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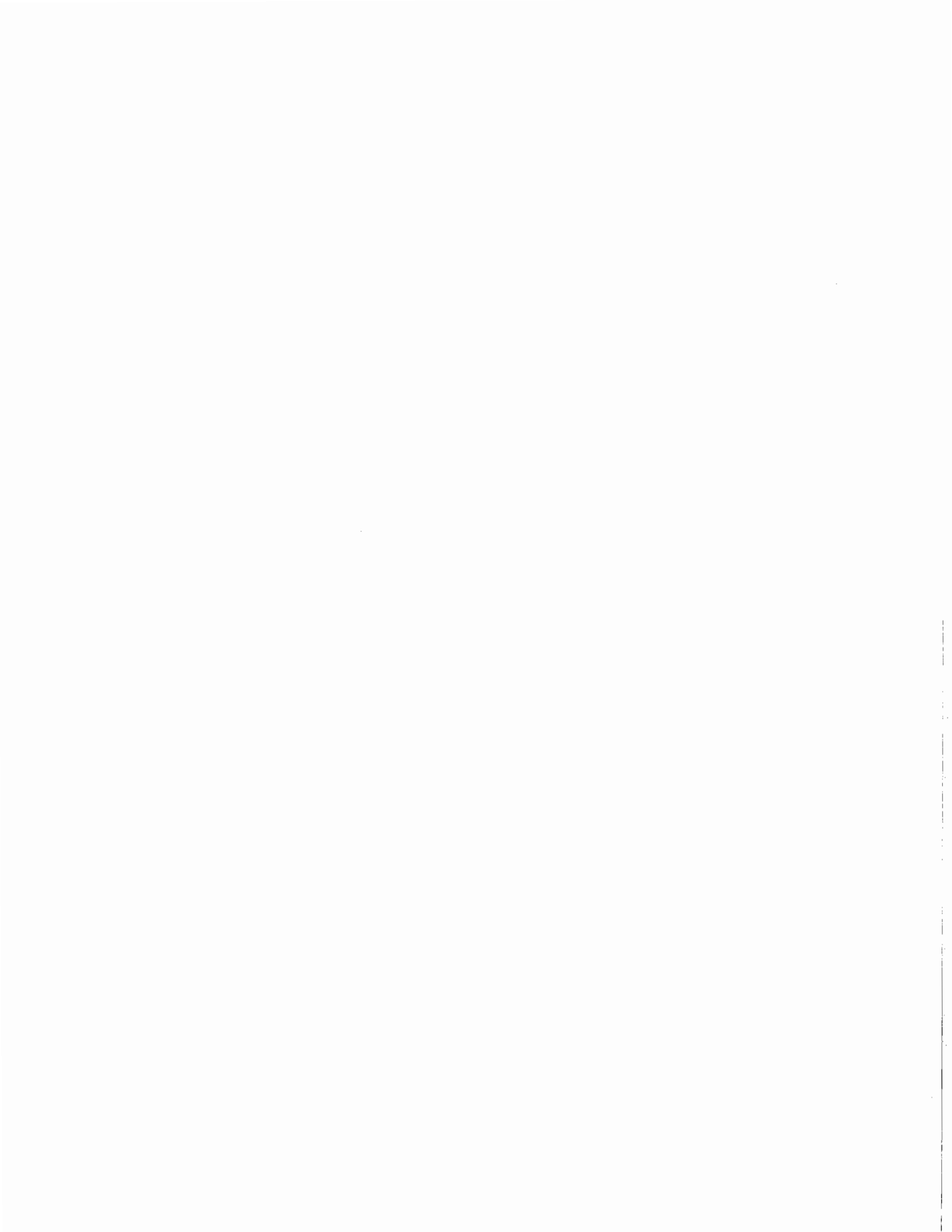
New Cities of the Pacific Rim

**Edward J. Blakely and
Robert J. Stimson**

with

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New Cities of the Pacific Rim



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CHAPTER 1

INTERDEPENDENCIES AND THE NEW URBAN FORM IN THE PACIFIC RIM CITIES

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THE PACIFIC AS THE CENTER AND NOT THE RIM

An extraordinary transformation in the world's economic order has transpired over the last two decades. In the 1960s and into the 1970s, the Atlantic region was the economic center of the world. By the late 1980s, world production, trade, and capital had shifted decisively— making the Pacific as the fastest-growing region of the world.

'Hyper-growth' was the theme and the title of Edward Chen's (1979) book on Asian economies. "The twenty-first century is generally regarded as the 'Age of the Far East' because of the productivity of this region in the world economy," observed Fong Chan Onn (1986) in his book *New Economic Dynamo*. Paul Kennedy (1988), in his tome *The Rise and Fall of the Great Powers*, has also written of the shift of global productive balance and economic and non-economic power towards the Pacific Rim.

It is anticipated that during the 1990s, global market growth potential will be immense. Most of that growth will be in the Pacific Rim, a US\$4 trillion market expanding at US\$5 billion a week (Kasarda, 1991). Nearly two-thirds of the world's population lives in Asia, which contains the fastest-growing economies, most of which are growing at real rates of two to six times that of the United States and Europe. *Fortune Magazine* (Fall 1990), in a special issue concentrating solely on Asia, dubbed the Pacific Rim the "mega-market of the 1990s."

Many commentators believe that the stage has been set during the 1980s for the world to enter the 'Pacific Century,' following the emergence of the Pacific Rim as the center of world economic activity in terms of production, trade, capital flows, tourism, and technology transfer. Whether or not it will be a 'Pacific Century,' it is inevitable that the era will be one that centers on new urban forms which will be the conduits for international cooperation and development. Major cities rather than nations will likely form the core of the emerging Pacific community. This 'Jane Jacobs' pattern is already apparent and becoming the acknowledged paradigm of international development.

This book is about interdependencies in the Pacific Rim and the new urban forms that have emerged and will develop in the major cities of the Rim. The trends and opportunities related to these interdependencies and their implications for urban development and planning in cities are discussed in the major city case studies in the chapters that follow.

In this chapter, we look at the broad trends underlying the emergence of the Pacific Rim as the center of world production; the interdependencies developing between cities in the Rim; and the implication of these processes for the form and structure of the Rim's major cities.

Evolution of a Pacific Focus

As suggested by Daly and Logan (1989) in their book *The Brittle Rim*,

regions are instantly attractive concepts because production and consumption take place at specific points in space, and societies operate through economic, social, and historical ties which link aggregates of people to places.

The nation-state is the building block around which international relationships are formed. Since the mid-nineteenth century, the 'world order' has centered around the most powerful nation-states, and their imperialism helped intensify the organization of production to serve the demands of the major metropolitan areas that assumed increasing importance. The role of cities as 'the core' was enhanced into the twentieth century with the division of labor, automation, and economies of scale, linked to the capital accumulation process of monopoly capitalism.

From the 'Eurocentric' world system which led up to World War I, Britain and France emerged in the 1920s and 1930s as center-stage in world diplomacy while suffering dwindling economic fortunes. Germany, Italy, and Japan emerged as militaristic and revisionist states in the vacuum created by disassociation of economic and military power (Kennedy, 1988). The USA had a distaste for assuming world economic leadership.

After World War II, a bipolar world was the order, characterized by the 'Cold War' and high levels of military spending by the superpowers, the USA and the USSR. Skirmishes inevitably erupted, with the Korean War of the early 1950s followed during the next two decades by communist insurgencies throughout Southeast Asia and the Vietnam War. China had 'gone.' The USA was the free world's 'policeman,' and Asia was the dominant focus, both economically and strategically. Significantly, Japan was to take off economically and never look back, under US sponsorship, which was also provided through aid and military spending, plus other investment, to Taiwan, South Korea, and Thailand. According to Kennedy (1988), bipolarity still predominated in military terms, but a multi-polarity in the economic world had been established. It was Pacific Asia which, while suffering as a theater of war, had gained enormously in economic terms from the failed effort to establish and maintain bipolarity.

The post-World War II decades saw the rejuvenation of European manufacturing, creating for a while two competing blocks (Europe and North America) straddling the Atlantic as the focus of the capitalist world's production, trade, and commerce.

When this simple division of the world's geography was challenged by the rise of Japan, followed by the rapid growth rates of other Asian countries, it appeared that the Orwellian properties of three great world regions had become a reality by 1984. (Daly and Logan, 1989)

However, other forces were operating to complicate this emerging picture of how the world was organized. We witnessed the emergence of transnational corporations (TNCs) as an essential part of the revival of manufacturing, and their practices of world-wide sourcing and transfer pricing. New technologies emerged that were readily transferable and more divisible. Profits fell and high wages sent manufacturers in search of low labor costs. Developing nations used import substitution and export-led programs that assisted the TNCs by offering subsidies and tax concessions, and the idea of the 'world factory' emerged through opportunities to divide and align manufacturing processes. OPEC oil price increases engineered immense shifts in trading surpluses in the 1970s. From the 1970s there was the rise of the new international financial system following the progressive (1971-73) dissembling of the Bretton Woods agreement. National economies saw the growth of the services sector and of services in trade.

Asia-Pacific nations were among the most successful to seize the opportunities presented by these processes of change. By the early 1980s the Pacific Rim region had emerged as the focus of world economic growth, production, and trade.

Magnitude of the Shift of Focus towards the Pacific Rim

The magnitude of the shift in focus from the Atlantic to the Pacific is identified in the data in Table 1-1. Indicative of the rapid economic growth and increasing importance of the Pacific Rim is the fact that the major Asia Pacific economies recorded an average growth in GDP of almost 7 percent in the 1980s. Japan became the world's second-largest economy after the USA and a financial superpower in its own right, its economy having grown at 12 percent annually between 1960 and 1970 (compared to a world rate of under 5 percent), and at a rate of up to 80 percent of the world rate since 1970. The four 'lesser dragons' of East Asia— South Korea, Hong Kong, Taiwan, and Singapore —averaged an outstanding 9 percent annual growth during the last two decades, and Thailand and Malaysia are about to join these Newly Industrialized Countries (NICs).

The 12 largest economies of the Western Pacific collectively now account for 24 percent of the World GNP, which is roughly equal to that of the USA. Since 1982, USA trade with the Asia-Pacific region has surpassed trade across the Atlantic, and is now 150 percent greater than trans-Atlantic

Table 1-1

Economic and Trade Data for Pacific Rim Countries

Country	GNP US\$m		GNP/Capita US\$		Exports US\$m		Imports US\$m		Exports as % GNP P*		Open Economy Index**	Net Growth rates%	Direct Foreign Invest-ment
	1980	1989	1980	1989	1980	1989	1980	1989	1980	1989		1965-	1990
													US\$m
United States	2,639,060	5,237,706	11,590	21,100	220,781	346,948	256,959	491,512	8	12	.160	1.6	3.75
Canada	243,760	500,337	10,180	19,020	67,730	114,066	62,529	113,230	28	25	.454	4.0	4,577
Australia	137,531	242,131	9,355	14,330	21,708	33,205	20,165	39,869	16	16	.302	1.7	5,362
New Zealand	22,430	39,437	6,860	11,800	5,407	8,586	5,427	8,757	24	27	.439	0.8	-233#
Japan	1,053,930	2,920,310	9,020	23,730	130,435	275,040	141,284	207,356	12	15	.165	4.3	-46.29
South Korea	56,930	186,467	1,490	4,400	17,439	62,283	22,063	61,347	31	34	.663	7.0	-105
Hong Kong	21,840*	59,242	4,310	10,320	19,720	28,731	22,399	72,154	90	135	1.704	6.3	282##
Singapore	10,670	28,058	4,420	10,450	19,377	44,600	24,013	49,605	182	191	3.357	7.0	4,489
Indonesia	66,370	87,936	450	490	21,909	21,773	10,837	16,360	33	26	.433	4.4	964
Malaysia	21,940	37,005	1,580	2,130	12,960	25,053	10,821	22,496	59	74	1.285	4.0	2,958
Philippines	34,460	42,754	710	700	5,787	7,747	8,295	10,732	17	25	.432	1.6	530
Thailand	31,550	64,937	670	1,170	6,501	20,059	9,213	25,768	21	36	.706	4.2	1,650#
Republic of China	267,810	393,006	270	360	18,139	52,538	19,505	59,140	7	14	.284	5.7	2,659

* Rounded to nearest percent point.

** The open economy index is the sum of merchandise exports and imports divided by GDP.

*** GNP refers to GDP estimate.

(1989).

(1987).

Sources: World Bank Atlas, 1983, 1990; World Bank, World Development Report, 1991; International Financial Statistics Yearbook, Suppl. 1991; World Tables 1991, World Bank.

trade, with a value approaching US\$300 billion annually. Between them Japan, South Korea, Taiwan, Hong Kong, Singapore, and China accounted for 20 percent of exports in world trade by the end of the 1980s, compared to 8 percent in the 1960s. Compound annual growth rates of merchandise exports from the Asia-Pacific region have been phenomenal, averaging 17 percent from 1960 to 1980 and 8 percent from 1960 to 1986 for Japan, and 35 percent from 1960-1986 for Taiwan. For the commodity producers of the Asia-Pacific region which have maintained close to 5 percent of world commodity exports over the three decades of 1960-1990, the trend has been towards a significant minority proportion of exports from manufacturing items, which in 1987 reached 47 percent in the Philippines, 40 percent in Malaysia, 27 percent in Australia, and 19 percent in Thailand.

USA trade with East Asia alone amounts for more than one-third of USA total foreign trade, and was valued at US\$100 billion in 1988-89. Of the 20 largest USA export markets, almost seven are now in the Asia-Pacific Region. USA involvement in East Asia now exceeds US\$33 billion, accounting for 23 percent of all overseas profits earned by American corporations.

The small-population nation of Australia in the Southwest Pacific has over half its export trade and over 40 percent of its imports with the Western Pacific countries, and seven out of ten of its markets are in Asia. About one-quarter of the total foreign investment in Australia comes from East Asian countries, and about one-fifth of its total overseas investment is to those countries.

By the 1980s, Hong Kong and Singapore were among the top five financial centers of the world; and along with Tokyo, Los Angeles, San Francisco, and Sydney comprised a set of major financial centers in the Pacific Rim. Japan emerged as the world's largest stock market in both capitalization and trading volume, and is now the largest supplier of investment capital for other Asian countries, as well as being a major investor in the USA, Canada, and Australia, and throughout the countries of the Asia-Pacific Region.

THE PACIFIC RIM AND THE NEW WORLD ORDER

The Pacific Rim region, and particularly the Asia-Pacific nations within it, represents an incredible story of development, much of it based on a brilliant trading record. Overall, the countries of the Pacific Rim are emerging as the major players in the world's trade and financial system. They are increasingly the engine-room of global economic growth in a region that is fully integrated into the world economy.

Fortune Magazine (1989) observed, in a special issue on Asia in the 1990s, that these nations:

... vary strikingly in size, shape and political stripe yet the Pacific Rim countries developing fastest share an aptitude for molding new Western technologies with old Oriental virtues — discipline, patience, and diligence. What's more, their governments are actively seeking to team up with indigenous entrepreneurs. Chauvinism and corruption can still kill a deal, but the old antagonisms bred of colonization and war are fading. . . .

. . . . On the surface, the culture gap between East and West seems to be disappearing. Soaring skyscrapers and roaring subways, the blare of rock music and the blur of blue jeans along the street, heighten the impression that 'these folks are like us.' They're not. Even in high-living Hong Kong, where chauffeured Rolls Royces crowd each other on the narrow roads, it's not unusual to see a bicyclist pedaling past with a side of pork slung over the back wheel.

The countries of the Pacific are on the cutting edge of profound changes that are symptomatic of the new economic order of trends that will shape the world in the 21st century. These changes include information and technology development as the dominant forces in the global economy and not raw materials; a re-alignment of the international political economy that can accommodate communism and capitalism in the same trade system; and world-wide trends towards regional economic development and entrepreneurship as the foundation for national economies, rather than macro-economic policy.

These trends require that the international institutions that have guided the world through the post-war years need "reassessment, refurbishing, or recreation, for in Asia as in Europe a new international era is upon us" (Solomon, 1989).

The three features of the global system that are of paramount significance in restructuring activity in both nations and cities are: the evolution of the international financial system, the changing pattern of world trade, and the changing base of the production system. It is these factors that largely underlie the emergence of the Pacific Rim and its major cities. They are worthy of close examination.

The International Financial System

Up to the early 1970s, national governments exercised rigid supervision of money flows, money price, and exchange values. The 1944 Bretton Woods agreement had established the International Monetary Fund (IMF), and had fixed exchange values to the US dollar, which was linked to gold. However, the Bretton Woods agreement disintegrated as the USA trade surplus diminished and commercial banks circulated a pool of unsupervised funds in the Euromarkets; and with the OPEC price rises of the early 1970s, the world entered a period of inflation, unemployment, and fluctuating exchange rates. This coincided with technological and economic transformations that ended the dominance of Europe and the USA over world trade. As a result, commercial banks rose to dominate the international financial system. The 1970s and 1980s became an era of fast money, skyrocketing international debt, and a major switch in trade surpluses, with the USA going into increasing deficit, and Japan and the NICs of Asia accumulating massive surpluses in terms of both trade and foreign reserves. Poor nations and many commodity producers met hard times. Protectionist sentiments surged. The USA, Canada, Australia, and New Zealand accumulated trade deficits and experienced currency depreciation. In Asia, Japan became a dominant nation in trade and finance; Taiwan accumulated the world's largest foreign reserves; South Korea moved into trade surplus and

became competitive in ship-building, steel, and electronics; Hong Kong and Singapore emerged as financial centers and showed resilience in trade and manufacturing (Daly and Logan, 1989).

Financial deregulation proceeded throughout the 1970s and 1980s, with commercial banks creating huge financial empires spanning the world. The Asia-Pacific region was to play a key role in the creation and operation of global markets, enhanced by its strategic location between Europe and North America.

Technological change through electronic fund transfer (EFT) facilitated the internationalization of capital. The Society for Worldwide Interbank Financial Telecommunications (SWIFT), which began in Brussels in 1973, had spread by 1987 to cover 900 banks in 31 countries. By 1987 it had encompassed Asia and Australia, and Latin America by 1988.

On a global scale, financial centers in key major cities of the world experienced enormous catalytic effects through the agglomeration of financial and banking activities. While London, New York, and a few European cities had dominated world finance until the 1970s, the internationalization of the finance system favoured the creation and rapid growth of new world financial centers, particularly in the Asia-Pacific region. By the late 1970s, Hong Kong and Singapore were among the top five financial centers of the world. On the west coast of America, Los Angeles's downtown rejuvenation was associated with its emergence as the second-ranking financial center in the USA after New York. Tokyo emerged as the world's largest financial center. Elsewhere in the Pacific Rim, nations and cities sought to establish an international financial market, such as Manila in the Philippines, and Sydney and Melbourne in Australia.

Deregulation and the internationalization of the world's financial system saw a shift to securities, away from bank borrowing. Debt was increasingly used as a primary means of financing, manufacturing, and commercial activities. In the 1980s, debt skyrocketed. In US corporations from 1979 to 1984, the ratio of net debt to net worth rose from 70 to 82 percent in manufactures, and from 45 to 57 percent in inflated terms (Daly and Logan, 1989).

Perhaps the most significant development in the 1980s was the emergence of Japan as the major funder of the national debt of many countries, including the USA. Banks began to play an increasing and critical role in Japan's expansion as a financial giant; by the late 1980s, 23 of the 25 top-ranked banks by *Fortune Magazine* in the Pacific Rim were Japanese. The assets of the top ten Japanese banks had grown 62 percent, between 1986 to 1989, to almost US\$53 trillion, compared with the assets of the top ten US banks of US\$859 billion.

Paralleling the developments in banking was the emergence of global non-banking markets. A world stock market emerged with a 24-hour trading book spanning the globe. Of the 236 sets of shares identified by *Euromoney* in 1984, 84 were in the USA, 49 in Japan, 17 in West Germany, 16 in Australia, 13 in the UK, 10 in Canada, 10 in Sweden, and 12 in other nations (Daly and Logan, 1989). In the Pacific Rim region, Los Angeles, Tokyo, Hong Kong, and Sydney operated major stock

exchanges, and one in Singapore also emerged. Stock markets began to develop too in Malaysia and Thailand.

In addition to the financial institutions, cash-rich corporations entered money markets, and it has been the Japanese companies benefitting from large revenues and a strong Yen that has encouraged foreign investment. By 1985, Japanese companies were investing half of all Japanese money invested in USA securities. Transnational corporation growth has been dominated by Japan, and *Fortune Magazine's* list of the largest 150 industrial companies (ranked by sales) in the Pacific Rim showed that all but 23 were Japanese. However, two of the top ten were South Korean. Japanese automobile-makers and electronics manufacturers dominated the list (*Fortune Magazine*, 1989).

Nevertheless, all of this has had its negative side, and the future is uncertain. Debt levels have risen rapidly in the USA, Canada, Australia, and other nations. In 1987 the stock market crashed, followed by a property slump and recession from late 1989 or early 1990 in many nations. Many banks and financial institutions have been under pressure, and some have collapsed, as evidenced by the worldwide banking crisis that started in the US and has swept the Western world. Japan is presented with a particular quandary as it faced increasing pressure to dispose of its surpluses. At a time when its level of world savings is shrinking in the 1990s, moreover, the rest of the world has attempted to force a consumer boom on Japan, while its population is ageing rapidly. The advent of the European Community in 1992, combined with the collapse of the Eastern European Communist bloc, has profound implications for the world financial system. And the 1991-92 downturn in the Japanese stock market and partial collapse of the Tokyo property market has created uncertainty about Japan's continued leading role as an investor in the world's economies.

The changes in the world financial system of the last two decades have served to foster increasing interdependencies between nations in the Pacific Rim. Some of its major cities have become globally dominant, while others are major players regionally in world financial markets.

Trade and Investment: The Basis of Pacific Rim Interaction

Following World War II, it was American dominance, in terms of industrial capacity and a huge trade surplus, that espoused free trade as the world model. But, as Daly and Logan (1989) point out, resources, technical skills, capital, and technical knowledge are not evenly spread. Uneven development and production produce uneven rewards, leading to trade surpluses and deficits. Politics inevitably intervenes, leading to protectionist policies, trading blocs, and manipulation of exchange rates. But the development of global production and marketing, global financing, the utilization of the cheapest sources of materials, and the most effective use of cheap labor— in which productive processes are broken into elemental parts and spread across the world to minimize cost and maximize profits— have occurred with the rise of TNCs. In addition, new products have emerged, and services — especially producer services — have become the most profitable

components of international trade. Overlying these trends is competition, uncertainty, and risk, with its associated opportunities.

Knight (1987) put it this way:

The 1980s witnessed a different kind of war. It started in Asia, whose onslaughts on world markets could not be resisted by mere protectionism. It was given lethal power against traditional manufacturing areas by skipjumps in science (mostly in America) and production technology (mostly in Japan). An upheaval has occurred that has turned virtually every conventional wisdom on its head.

Ironically, the spectacular success of the Asia-Pacific region in trade has been due largely to closed-door, rather than open-door, policies. Japanese and South Korean manufacturers have received financial and resource support, exchange rates have been manipulated, and capital markets have been controlled to enable these nations to out-trade their competitors. Hong Kong and Singapore have capitalized on their favorable locations as free trade and city states, and even Malaysia and the Philippines created free-trade (export processing) zones. Protectionism has been practiced by the USA in the agricultural export sector. The USA and Canada have formed a trade bloc, as have Australia and New Zealand. Overall, the Pacific Rim represents a region of conflict between the rhetoric of free trade principles and the practices of protectionism.

Despite this, the economic growth of the Asia-Pacific region has been based largely on its brilliant trading record. However, as Richardson (1989) reminds us, the most striking characteristic of the Pacific Rim region is the dominance of the USA and Japan. All the other Asia-Pacific countries combined have only about two-thirds of Japan's GNP, and about one-third of that of the USA.

Over the past two decades, a system of *triangular trade* has developed, as illustrated in Figure 1-1. In this triangular relationship, Japan supplies consumer and capital goods to the USA and to other Asia-Pacific countries; the USA supplies a mix of manufacturing and agricultural goods to the region; the commodity producers supply Japan with raw materials and foodstuffs; and the NICs send consumer goods to the USA.

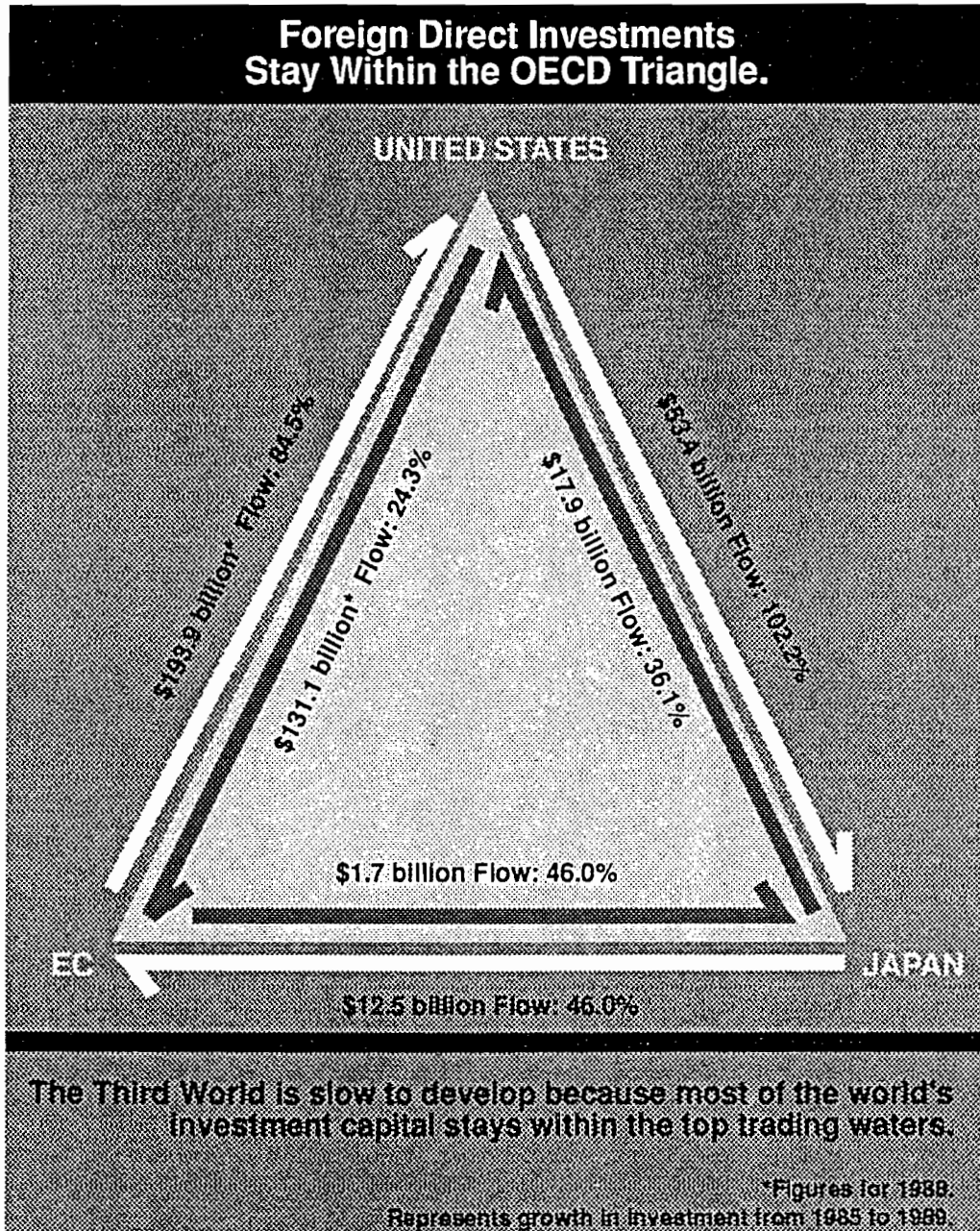
Daly and Logan (1989) summarize the pattern as follows:

In 1987 it (triangular trade) accounted for around a quarter of the trade of the manufacturing nations of the region, and about 17 percent of that of the commodity-based nations. Japan and USA together accounted for over 50 percent of Indonesia's and South Korea's total trade, and over 30 percent of the total trade of the other countries of the region. The Japan-USA link was critical — one third of Japan's trade was concentrated on the USA. The fate of the region would be sealed largely by the behavior of the two dominant economic powers, and at several points during the 1980s they threatened to engage in a major trade war.

Only four countries (Japan, the USA, Canada, and Australia) are foreign direct investment (FDI) net exporters on any scale, with Japan dominating everyone else. But the combined FDI of the Pacific Rim countries amounts to under one-third of the net exports of these four FDI exporters. Thus, Japan, the USA, and Canada have substantial FDI involvement outside Asia and the Pacific Rim.

Figure 1-1

Triangular Trade



Source: UNCTC, World Investment Directory

It is significant that while Japan focused the big majority of its FDI in the Asia region in the 1970s, this had fallen to 14 percent of total FDI by the late 1980s, and to 25 percent for the whole of the Western Pacific, while 45 percent of FDI went to the USA. Also, while manufacturing was the focus of Japanese investment in Asia in the early 1970s (40 percent of all foreign investment in manufacturing), by the end of the 1980s this was down to about one-quarter, with the Asia-Pacific region taking one-third of this (Daly and Logan, 1989). Japan moved its investments into trade and services (including banking) after 1978, the peak year of concentration in manufacturing, and the scale of projects investment became increasingly enormous.

Richardson (1989) draws attention to the danger of overemphasizing the apparent degree of trade integration among Pacific Rim nations. He cites how European countries are much more integrated with each other than are the Asia Pacific countries; while Asia is more involved in trade with the USA than with Europe. Also, intra-Asian trade is about 15 percent of Asian trade, while trade with the USA is 40 percent of the total. Inter-Europe trade is 50 percent of total European trade, but trade with the USA is only 10 percent of the total, a disparity which is sure to change after 1992. According to Richardson (1989):

... one explanation of the limited degree of intra-Asian trade, of course, is the differences in levels of economic development and per capita incomes among Asian countries, and this point is even stronger for a more geographically inclusive Pacific Rim.

However, the overall pattern has been one where trade growth within the Pacific Rim has become more significant because of the overall slow growth of trade in the rest of the world, as evidenced by the fact that in the 1980s Japan's exports in the Pacific Rim accounted for 90 percent of the total growth in Japan's exports, with 60 percent going to the USA, and 30 percent to Asia. Investment flows and simple geographic proximity have dictated that the Asia-Pacific countries would be highly dependent on the USA and Japan for trade and growth. Each nation of the region sends more of its trade to the USA and/or Japan than to any other nation or region, except for Singapore and Malaysia, which have strong historic economic linkages to the UK (Daly and Logan, 1989).

Of special significance, however, in the triangular trade relationships in the Pacific Rim, have been the changes since the 1970s in the composition and the increasing diversity of this trade.

In the 1970s, Japan exported consumer goods, especially electronic goods and automobiles, to the USA in exchange for food and some capital and high-technology goods, and sent intermediate and capital goods to Asia in exchange for raw materials. Asia exported processed and semi-processed goods to the USA, and to a lesser extent Japan, and received manufactured goods and other products from the USA. This system was based on the investment flows from the USA and Japan. Australia was a major supplier of raw materials and agricultural products to Japan and other Asian nations.

By the early 1980s, Asian countries began to reap the benefits of direct investments and borrowed capital, and their imports of plant, machinery, iron, and steel increased, while their exports of

manufactured goods increased, particularly from Thailand, the Philippines, and Malaysia. The larger NICs (North Korea and Taiwan) exported predominantly manufactured goods, especially clothing, textiles, and electrical goods and instruments. Singapore exported electrical goods, rubber goods, and shipping services, and was a major petroleum products refiner for the Asia region. Hong Kong and Singapore were importers of food, machinery, oil, and other raw materials.

During the mid-1980s, significant shifts occurred as South Korea and Taiwan expanded their manufacturing bases into high-technology industries and accumulated large trade surpluses. Hong Kong and Singapore developed a substantial service sectors. Indonesia and Malaysia benefited briefly from further OPEC price rises, and, with other nations, benefited from transnational corporation investment in manufacturing processes related to cheap labor inputs. But Asian trade surpluses with Japan fell by approximately 50 percent in the first half of the 1980s, while regional imports from Japan grew by over 50 percent. The USA refloated its economy as its trade deficit grew, resulting in a strengthening of the triangular trade nexus in the Pacific Rim.

By the late 1980s, there was an oversupply of manufactured goods; a decline in production investments; a rush of takeovers and mergers which absorbed huge sums of money; and intensified trade battles through dumping, protectionism, barter trade, and commodity prices collapses— and, of course, there was the 1987 stock market crash. According to Daly and Logan (1989),

Pacific-Asia, caught by the inexorable strength of the triangular trading relationship, was still regarded as one of the most promising regions in the world, but its hope for substantial or independent growth appeared to be severely curtailed.

The Changing Production System: The Shift to Knowledge-Intensive Activity

A third factor to consider in looking at the increasing interdependence and growth of the Pacific Rim is the changing base of the productive system.

It was the 1970s OPEC price rises which triggered the end of the post-war industrial boom based on energy-intensive, heavy, large-scale, mass-production-concentrated manufacturing. Thus began the shift from the energy-intensive to the knowledge-intensive production system.

The post-war evolution of Japan as an industrial giant was based on the old industrial order, and the initial industrial growth of many other Asian countries was due to their cost advantages for labor-intensive manufacturing.

But this is only the beginning of the story. First Japan, and later South Korea, Taiwan, Hong Kong, and Singapore (the NICs), and more recently the emerging NICs of Thailand, Malaysia, Indonesia, and the Philippines, have all been quick to adopt and develop new technologies. Apart from benefiting from investment and the growth associated with trade benefits derived from cheap-labor manufacturing industries, such as textiles and clothing, the new technology-transfer industries, such as electronics, also became 'naturals' for Asian nations to develop. TNCs sought

locations where governments were willing to relax restrictions on labor practices, reduce taxes, allow any repatriation of profits, and even subsidize operations. "Pacific-Asia had a host of governments anxious to be accommodating" (Daly and Logan, 1989). Added to these factors was the internationalization and deregulation of the financial system. Places like Hong Kong and Singapore were obvious targets for investment in these activities.

This internationalization of the production process acted as a major force shaping the pattern of triangular trade that emerged in the Pacific Rim, as discussed above.

It should be explained that much of the success of Asian nations, and especially Japan, in developing their manufacturing sectors, was their ability to organize labor and embrace technologies to establish basic industries such as steel, ship-building, and automobiles, and their ability to out-compete their rivals in the USA, Canada, and Australia. So successful have they been that, in industries such as automobile manufacturing, the USA was forced into rationalization, restructuring, and revolutionary innovation in technological and human resource management.

But it is the shift to *knowledge-intensive production* that represents the new order, which according to Hawken (1983) is:

based on the changing ratio between the mass and information contained in goods and services. Mass means energy, materials and embodied resources required to perform a service. While the mass economy was characterized by economies of scale, by many goods being produced and consumed by many people, the information economy is characterized by people producing and consuming smaller numbers of goods that contain more information — design, utility, craft, desirability and knowledge added to mass.

Computer-aided design and the grouping of machine tools into flexible manufacturing systems and computer-integrated manufacturing have resulted in fundamental changes in the organization of production. *The Economist* (1986, July 5) lists them, to include: a disbursement of production to ever-smaller manufacturing units; the lessening importance of labor costs; the centralizing of design activities in headquarter locations; increasing flexibility in manufacturing, permitting a wide variety of products to be produced at lower cost, and allowing firms to operate at low levels of capacity; cheap methods of repairing faults through computerized diagnostics; new opportunities for boosting economies of scale in research and development, sales, and marketing; and a rise in subcontracting with growing specialized industrial boutiques run by small-independent operators.

It is evident that automation and robotization are diminishing the locational advantages of dispersed manufacturing to cheap labor locations. Product cycles are being reduced to about three years. Research and development and risk capital are increasingly important factors giving the older industrial nations advantages. And it is likely that technology may become less transferable, and that the advantages of economies of scale and single-function machines will be less significant. Thus, "the age of mass production is passing, and with it the easy pickings of the Asian nations in the 1970s and 1980s" (Daly and Logan 1989).

Furthermore, the clearcut distinction between manufacturing and service sectors is becoming blurred through this rise of knowledge-intensive manufacturing. The nations and regions that have the human capacity to develop them will achieve remarkable regional advantages, as evidenced by Silicon Valley in the San Francisco Bay Area. As Daly and Logan (1989) aptly state:

The lessons for Pacific-Asian nations are stark. In this new world of manufacturing — and biotechnology, new materials and improvements suggest that the world is only on the brink of the changes that will occur — the prescriptions which have brought success will not apply in the future.

However, it is when we consider the juxtaposition of the changing production system and transportation technology innovations that we see the significance and magnitude of the forces of globalization. As documented by Kasarda (1991), we are witnessing a new era through three irreversible forces:

(a) The globalization of economic transitions; (b) fundamental changes in manufacturing methods from large, uniform batches to making customized goods on short notice and to 'just-in-time' (J-I-T) focusses that substantially cut production and delivery cycles to minimize costs; and (c) a growing requirement of business to ship products by air rather than by surface.

Cities like Tokyo, Hong Kong, Taipei, Singapore, Sydney, Los Angeles, San Francisco, Seattle, and Vancouver are exhibiting the implications of the interface between air cargo transshipment, seaports, highway networks and rail networks, and J-I-T inventory global manufacturing systems as they emerge as focal points. Airports in particular are assuming increasing importance in this web of economic interrelationships, and the ability for cities to develop the visions and provide the competition advantage for inter-modal transshipment, within the J-I-T production and delivery process, will largely influence their economic development, the urban form of city regions, and their place within the new global economy.

PACIFIC RIM URBANIZATION

It is difficult to generalize about urbanization in the Pacific Rim. Richardson (1989) says that this is because it is a region of extremes in urban pattern, ranging from the 'city states' of Singapore and Hong Kong and other high levels of urbanization that characterized the developed nations of the USA, Canada, Australia, and New Zealand, to predominantly rural nations such as China, Indonesia, and Thailand. Many countries have intermediate levels of urbanization. In addition, the region contains sharp contrasts in ratio of growth, from under 2 percent per annum, in the developed countries, to rapid rates of growth in excess of 4 percent per annum in developing countries. These differences are illustrated in Table 1-2.

Differences in the size of countries, both geographically and in population, affect the number of larger cities in countries throughout the Pacific Rim. The two nations largest in size and population, the USA and China, have 65 and 78 big cities, respectively; while Japan, Indonesia, South

Table 1-2
Urbanization in Pacific Rim Countries

Country	Urban Population Share (%)		Urban Growth Rate (%)		Number of Cities >1/2 m.	% of Urban Population in Cities > 1 m. 1990	Share of Largest City in Urban Population (%) 1990
	1965	1989	1965-80	1980-89			
United States	72	75	1.2	1.2	65	48	2
Canada	73	77	1.5	1.1	1	39	4
Japan	67	77	2.1	0.7	9	36	19
Korea	32	71	5.8	3.6	7	69	36
Singapore	100	100	1.6	1.2	1	100	100
Hong Kong	89	44	2.1	1.7	1	100	100
Taiwan	47	71	4.5	-	2	41	26
PRC	18	53	2.3	-	78	27	2
Indonesia	16	30	4.8	5.4	9	33	17
Philippines	32	42	4.0	3.8	2	32	32
Malaysia	26	42	6.0	4.9	1	22	22
Thailand	13	22	5.1	4.7	1	57	57
Australia	83	86	2.0	1.4	5	59	2
New Zealand	79	84	1.6	0.8	1	-	12

* Taiwan data from C. Tsay, "The pattern of urban growth in Taiwan," paper prepared for Association of American Geographers Meeting, Minneapolis, May 1986.

Sources: World Bank, *World Development Report, 1991*.

Korea, and Australia have between 5 and 10 cities of over 500,000 population. But, regardless of the number of large cities, a significant factor is the high levels of urbanization; and only in Taiwan, Malaysia, and Canada is the share of the total population in major urban areas less than one-third. While the experiences of individual Euro-Asian countries vary, levels of urbanization growth in general have been slow to moderate, reflecting the overall high levels of urbanization achieved.

The urban population of the Asia-Pacific region is likely to grow rapidly, in absolute terms, to reach about 470 million by the year 2000 (Cho and Bauer, 1987). Richardson (1989) suggests that:

the extreme diversity in Pacific Rim urbanization patterns suggests it may be more fruitful to focus on some of the larger cities in Pacific Rim countries than to attempt spurious generalizations about urban development in general.

The populations of the major cities and their projected growth rates are given in Table 1-3. The cities listed are selective primate cities, major cities, or large port cities, and cities with populations of over one million. It is staggering that by the year 2000, ten of the cities are projected to have populations of 10 million or more. However, the growth rate of the cities is slowing, and it is anticipated to be less than one percent per annum in over one-third of the cities in the last few years of the 1990s.

Projecting population trends and growth is fraught with difficulties. There may be a relationship between economic development and dispersal of urbanization, but Richardson and Schwartz (1988) find little support for this contention in the Pacific Rim countries. Thus, it is difficult to be conclusive about the benefits likely to be gained by the smaller cities from continued economic growth. Richardson (1989) suggests that a more plausible answer is that:

the impact of dynamic economic growth in the Pacific Rim and its larger cities is expressed more in other ways (e.g. transformation of metropolitan economies, growth include values other 'pecuniary externalities,' pressure on transport systems and the urban environment) than in terms of population growth. Of course, strong economic growth in a metropolitan area is likely to induce some immigration, but the key parameters of metropolitan population growth may be more demographic (e.g. the role of national population growth, changes in the age structure of the population) than economic.

But Logan and Salih (1982), Portes and Walton (1981), and Lo and Salih (1987) have mounted plausible arguments relating urbanization to the two structural processes of the changing international division of labor, which involve the redeployment of industry to the periphery of the world economy, particularly to the NICs, as well as to the emerging new regional divisions of labor within Asia, which, as explained by McGee (1984), involves a complex pattern of relations between countries in the Pacific Rim.

Lo and Salih (1987) draw attention to the markedly different types of structural relationships and restructuring of national economies and urbanization trends evident between the nations of Southeast Asia and East Asia. In Southeast Asia, on the one hand, there is import substitution through capital-intensive industrialization, which reinforces urban primacy; and, on the other hand,

Table 1-3

Growth of Pacific Rim Cities, 1950-2000

City	Population				Growth Rate (%)		% of National Urban Pop., 1990
	1950	1980	1990	2000	1970-80	1995-2000	
Los Angeles	4.07	9.53	10.48	10.99	1.24	0.35	5.7
San Francisco	2.04	3.20	3.40	3.55	0.63	0.40	1.9
Seattle	1.12	2.09	2.41	2.63	1.4	0.86	1.3
San Diego	0.56	1.86	2.46	2.98	2.8	1.9	1.4
Tokyo	6.74	17.67	19.28	20.22	1.52	0.50	20.2
Osaka	3.83	8.71	9.82	10.49	1.81	0.65	10.3
Kitakyushu	0.94	1.91	2.13	2.22	1.80	0.40	2.2
Nagoya	0.96	2.00	2.03	2.03	0.56	0.00	2.1
Seoul	1.11	8.47	11.66	13.77	3.94	1.33	36.6
Pusan	1.04	3.19	4.90	6.20	5.11	1.90	15.4
Singapore	0.81	2.41	2.70	2.95	1.31	0.78	100.0
Hong Kong	1.75	4.61	5.62	6.37	2.94	1.04	100.0
Taipei	0.60	2.16	2.84	3.68	3.30	2.61	20.2
Shanghai	10.42	11.75	12.35	14.30	0.26	1.78	5.1
Beijing	6.74	9.06	9.59	11.17	0.33	1.84	4.0
Vancouver	0.67	1.26	1.48	1.71	1.67	0.78	6.9
Jakarta	1.82	6.65	9.46	13.25	3.71	3.22	18.1
Manila	1.57	5.96	8.26	11.07	3.37	2.80	32.0
Kuala Lumpur	0.21	0.97	1.75	2.63	7.04	3.53	23.19
Bangkok	1.44	4.96	7.38	10.71	4.03	3.63	58.5
Sydney	1.65	3.393	3.93	4.23	2.36	0.75	27.5
Melbourne	1.49	2.88	3.23	3.41	1.98	0.62	22.6
Wellington	0.13	0.30	0.63	0.92	8.51	3.08	21.7

Sources: All data from United Nations, *The Prospects of World Urbanization Revised as of 1984-85*, New York, United Nations, 1987, except for Taipei from Tsay, *op. cit.*, and for Seattle and San Diego from Bureau of the Census, *City and Country Data Book*, Washington, D.C.: US Government Printing Office, annual.

there is resource export promotion with forward linkages to the advanced countries. These two processes are not integrated to enable internalization of the multiplier, and urban growth rates may be U-shaped with respect to size, but the tendency is to the primate city. Decentralization from the primate region is a major concern and difficult to achieve. In East Asia, changing comparative advantage has enabled countries of the region to shift production to export-fed industrialization, owing to redeployment processes. Also, policies to improve agricultural productivity, through institution reform and technological improvement, have occurred, and agricultural-industrial integration and internalization of multiplier effects exist at both the local and global levels. At the regional level, efficiency and metropolitan decentralization are primary issues, higher rates of industrial labor absorption capacity permit higher urbanization rates, and a balanced urban system develops.

PACIFIC RIM INTERDEPENDENCIES AND CITIES IN THE NEW ECONOMIC ORDER

It is significant that the Pacific Rim contains many of the now-great cities of the world, and certainly it contains most of the emerging great cities. Some of them have been the source of the innovations that have created the new economic order, and increasingly they are the location of activities associated with the knowledge-intensive activities of the new economic order. These major cities of the Pacific Rim — Tokyo, Los Angeles, San Francisco, Sydney, Taipei, Seoul, Singapore, and Hong Kong (the last two being city states) — interact with each other so frequently that they are pulling together a new alignment of power and social dynamics. As Drucker (1986) puts it, the emerging Pacific Rim city system has so drastically changed the world economic order with dynamic impacts on communities, individuals, firms, and nations that "we are in the midst of a socioeconomic system that has already changed in its foundation and its structure — and in all probability the change is irreversible."

The forces underlying the emergence of a new global order of financial, trading, and production systems have created an economic dynamism, interdependence, and fluidity that represent an historic challenge for the nations of the region. The Australian Minister for Foreign Affairs and Trade (1989), summarized the situation in the Pacific Rim in these terms:

The successful economies (of the Asia Pacific) have displayed great skill in taking advantage of the relatively open post-war international economic order by pursuing export oriented industrial strategies. The result has been a region where trading instincts are outward looking, a region which is probably the most committed of all regions to trade liberalization. . . . and in addition. . . . the economics of the region have also become increasingly linked. As a process of 'shifting complementarities' works its way through the region, the pattern of regional trade and investment, the direction of technology flows, and interlinkages in sectors such as tourism, have all combined to produce a regional economic map crisscrossed with the ties of interdependence. . . . Dynamism and interdependence of this order has not been without problems and tensions. Those tensions largely reflect the major trading imbalances between the US, on the one hand, and Japan and the NICs on the other.

These tensions are represented in the international system but not in the system of cities. While the nations of the Pacific Rim struggle with their international decisions, the cities of the Pacific Rim are already internationalized, albeit to differing degrees of intensity. The basis of international cooperation, trade, capital flows, production process sharing, tourism, and so forth, is focused through the active intercourse of intellectual and human trade among the urban systems of the region; for it is the major cities that are assuming increasing importance in the new order of "knowledge-intensive" production systems. It is ironic that the modern information-based economy has not eliminated the functions of larger and particularly larger central, cities. Rather, as Moss (1989) puts it:

The challenge for students of urban life is to explain how it is possible that cities have not become obsolete when communications technology reduces the cost of interaction and overcomes traditional barriers of physical space. The growing body of knowledge on the relationship of information technology to urban development emphasizes issues — such as the location of office activities, the internationalization of business services, employment and labor force skills, and regional development policy — that provide the conceptual underpinning for systematic inquiry on cities and communities.

Moss claims that three important issues are: the effects of information-intensive systems and the physical development within larger cities; how the elements of this new order affect the relationship of cities to each other; and how the activities undertaken in the new economic order affect the development of urban infrastructure in cities.

Enhanced Centrality and Concentration

Opinion is now firm that the implications of the new economic order, and the resulting increasing interdependencies for the major cities, are that their labor forces and economic structures are first affected, and that *centrality* and *concentration* are becoming more important and evident (Fox-Przewoski, 1989). This has been the conclusion of numerous studies over the last few years.

For example, Abler (1987) reported that "all the indicators suggest that information and network societies are metropolitan societies, and that they will continue to be so, and that cities at the top of the hierarchy will be the first to receive innovative applications." Wigan (1985) concludes that "the functions of the central city meeting place for knowledge-based workers will be reinforced for sometime, until universal access (in terms of both physical and monetary constraints) is available to all."

Brugger and Stuckey (1987) suggest that "central urban areas will gain in importance as the information intensity of innovative activity continues to rise." Malecki and Nijkamp (1988) found that an "incubator profile," and Castells (1987) considers that a "milieu of innovation," like agglomeration factors, are most likely to be found in or near major cities, where positive feedback effects and a continued process of innovation reinforce concentration.

Noyelle (1987) found that "structural changes have had a powerful controlling effect on the location of new economic activities and contributed to putting a new premium of control on plan location."

Clark (1990) argues that the popularity of mergers and leveraged buy-outs has reinforced the hegemony of financial capitals where productive corporate assets can be converted into financial assets, and that

in essence, the logic of centralized control and decentralized production (so fundamental to textbook treatment of the geography of corporate management) has been taken-over; centralized control in other centers is now necessary for the efficient conversion of assets and decentralized production networks are assets to be sold rather than managed.

Thrift (1987) concluded that international financial centers attract the organizations of commercial capital to group together to be near their clients; to be in close proximity to relevant markets; and to tap into information on markets as well as on the operations, banking, industrial corporations, and the state in a rapid and efficient manner.

Glasmeier (1985) claimed that advanced manufacturing industry using computer-assisted production methods is biased towards major urban areas, which have the strongest amenities of high-tech jobs and skills pools and the space-saving aspect of flexible manufacturing that enables industries to expand within large cities. According to Schoenberger (1987), related suppliers and information-based business services seek proximity to major clients and to the agglomeration economics of metropolitan areas.

The Pacific versus the European City

In looking at cities and urbanization in the Pacific Rim we are struck by two things. First, cities in the Rim are radically different from their European— and even east coast USA— counterparts. Second, in considering urban development in the Rim we are concerned with the development of cities located on the Pacific Rim itself rather than urban development per se within the Rim countries (Richardson, 1989). We suggest that, in the context of the Pacific Rim, the new ordering of cities has a form that we live but often do not see.

The new Pacific Rim urban system is vastly different from the European city. The dimension of this system, the interconnections and organization, we argue, create the dynamic and intellectual template upon which the new international order has been derived. Here we briefly sketch those features of the Pacific Rim city as a prelude to the city case-study chapters that follow.

Euro-urban planning has produced the notion of centrality of civic form. All institutions and city life spring from the density at the urban core. By contrast, the cities of the Pacific revel in their suburban systems and satellite communities. Los Angeles is the archetype configuration of many Pacific cities. That is not to say that there is no central place. Rather, the Pacific urban form

is not dependent upon a single central core location as the linchpin of the system. Even in cities like Tokyo there are strong, well-recognized satellites and suburbs that perform urban, and predominantly metropolitan-linked, functions.

In many instances, the urban form of the Pacific city is reflected in a group of inter-related communities, such as the connections between San Francisco, San Jose, Oakland, and Walnut Creek which form the Bay Area conurbation. This new pattern is reflected in the Los Angeles-Orange County-San Fernando-San Bernardino Valley complex. Leinberger and Lockwood (1986) label these as *new urban villages* as the standard form of urban evolution in major cities of the Pacific Rim.

There are three inter-related reasons for this trend: knowledge-based activities, internationalized functions, and interconnectivity through telecommunications. While these processes are occurring globally in cities, it is the Pacific city that is exhibiting predominant new spatial forms derived from the urban impacts.

Towards Knowledge-Based Urban Development

Pacific Rim countries, irrespective of their founding, were reborn at the end of World War II. While European cities were re-built, the Pacific cities were reorganized. The post-World War II and Korean War period ushered in an urban renaissance for many Pacific Rim nations. Some, like Japan, China, and later Korea, had been destroyed. However, the physical damage of the wars was not as significant as the development of new industrial forms.

Such diverse places as Sydney, Manila, Tokyo, Bangkok, Hong Kong, San Francisco, Taipei, Seoul, Seattle, and Los Angeles developed suburban-based growth forms. Many of these cities have moved from an economic base dependent on physical manufactured trade, that was "energy-intensive," to become cities dependent on knowledge and information trade. These cities became service-sector cities, and their urban form reflects the difference in the economic system that lies at its base.

This is not to say that every place developed in the same manner. However, the argument here is that the transformation in the economic order altered, and continues to alter, the manner in which space is understood and used in this new urban system of cities. Leinberger and Lockwood (1986) put it this way: "The shift to a service and knowledge economy has greatly accelerated the restructuring metropolitan areas by creating the need for much more office space."

New agglomeration of space is possible in a knowledge environment that was not even conceivable in a product environment. As a result, the de-centered city has become the form of the Pacific city, much to the consternation of Euro-oriented city planners and public bureaucrats who have perpetuated public policies and have often implemented plans derived from the Euro-city form which, when applied in the Pacific city, were incompatible with the evolution of the spatial patterns derived from the new economic order of sprawling, de-centered urban forms. This is not to say that "centrality" is

not still important. What it means is that the development of diffused, multi-centered urban forms that now typifies the sprawling metropolis of the Pacific city is the new urban form and requires a different mind-set for policy makers and planners. The application and use of leading-edge technology in fact exerts its own requirements on urban form (Goddard and Hepworth, 1988), with information-based business tending to move to specially designated accommodations in suburban office parks and to refurbish new *intelligent buildings* in redeveloped existing central locations. This has required a shift from slowchanging urban form and fixed infrastructure, to one with pliable service functions that are capable of rapid modifications. It is becoming evident that the:

new technologies can provide the means to introduce flexible urban planning and to provide more efficient and socially beneficial services . . . and . . . as a result technological innovations which are applied to the running of cities and towns are leading to organizational as well as technical modifications to government operations. (Fox-Przeworski, 1989.)

All this is evident in the Pacific city, but the willingness and ability of metropolitan government to adapt to and to facilitate the operation of such processes is a key to the emergence of the new urban form in the Pacific city. It also influences whether or not a particular city will be able to be a significant player in this new urban order.

Internationalized Functions and Urban Form

The growth in trade, financial transactions and investment, and even migration among Pacific Rim nations suggests that the cities of the Pacific Rim are becoming more closely integrated, even though this degree of integration lags behind that in Europe (Richardson, 1989). However, while the Euro-city recognizes the need for international visitors and transactions, it is not internationally oriented per se, even though it has undergone the process of structural absorption of the production systems emerging from the new economic order.

The degree of interdependence that has developed is remarkable, given the vast differences in the Pacific Rim — for example, between the developed and the developing countries; the industrialized and the agricultural-based nations; and the North-South dimension in the Asia Pacific region all with their vast cultural differences. Within and between these groupings there are vast cultural and racial differences.

The question is "whether this increasing integration is having a noticeable urban impact and, if so, whether this aspect is pernicious" (Richardson, 1989).

The trans-internationalization of capital, by which there has been an increasing concentration of production in the hands of relatively few TNCs, and the new internationalization of labor, through which there has emerged a single global labor market for industrial labor and the pull of low-wage locations on highly mobile TNC branch operations, have had direct impacts on Pacific cities—especially on the growth of cities in developing countries and on economic restructuring in the

manufacturing sector of those cities (Douglas, 1989). Urban labor markets, the pattern of activities and flows, and urban form have been directly and indirectly impacted by these aspects of internationalization.

The concept of the *world city* proposed by Friedmann & Wolff (1982), with its national core region divided from its own hinterland, is a further product of this internationalization as linkages with an emerging system of world cities becomes stronger. Howells (1988) refers to such cities as the national champions with respect to foreign investment and advanced services. Their prominence and roles will likely become greater as the trend towards deregulation and liberalization of policies in trade of information and products increases.

Already the Pacific Rim has a number of such world cities— Los Angeles, Tokyo, Singapore, Hong Kong, and perhaps also San Francisco and Sydney and soon Seoul and Taipei. But Richardson (1987) points out that it is difficult to:

disaggregate the export base of, say, Los Angeles, international demand, Federal government demand (e.g. defence, aerospace) and interregional export demand . . . and . . . it is not self-evident that the international component is the largest, although it may be the most rapidly growing.

Much has been made of both the positive and negative aspects of this increasing internationalization of cities on urban structure, form, and life. For example, Richardson (1989) suggests that negative effects arise from:

bifurcation in the labor market, the development of 'citadels' and 'ghettos'; the widening fluctuations in metropolitan economies in response to the "hypermobility" of capital, exchange rates, and resource price changes; erosion of the metropolitan tax base as a result of competitive subsidies to attract and retain internationally mobile economic activities; a shift from investment in social overhead capital to economic overhead capital; a rise in CBD land and property values funded by the internationalization of Pacific Rim metropolitan economies and the unstable US currency.

However, we suggest the positive effects are just as evident. Increasingly, Pacific Rim cities are recognizing the differences in cultural and social needs by accommodating and undertaking the development of a wide variety of urban enclaves that meet cultural needs and celebrate cultural pluralism. The international dimension of Pacific cities is increasingly visually apparent in building design, signs in special urban sanctuaries, and urban recreation and entertainment, as well as the mix of populations. This cultural blending in the urban fabric of the Pacific city is accommodated in various ways, ranging from special districts of the city— like a China, Japan, Korea, or Mexico town— to greater varieties in housing types and styles. The Pacific city reflects increasingly the cultures of the Pacific in its urban form. Furthermore, increased international availability of capital has accelerated growth in the more productive Pacific Rim countries and provided great comparative advantages for the key major urban cities.

The big question is whether there will be a 'trickle-down effect' to benefit other urban areas. Similarly, it is a moot point as to what is transferable between cities across national boundaries, in terms of technological innovations improving the ability of major cities, such as Bangkok, to handle problems of waste management, waste disposal, housing, recycling, and so on.

Fuchs and Pernia (1987) draw attention to another crucial issue, that of Japan's emergence as the dominant international investor in the Pacific Rim and its growing international surplus. While they found no clear relationship between foreign capital flows and urban growth rates of patterns, they concluded that:

although the finding of an overall concentration of Japanese investments in metropolitan or core regions is compatible with world system dependency views, the broader set of findings supports the more traditional models of polarized growth, polarized reversal, and location theory. It appears that Japanese investment (and probably other foreign investment for that matter) per se do not exert a systematic and independent bias towards the metropolitan region. They seem to respect the level of economic development, pre-existing patterns of economic activity, population, and manufacturing; and the type and characteristics, of the industries involved, including investment objectives and market orientation.

The message from these findings is that it is the inherent dynamism of the major city in the Pacific Rim that is in itself a major factor in the degree to which the processes of internationalization diffuse through the urban system, and that it is the major cities that benefit most.

Interconnectivity and Communications

We have emphasized how the Pacific city is emerging as an information-dense and information-driven city. The interconnectivity among cities of the Pacific Rim is based, in part, on the strength of the global communications systems that pervades the Pacific, and the mere fact of a Pacific location for a city may be critical in determining its role in interactions with other cities. If it is a major port, then it is off to a head start.

For example, Richardson (1989) shows how the ambitious US\$4.8 billion 2020 Plan for the Ports of Los Angeles and Long Beach is underpinned by its success in capturing an increasing share of the rapid growth in Pacific Rim commodity trade. Rimmer (1989) shows how the air corridors of the Pacific (see Figure 1-2 and Table 1-4) have perpetuated the communications and transport structure of major cities which provides a nexus of air transport, telecommunication, and trade in the Pacific. The role and importance of the Pacific Rim in air transport is demonstrated by the fact that 10 of the top 30 international airports (measured by passenger volume) are on the Pacific Rim. Tourist trade is inexorably linked to these corridors, with gateway cities and regional hubs gaining significant advantages reflected in the massive investments in tourist-related facilities, such as international standard hotels, in major cities. Centrality with respect to the air corridors is paramount in this regard, which is evidenced by Honolulu's tourism-based growth.

Table 1-4

**Number of Daily Non-Stop Services by Major Region
From Major Asia Pacific Airports: 1970, 1980, 1990**

Airport	Asia									North America									Europe			Australia			Oceania			Latin America								
	Southeast			East			North			West			Central			East																				
	70	80	90	70	80	90	70	80	90	70	80	90	70	80	90	70	80	90	70	80	90	70	80	90	70	80	90	70	80	90	70	80	90	70	80	90
Tokyo	-	-	10	4	10	13	3	4	9	6	7	15	-	4	4	-	1	5	-	-	5	-	-	3	5	6	10	-	-	-	-	-	-	-	-	-
Los Angeles	-	-	-	-	-	3	-	2	8	2	10	9	3	3	2	3	-	-	3	4	5	-	-	2	-	-	-	9	21	33	-	-	-	-	-	-
Hong Kong	4	15	28	5	10	26	5	6	15	-	1	5	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Seoul	-	-	1	-	-	7	3	4	19	-	-	4	-	-	1	-	-	1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Singapore	-	26	26	-	2	7	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Taipei	7	-	5	10	7	17	-	13	18	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bangkok	2	7	13	3	6	12	-	-	4	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
San Francisco	-	-	-	-	1	3	1	2	5	5	9	5	-	2	3	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	3	1	-	-	-
Vancouver	-	-	-	-	-	2	-	-	1	12	19	39	-	2	1	-	-	-	-	-	1	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-
Osaka	-	-	1	-	6	4	5	4	4	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
Honolulu	1	1	-	-	-	-	4	9	11	-	1	2	-	-	-	-	-	-	-	-	-	-	1	2	1	-	2	-	-	-	-	-	-	-	-	-
Sydney	-	-	2	-	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	1	2	4	-	-	-	-	-	-	-	-	-
TOTAL	14	66	83	22	42	96	19	52	99	28	47	69	-	11	7	3	1	6	3	4	20	-	1	6	11	10	10	9	25	34	-	-	-	-	-	-

Established communication paths have also been important in migration within the Pacific Rim, and location is seen to be a key factor in the choice of destination cities. Richardson (1989) shows how it is no accident that 30 percent of legal international migrants to Los Angeles come from Asia and 50 percent from Latin America, predominantly Mexico. Similarly, Vancouver has strong links with Hong Kong. However, in the Pacific Rim, migration streams are generally one-way, from Asian to non-Asian countries (USA, Canada, and Australia).

ORGANIZATION OF THE BOOK

There are three levels of organization in this book. The easiest to see is the attempt we have made to include the major cities in the Pacific that represent the strongest group of partners from the point of view of trade, capital flows, and other interactions. We have included Sydney, in Australia, but not Melbourne; we have included Seattle, but not Portland; we have included Singapore, but not Manila. These decisions were made on the basis that the trading system among the cities included is very explicit in terms of their relationships with one another, and their dominance of the new information-based trading systems described earlier. We have not, for these and other reasons, included any Latin American cities or Indian sub-continent cities, even though we believe both their future and the future of the region will require their eventual integration into the emerging block trading systems. The logic of our inclusions and exclusions will be assailed by some and applauded by others. We recognize that being all-inclusive would have been valuable, but we would have had to have a much wider template for inclusion than we felt we could include and maintain a consistent theme.

On another, less complex level, we have divided the book between the Eastern Pacific (North America) and the Western Pacific (Asia/Australia). The internal organization in this portion of the work is only stylistic, and it is not meant to imply any particular relationship among the cities.

Finally, the book chapters are placed in a sequence that illustrates the themes we raise regarding the re-shaping of the city systems. Each city is a slightly different example of our underlying hypothesis that the Pacific Rim City has an urban form and economic base different in many dimensions from the Europe-Atlantic city. This concept is clearly presented in very different styles by our authors.

Any anthology, like this one, has to maintain the uncomfortable tension between the selected authors' choices and the central concept. We will leave it to the reader to determine whether the work holds together. We think it does.

Audience for the Book

This book is inspired and supported by a new Pacific Rim constituency of academics, government officials (both elected and employed), and real estate development consultants and experts. In 1988, an initial conference was held in Taipei consisting of individuals from these three segments

to explore mutual interests in promoting cross-disciplinary inquiry into the emerging land economic and urban form of Pacific Cities. From that initial conference, a new organization was formed— the Pacific Rim Council for Urban Development (PRCUD). The PRCUD's clear *raison d'être* is to foster better links among Pacific Nation scholars, government officials, and practitioners to build better cities and communities through mutual information exchange. It has worked. One of the manifestations of how well it is working is the emergence of this book as a communications tool for all three of the professional segments interested in Pacific Rim Cities.

This book is intended to cross over all of the information lines that now divide these three complimentary communities. For the scholars, this book provides a clear text description of the major Pacific Rim Cities for teaching courses on the Pacific. For public officials, it provides a summary of the current economic development, land use, and urban design approaches that each major city in the Pacific is undertaking and will undertake in the not too distant future. For the real estate/development professionals, the old and new are now merging. Real estate/developers can see new information on a very heterogeneous population base and new trade systems that will influence urban development.

The book is not intended to serve narrow Pacific Rim specialists' groups, but a larger group of professionals who work on issues related to the Pacific. It will provide an overview for many persons interested in the area of Pacific Rim urban development.

Major Themes

The major themes expressed in this book are related to the increasing ties between Pacific Rim cities that are almost extra-national-territorial. That is, the cities are beginning to develop deeper relationships with their 'sister trade cities.' Not only is the relationship different in the size of the trade between the cities but in the impact of this trading system on the urban form of these communities. This theme runs through the book and is the essential glue of the chapters.

The idea for the book was formulated by the authors just prior to the Western Regional Science Meetings in Santa Barbara, California, in 1989. The authors were solicited both prior and subsequent to that meeting. The concept outline and an initial first chapter were sent out to each author who indicated interest in the project. In a few instances, the original author could not complete the assignment and alternates were sought. However, most of the authors adhered to the major approach outlined. Some did not, or only partially. We edited the chapters and sent them back for further comment and review. They were edited for inclusion in this volume by the authors.

The Chapters

The book is composed of 19 chapters. In this first chapter, we have set forth the underlying concepts and issues the book covers. This is followed by six chapters dealing with North

American cities (Los Angeles, San Jose, San Diego, Seattle, Vancouver, and Honolulu). There are nine chapters on Asian cities (Tokyo, Osaka, Seoul, Taipei, Hong Kong, Singapore, Bangkok, Jakarta, and Tianjin). The final city chapter is on Sydney, Australia. The last chapter weaves together the chapters with the themes and develops some conclusions about the opportunities for cooperation and mutual urban development among these powerful cities within the Pacific Rim.

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CHAPTER 2

LOS ANGELES: IA-IA-LAND

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INTRODUCTION

Los Angeles reveals its many fascinations in countless ways. Perhaps no other metropolitan area is so large, so variegated, so raw, so shiny, and so vigorously youthful. It is a city that invites metaphors. It is a shiny red sports car with gleaming hubcaps, white trim, and an overbuilt engine bursting from beneath the hood. It is a greasy enchilada dripping with hot sauce. It is a paradise where ripe oranges exert their seductive pull on dry throats and thirsty eyes. It is a most improbable orchestra where each musician plays his own song, yet the result is a cacophonous splendor. It is a producer of fantasy in movies and real life. It is a continuous drama that plays itself out on the world stage with the Pacific Rim as its first balcony.

Many authors have labored to capture the essence of Los Angeles as an urban entity. Kevin Starr (1985, 1990) has produced a series of volumes evoking with rich detail the cultural history of the area. Soja and Scott (1986) edited a volume whose basic premise is that the human, physical, and economic geography of Los Angeles is the key to understanding cities of the twenty-first century. Gordon et al. (1989) argue that the evolving polycentric nature of the region is both inevitable and efficient, and that attempts by planners to stifle that process are both futile and wasteful. Scott (1986, 1984) focuses on shifting patterns of industrial location and traces their origins to a pervasive shift to new modes of production whereby capital and labor interact in an increasingly complex and fragmented manner. Nelson (1983) assesses the individual effects of climate, landscape, and society on the geography of the region. But Nelson's approach can only take us so far in understanding Los Angeles, because much of its very essence lies in the simultaneity of these diverse aspects. Soja (1986) addresses this problem head-on and grapples with the innate inadequacy of a "linear" language for expressing an idea as complex as Los Angeles. Ironically, Soja's own work belies the inadequacy of our written language as he casts one of his many evocative images:

[Los Angeles] is difficult to grasp persuasively in a temporal narrative, for it generates too many conflicting images, confounding historicization, always seeming to extend laterally instead of sequentially. At the same time, its spatiality challenges orthodox analysis and interpretation, for it too seems limitless and constantly in motion, never still enough to encompass. Looking at Los Angeles from the inside, one tends to see

only fragments and immediacies, fixed islands of myopic understanding generalized to represent the whole. To the more far-sighted outsider, the visible aggregate, the whole of Los Angeles, churns so confusingly that it induces little more than stereotype and illusion, if it is seen at all.

Soja also quotes from Borges's (1971) description of the Aleph,

The only place on earth where all places are —seen from every angle, each standing clear, without any confusion or blending . . . Really, what I want to do is impossible, for any listing of an endless series is doomed to be infinitesimal. In that single gigantic instant I saw millions of acts both delightful and awful; not one of them amazed me more than the fact that all of them occupied the same point in space, without overlapping or transparency.

The purpose of this chapter is to better understand Los Angeles in a Pacific Rim context as set forth in this book. The challenge is to illuminate one face of this multi-dimensional object without casting distorting shadows upon its other faces. We begin in the next two sections with an historical perspective of the ascendance of Los Angeles over San Francisco as the *de facto* North American capital of the Pacific Rim, as evidenced by flows of immigration, investment, information, tourism, financial capital, and trade. Following this, we examine the spatial structure of Los Angeles, which is at once both unique and instructive. While the downtown area has undergone dramatic visual changes in past decades, and while it remains the emblematic center of the region, downtown Los Angeles has become increasingly difficult to discern in the bubbling ferment of activities and spectacles that characterizes the rest of the region. As we shall see, empirical evidence from the most recent (1990) Census clearly reflects the dominance in population and employment growth on the periphery of the region. Moreover, the changes taking place in Southern California are not simply changes in scale. The richly diverse, internal spatial composition of the region is evolving rapidly.

The final substantive section of this chapter reviews some of the more important policy issues stemming from these dramatic changes. Los Angeles is highly fragmented geographically, ethnically, and economically. Not surprisingly, the political complexion of the region is correspondingly diffused. The confusion is further enhanced by constant change arising from the steady inflow of population and investment, so that by the time one has come to grips with reality, reality itself has changed. But then again, as Kevin Starr persuades us in his revealing cultural history *Inventing the Dream* (1985), the home of Disneyland, orange groves, and Hollywood achieved greatness by transcending reality. Indeed, the ceaseless flow of humanity into the City of Angels attests to the power of its self-fulfilling delusion of grandeur.

THE ASCENDANCE

Los Angeles is large by any standard. The City of Los Angeles contains over 3.4 million inhabitants, while the county is home to over 8.6 million people. The metropolitan region as a whole has over 13.7 million and is projected to grow to 18 million over the next 20 years. The

gross domestic product of the region ranks it the 11th largest "national" economy in the world, ahead of India and Australia (Leinberger and Lockwood, 1988). This sheer dominance of size and strength is relatively new to Los Angeles in historical terms. San Francisco preceded Los Angeles as the original focal point for urban activity on the US West coast. The relative positions of the two (see map, Figure 2-1) cities in the last century is described well by Reisner (1987, 54ff):

In 1848, the population of San Francisco was 800; three years later, 35,000 people lived there. In 1853, the population went past 50,000 and San Francisco became one of the twenty largest cities in the United States. By 1869, San Francisco possessed one of the busiest ports in the world, a huge fishing fleet, and the western terminus of the transcontinental railroad. It teemed with mansions, restaurants, hotels, theaters, and warehouses. In finance, it was the rival of New York; in culture, the rival of Boston; in spirit, it had no competitor.

Los Angeles, meanwhile, remained a torpid, suppurating, stunted little slum. It was too far from the gold fields to receive many fortune seekers on their way in, or to detach them from their fortunes on the way out. It sat forlornly in the middle of an arid coastal basin, lacking both a port and a railroad. . . . By the end of the Civil War, when San Francisco was the Babylon of the American frontier, Los Angeles was a filthy pueblo of 13,000, a beach for human flotsam washed across the continent on the blood tide of the war.

During the intervening decades the situation has changed. As shown in Figure 2-2, the population of Los Angeles superseded that of San Francisco early in this century, and proceeded to escalate unflinchingly while San Francisco's population has held relatively steady over the past several decades. As a result, San Francisco's municipal population is now scarcely a fifth of that of its giant neighbor to the south. In Figure 2-3, a similar picture emerges from a five-county comparison. For over half a century, the five-county area centered on Los Angeles has consistently claimed close to half of the population for the entire state. The five counties surrounding San Francisco, in contrast, have seen their share of the state's population dwindle steadily over the same period from 23 to 13 percent.

Population flows are themselves the basis for important economic and information flows that further enhance the region's stature. For example, tariff duties for the Los Angeles federal customs district have grown over the past decade to a point of absolute dominance with respect to Pacific Rim trade, and are now more than 50 percent larger than the corresponding revenues for San Francisco, Seattle, San Diego, Honolulu, Portland, and Anchorage combined. The Los Angeles five-county area now boasts over a quarter of a trillion dollars in total deposits in banks, credit unions, and savings & loan institutions, an increase of 136 percent from a decade earlier. Its share of all such deposits is now 53.1 percent and growing, while San Francisco's comparable share is 22.2 percent and declining. Los Angeles is also an emerging information center. Wheeler and Mitchelson (1991) find that only New York outranks Los Angeles among major US cities, based on the ratio of express messages sent to those received.

Figure 2-1

California State and the Los Angeles Metropolitan Area

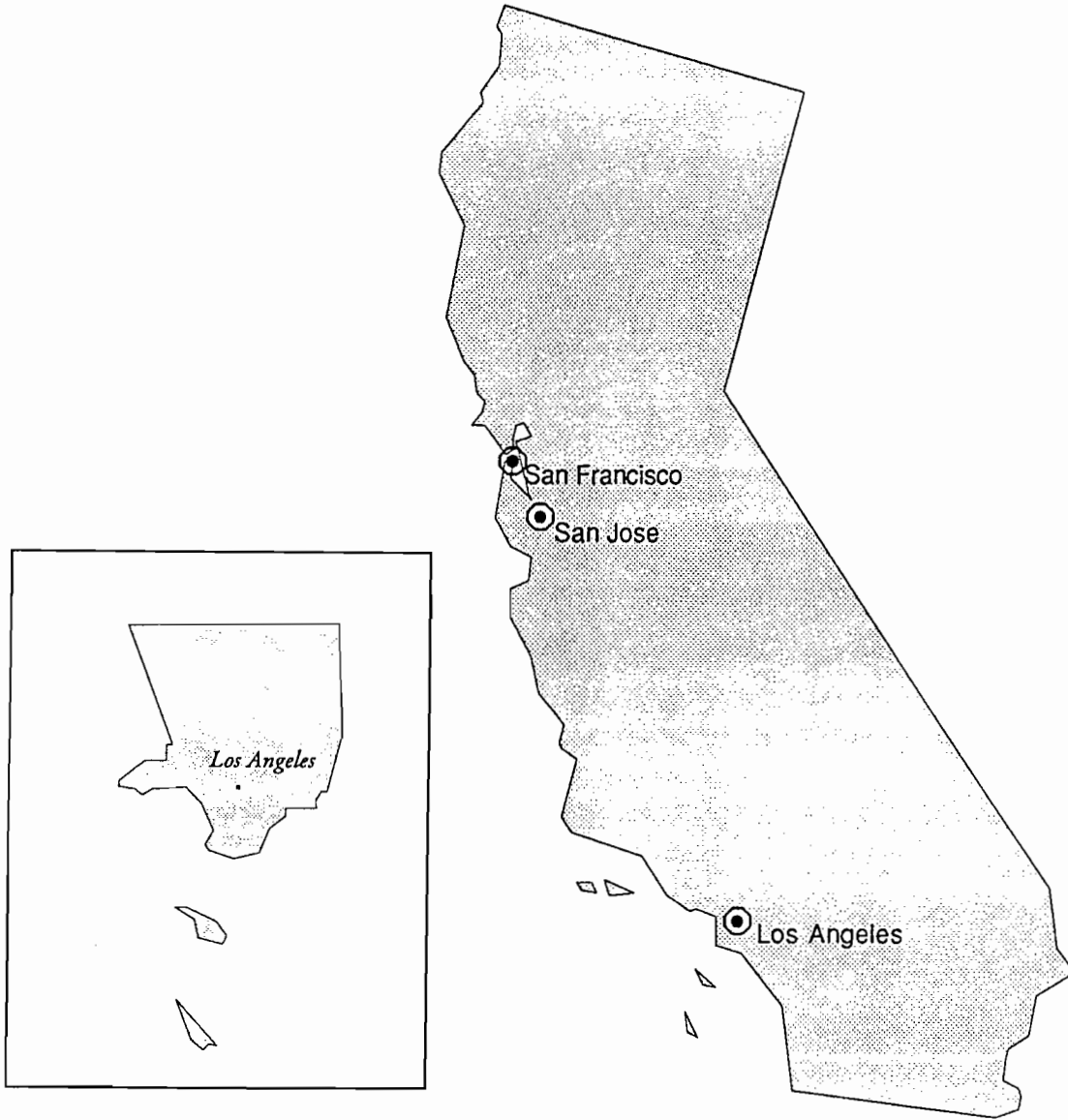
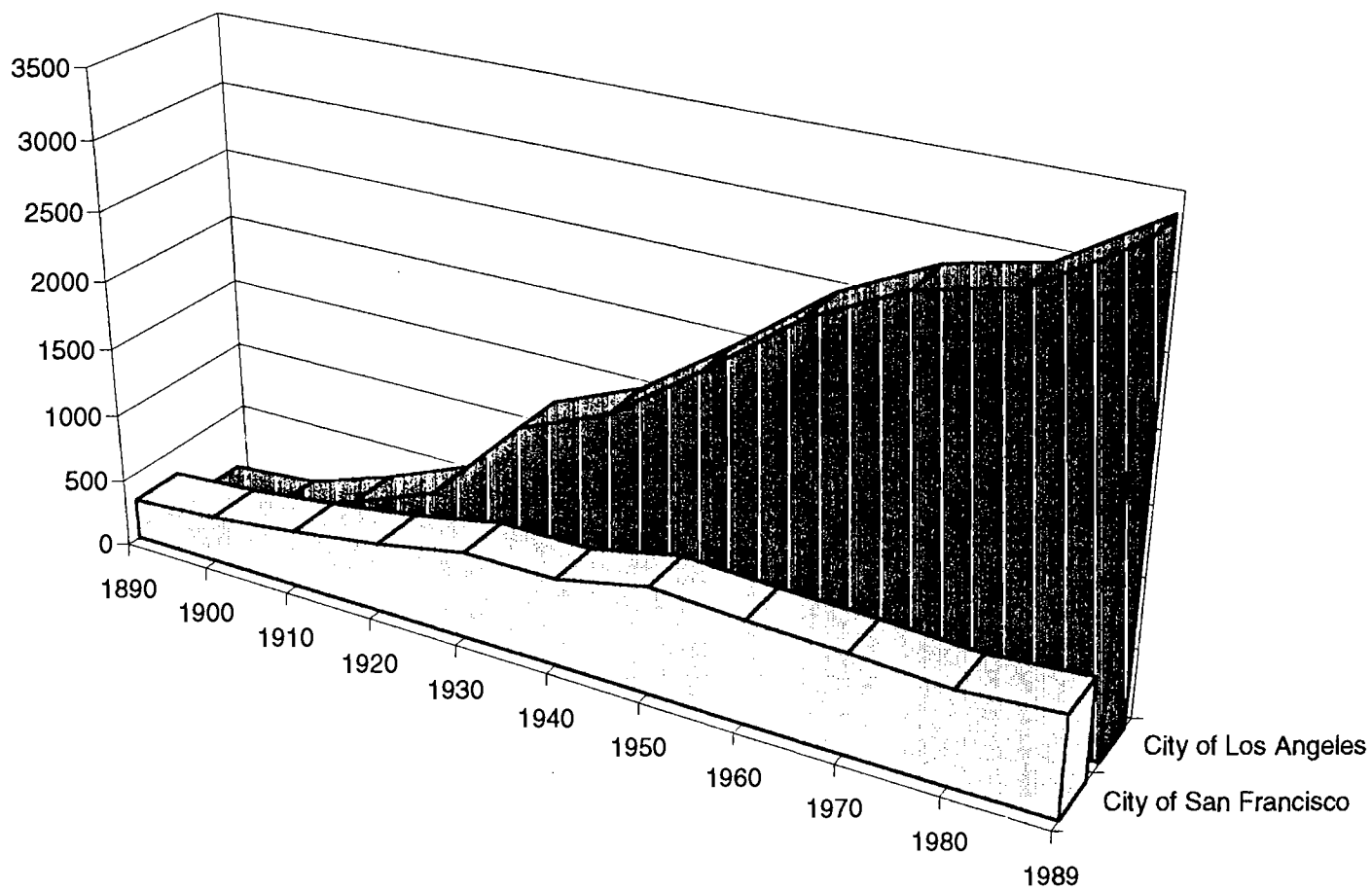


Figure 2-2

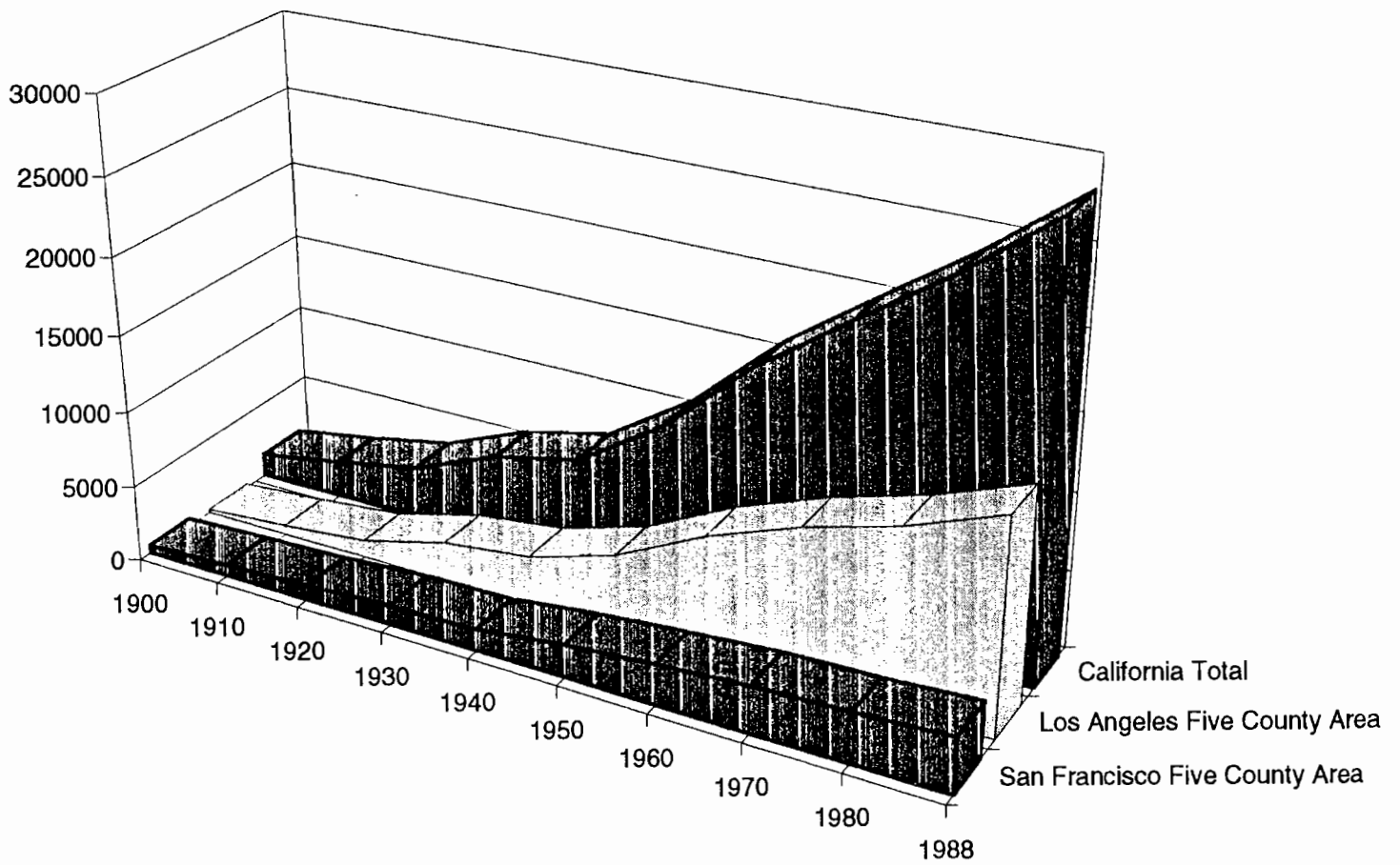
**Municipal Populations, in Thousands
Los Angeles vs. San Francisco, 1890-1989**



Source: Eureka Associates. U.S. Census Statistical Abstracts.

Figure 2-3

**Five-County Populations, in Thousands
Los Angeles and San Francisco, 1900-1988**



Source: Eureka Associates. U.S. Census Statistical Abstracts.

Los Angeles' perch on the Pacific Rim is clearly a major impetus behind much of this growth. According to a recent report by the US Commerce Department, Asian-owned businesses in Los Angeles County generated \$687 million in total receipts in 1987, putting it far ahead of New York, San Francisco, Honolulu, or any other American city. For example, total receipts in New York, which was ranked second by the study, came to only \$243 million, or 35 percent of the Los Angeles total (*Los Angeles Times*, August 2, 1991).

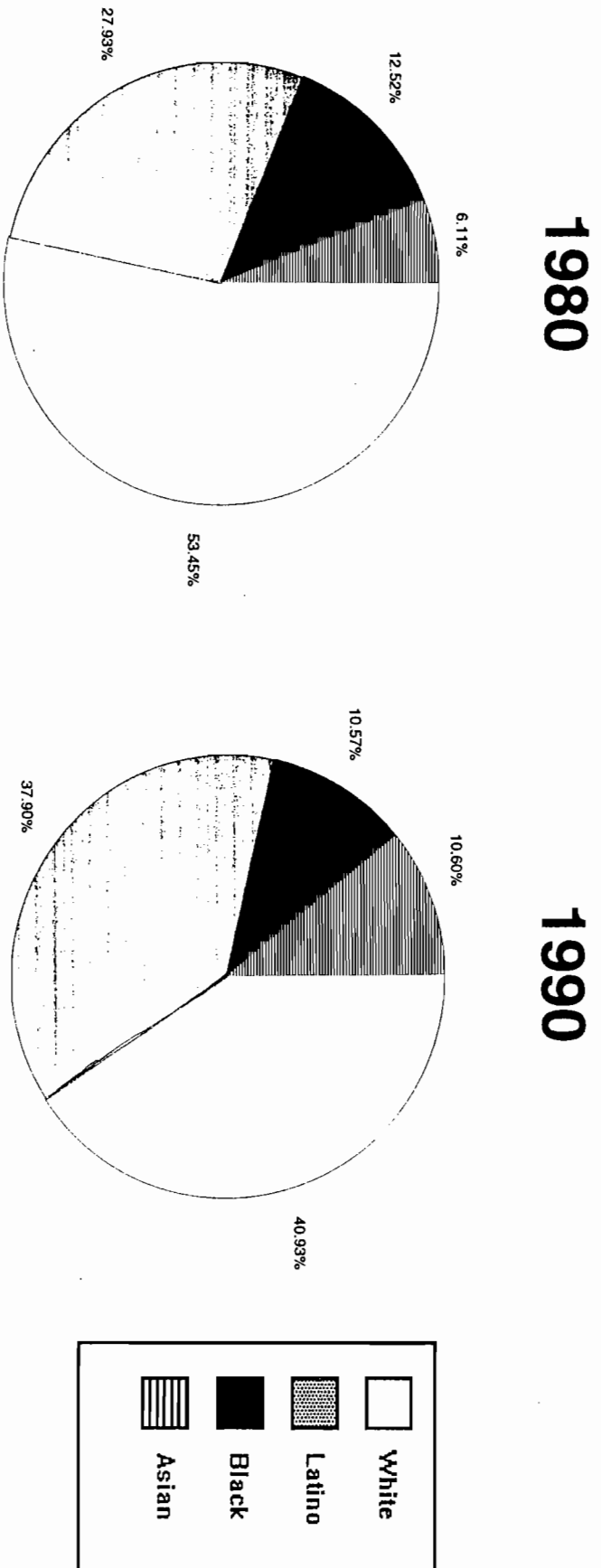
THE GANG'S ALL HERE

The same population, trade, investment, and information flows contributing to the economic ascendance of Los Angeles are also contributing to its increasingly cosmopolitan character. Population flows in particular are instrumental to one's understanding of its changing character. This cosmopolitan character was exhibited before the world in the Los Angeles civil disturbances of April and May 1992. As shown in Figure 2-4, the ethnic composition of Los Angeles County has changed dramatically over the past decade. The share of blacks in the population has held fairly steady at about 11 or 12 percent, while the share of whites has declined from over one half to just two-fifths. The decline in the white population share may be attributed largely to the increase in Hispanics, who are rapidly approaching a plurality of the County's population. The Asian population has had even higher growth rates still, but represents a smaller share— just exceeding 10 percent of the population total. In short, Los Angeles is unique among Pacific Rim cities in terms of sheer size and ethnic diversity.

This constantly shifting ethnic mix does contribute to racial tensions in the region. Different cultures dwell in close contact with each other and are compelled to interact competitively, as they each strive to secure a place in the California sun. Mueller and Espanshade (1986) discuss the growing resentment of African-Americans as the flood of immigrant workers, both legal and otherwise, places downward pressure on wages. Similarly, there is competition for limited access to quality education for one's children. Parents instinctively grasp the importance of peer-group effects in the classroom and cast a wary eye on any infusion of recent arrivals, particularly those who do not speak English.

Misunderstandings have erupted in violence. The 1992 Los Angeles riots showed graphically the mutual hostility and misunderstanding between Asian grocers and their predominantly black customers in South Central Los Angeles, an area notorious for violent crime. The Asians see themselves as hardworking disciplined families besieged by a lazy, drug-crazed, violent, gang-infested community. The community, in turn, perceives the immigrant grocers as exploitive bigoted foreigners who presume that anyone who enters their store is a potential thief or worse. Profound linguistic differences act as further barriers to mutual understanding, although community-based organizations have arisen spontaneously in response to the problem.

Figure 2-4
Ethnic Composition of Los Angeles County



Source: *Los Angeles Times*, May 6, 1991.

Violence As Life

Gang-related violence is one of Los Angeles' more dubious distinctions. While many gangs have strong ethnic or racial identities, much of the ensuing bloodshed results from gang rivalry within, rather than between, ethnic groups. Asian gangs differ in some respects from their black or Latino counterparts, although in all cases one senses that the proliferation of gangs is a misguided response on the part of the disenfranchised to secure for themselves a sense of belonging and pride. Black or Latino gang battles stem largely from neighborhood territorial disputes exacerbated by a voluminous drug trade. These territorial disputes are marked by frequent and sickening occurrences of indiscriminate drive-by shootings, where innocent children are murdered in front of their homes.

In contrast, newspaper reports refer more often to crimes of extortion in the case of Asian gangs, where the victims are typically carefully targeted, wealthier members of their own ethnic group. The presence of Asian gangs in the Los Angeles area attests to the diversity of Asian immigrants here. In contrast to their wealthier counterparts from Taiwan, Korea, Hong Kong, or Japan, Asian gang members are often refugees from Vietnam, Cambodia, or other war torn environments. Here again, one perceives that much of the gang activity ultimately springs from a profound sense of disenfranchisement and disillusionment, as the prosperity and comfort of their adopted homeland seems to systematically elude them.

Much of the violence perpetuated by gangs, both Asian and otherwise, seems to be self-contained in the sense that it occurs within certain vague but strongly held boundaries. Indeed, a fundamental aspect of survival in Los Angeles is to learn where it is safe to go. Only the naive or the uninitiated wander about without reference to these territorial imperatives. Inevitably, this fosters the perception that crime is tolerated to a certain extent, provided it remains within certain neighborhoods.

Tourism

Tourism is another population flow that contributes heavily to the region's character and economy. The Los Angeles area is famous the world over as the home of Disneyland, perpetual sunshine, Hollywood, Universal Studios, surfer-infested beaches, Knotts' Berry Farm, the Dodgers, the Hollywood Bowl, the Academy Awards, Beverly Hills, and a myriad other attractions that brought over six million visitors to Los Angeles County in January 1991 (*Los Angeles Times*, May 1991). As Soja (1986) wryly observes:

With exquisite irony, contemporary Los Angeles has [itself] come to resemble more than ever before a gigantic agglomeration of theme parks, a region comprised of Disneyworlds divided into showcases of global cultures and mimetic American landscapes, all-embracing shopping malls and main streets, corporation-sponsored magic kingdoms, high-technology-based experimental prototype communities of tomorrow, attractively packaged places for rest and recreation, all cleverly hiding the buzzing workstations and labor processes which help to keep it together.

Exotic Cultures

In part, Soja is referring to the fantastic array of exotic cultures on display here. The region has either the largest or second-largest concentrations of Japanese in the world outside of Japan, Taiwanese outside of Taiwan, Koreans outside of Korea, Filipinos outside of the Philippines, Armenians outside of Armenia, Thais outside of Thailand, Vietnamese outside of Vietnam, Mexicans outside of Mexico, and likewise for several other Latin American countries. The distinctiveness of these ethnic enclaves are reinforced by common geography, culture, language, and race. By any reasonable measure, Los Angeles is the human resource capital of the Pacific Rim.

However, the impact of Asian population flows is not strictly in accordance with their magnitude. There are marked differences in the Latino and Asian communities, and these differences color the nature of the impacts wrought by their growth. On the whole, the Latino immigrant population is decidedly less educated and less wealthy than its Asian counterpart. Geography accounts for much of this difference through the self-selection process leading to migration. Immigrants (both legal and illegal) from Mexico and Latin America are typically economic refugees who are fleeing lives of bleak poverty. The southern border of the United States is notoriously porous, with no ocean barrier to prevent determined would-be migrants from entering. In contrast, the self-selection process of immigrants from Taiwan and Hong Kong favors the educated and moneyed elite. Thus, even if the countries from which they are drawn were similar in terms of economic development, the two distinct groups of immigrants would be quite different as a result of the very different self-selection processes at work. But, in fact, the source countries are quite different. As a result, Los Angeles tends to receive the economic elite from more developed countries, and the economically impoverished from the poorer Latin American nations. A significant implication of this trend is a sharpening economic polarity in Southern California reinforced by fairly strong ethnic underpinnings.

TRADE AND FOREIGN INVESTMENT

Trade and investment flows across the Pacific are also burgeoning, and the combined adjacent Ports of Los Angeles and Long Beach constitute the world's largest port, as measured in through-put tonnage or value of goods shipped. Imports exceed exports, and 60 percent of these imports are destined for the Southern California area, with the remainder being transported overland by rail or truck to other destinations in the state and nation. Trade flows through West coast seaports are projected to triple over the 1985-2020 period, and ports are moving aggressively to expand their operations to meet this projected demand. The Ports of Los Angeles and of Long Beach have embarked upon an ambitious 2020 Plan to more than double through-put capacity of the combined ports. This in turn has major implications for the surrounding urban fabric, as transportation corridors are constructed for facilitating the movement of goods to and from the harbor

to rail links in downtown Los Angeles. More importantly, the burgeoning overseas trade necessitates increasing contact of all forms with our Asian counterparts.

Investment from overseas, while difficult to document fully, also plays a significant role in the shaping of Los Angeles. The direct impact is evidenced by real estate acquisitions, most notably by the Japanese. The more high-profile investments are commercial office buildings in downtown Los Angeles, including Shuwa Investments Corporation's acquisition of the well-known twin-towered Arco complex for a staggering \$620 million. Other prominent Japanese investors in US real estate are Mitsui Corporation, Sumitomo Life Insurance, Normura Real Estate, and Dai-Ichi Life Insurance (Furlong and Yoshigara, 1987). Los Angeles is the number one target for Japanese real estate investments in the United States. During 1988 and 1989, Japanese invested over \$6.6 billion in real estate in the Los Angeles metropolitan area, comprising 21 percent of all such investments in the United States (Kenneth Leventhal & Co., 1990). In contrast, San Francisco, which consistently ranks among the top ten US locations for Japanese real estate investments, attracted only \$1.1 billion during the same years, or about one-sixth of the Los Angeles total.

Foreign acquisition of domestic real estate does not necessarily transform the character of an urban area. The Arco twin towers complex may be symbolic of the expanding Japanese presence in Los Angeles, but it looks and functions now much as it did prior to its sale. In many ways this trend is more symptomatic of a changing orientation in the flow of activity within the Pacific region. New office, hotel, residential, or industrial developments funded by overseas sources often target Asian clientele, and so real estate developments represent a channel through which further internationalization occurs. The combined foreign exchange reserves of Japan and Taiwan, representing cumulative trade surpluses for these nations, now approach \$200 billion. Trade surpluses such as these may be drawn geographically from trade with the United States as a whole, but their reinvestment into the domestic economy is focused in specific local submarkets. Thus, foreign trade patterns can have profound redistributive effects within the United States, and this has clearly been a factor in shaping the evolving character of the Los Angeles urban area.

DOWNTOWN LOS ANGELES: IMPORTANCE OR IMPOTENCE?

Americans are captivated and excited by a towering downtown, and Angelenos are no exception to this rule. Downtowns are symbolic of the American urge to call attention to its own prowess, but in Los Angeles, a city known for its sprawl outward rather than its surge upward, this urge has long been frustrated. It was not until the redevelopment of the Bunker Hill district by the Los Angeles Redevelopment Agency in the 1950s and 60s that Angelenos were treated to the spectacle of a "real" downtown, now boasting over 137 million square feet of office space (*Los Angeles Times*, May 17, 1991). Subsequent downtown developments include the Museum of Contemporary Art, a Convention Center, and fixed rail rapid transit fixtures, all trumpeted loudly by the *Los*

Angeles Times as important evidence that Los Angeles has arrived. In truth, there is both more and less to downtown Los Angeles than meets the eye, with a complex intermingling at close quarters of highly variegated activities. As shown in Figure 2-5, within the downtown area one finds an unlikely juxtapositioning of corporate financial and Latino central business districts, a garment district, skid row district, Chinatown, Little Tokyo, produce district, and warehouse district.

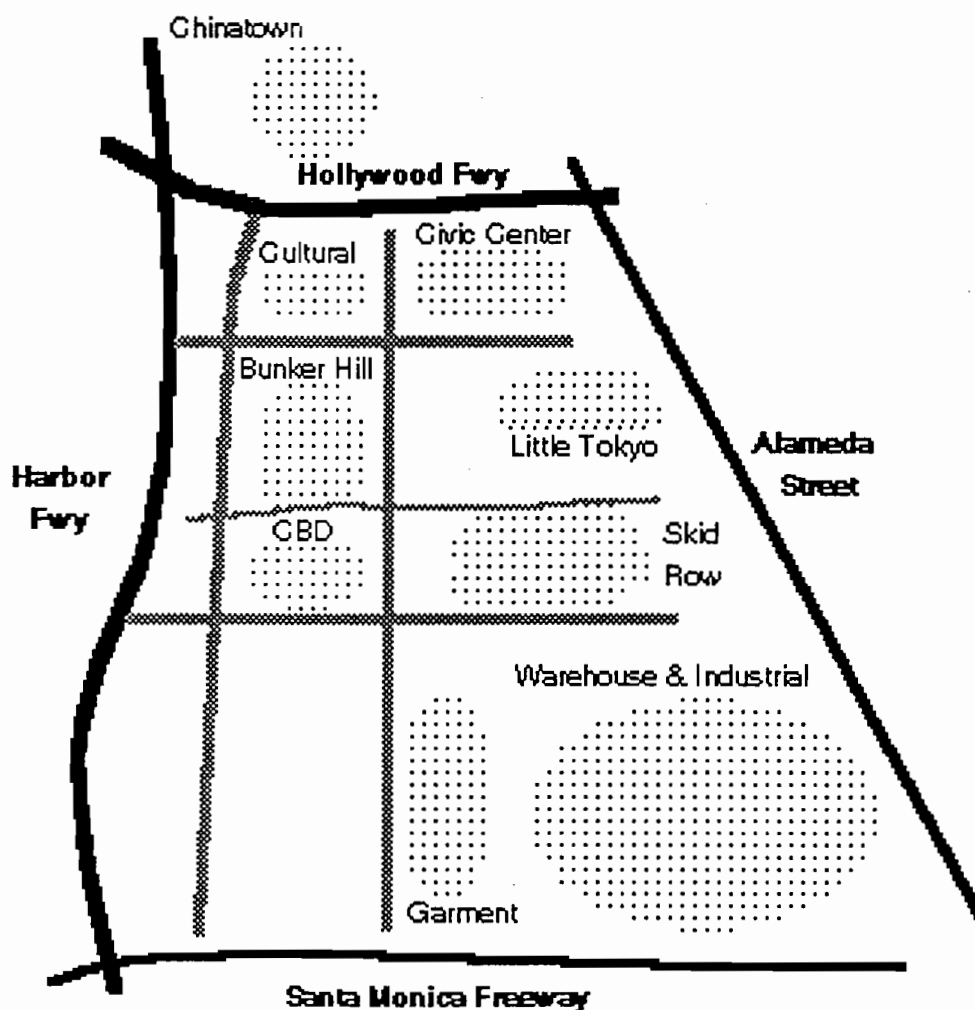
The *nouveau arrive* Bunker Hill district is perched majestically above the fray, with the city's prime cultural and civic monuments—including the Museum of Contemporary Art, the Times Mirror Building, the Dorothy Chandler Music Pavilion, City Hall, and Little Tokyo—all safely tucked away in its backyard. A vacuum was created along the Broadway corridor when the corporate financial district relocated to its shiny new house upon the hill, but this was quickly filled by a vibrant Latino population that celebrates life in a daily ritual of retail commerce. This same Latino presence enlivens the Farmers' Market and Garment District, the latter being the focus of Alan Scott's (1984) detailed analysis of the complex geographic manifestations of contemporary industrial practices in the garment industry. The southwest corner of the map is a vast industrial warehousing district, with a smaller human warehousing district known as skid row just to the north.

The Asian presence in this landscape is difficult to read. Little Tokyo does have its concentration of retired Japanese residents and noodle shops, and the New Otani Hotel does attract its share of overseas businessmen, but the area is marked by an artificial quality that makes it difficult to take seriously. Chinatown, just to the north, displays a grittier presence, but cannot claim to be the true focal point of the Chinese community that is largely ensconced in the region's suburbs. And as was discussed earlier, Japanese investment in high-profile buildings downtown during the late 1980s does not perceptibly alter the pattern of daily life in the district. The Asian influence over development patterns in the metropolitan region is more likely to be transmitted through an investor's fax transmissions from Taipei or Tokyo to his son's or subordinate's home in South Pasadena or Palos Verdes.

EMPLOYMENT AND POPULATION GROWTH

The importance of downtown Los Angeles within the region is further punctured by a review of employment and population growth trends. Figure 2-6 provides a geographic breakdown of average per annum employment growth rates in four key sectors of the economy for the period 1982 to 1987. The trend is clear. While still growing in most sectors in absolute terms, employment levels in the central city are steadily shrinking relative to the region as a whole, and relative to the outer counties (excluding Los Angeles County) in particular. In all cases the rise of the service sector is in sharp contrast to the sluggish growth of the manufacturing sector. Leinberger and Lockwood (1986) identify four reasons for the centrifugal shift in employment: (i) technological innovations in transport and communications, (ii) lower land prices outside the central city, (iii) the rise of a service sector which is less noxious to outer communities, and (iv) proximity to desirable labor

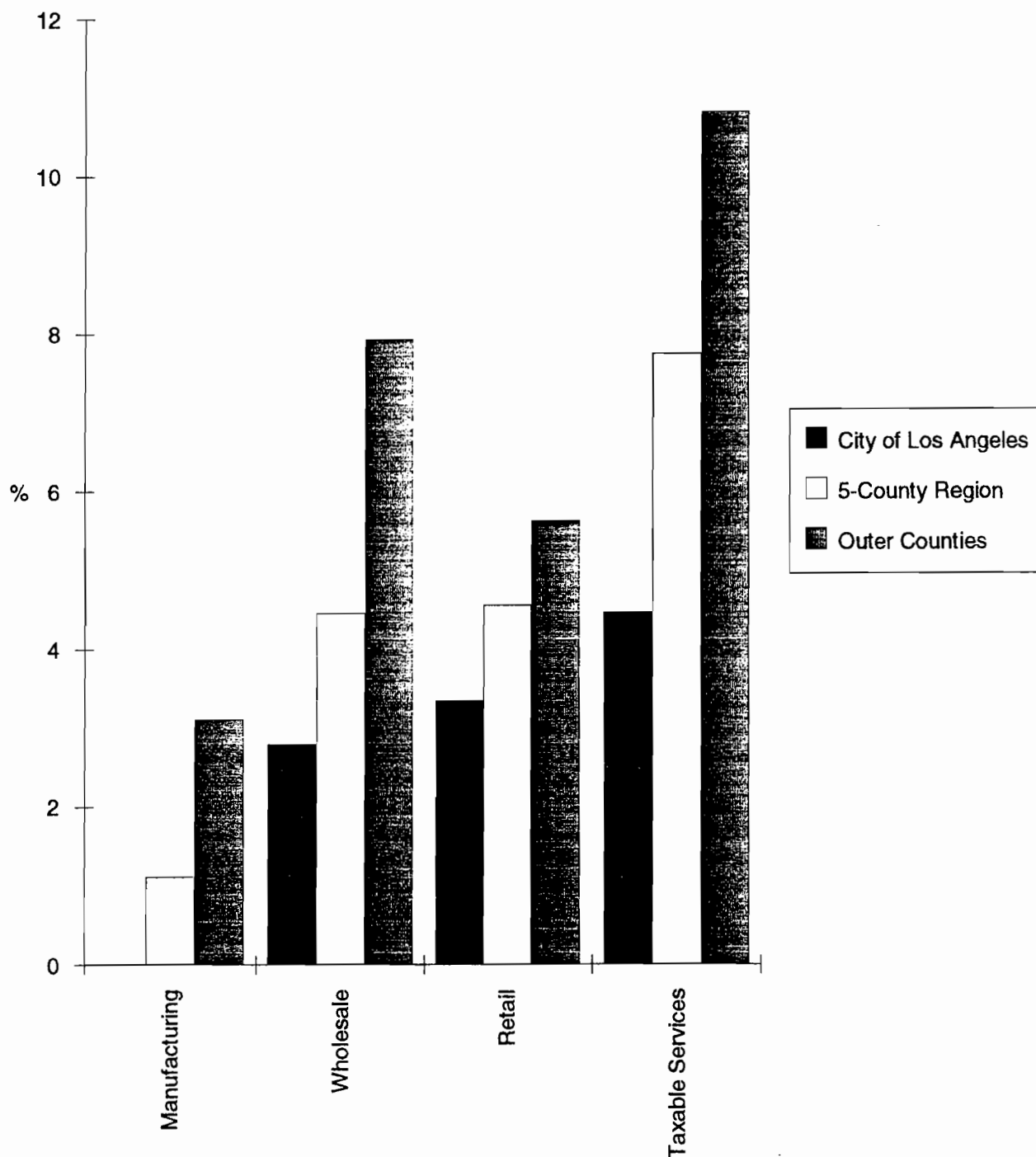
Figure 2-5
Downtown Districts



Source: Adapted from an Image Map of Downtown Los Angeles by Professor Tridib Banerjee of the School of Urban and Regional Planning at the University of Southern California.

Figure 2-6

Average Per Annum Growth Rates in Employment, 1982-1987



Source: Professor Peter Gordon, University of Southern California.
1982 and 1987 Economic Censuses, U.S. Department of Commerce, 1990.

pools and consumer outlets. This latter point is especially important and echoes Mills' (1970) conclusion, based on the analysis of census data over several decades for a cross-section of metropolitan areas, that it is employment growth that persistently follows population growth to the urban periphery.

In the case of Los Angeles, it is abundantly clear that the employment growth trends discussed above are consistent with prevailing population trends. Figure 2-7 shows that population growth in Riverside and San Bernardino Counties has far outpaced growth in the more established population centers within the region. The highest growth rates within the region have been concentrated entirely within the dry dusty "Inland Empire" to the east, where entire communities have been assembled at dizzying speeds for much of the past decade. Surprisingly, many of the areas traditionally associated with Los Angeles, particularly those along the Malibu and Santa Monica coastlines, have actually experienced absolute declines in their population, reflecting a demographic trend in those areas towards smaller household sizes. Growth in the Inland Empire reflects the migration of traditional family-oriented households in search of more affordable housing. This phenomenon is not unique to Los Angeles; San Francisco's municipal population has experienced even more precipitous declines in its share of the five-county population over the past century.

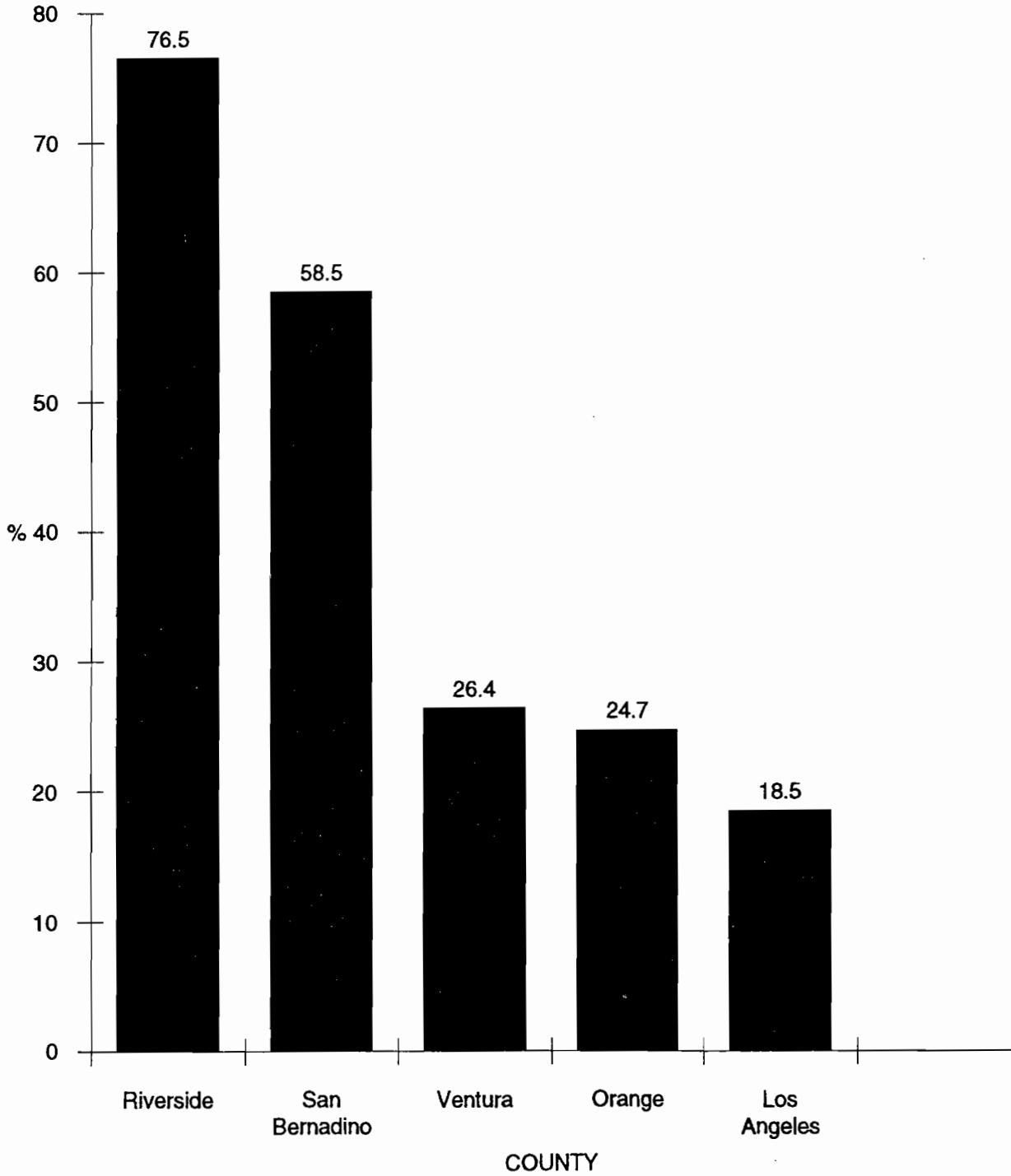
One must conclude therefore that the impressive evidence of growth in downtown Los Angeles belies a persistent decline in its relative importance within the region as a whole. It is only the sprawling, diversified, impossibly complex bulk of Greater Los Angeles that captures the full majesty of a Southern Californian urban experience. Of special interest is the manner in which this vastness manifests itself geographically. In what way do these "millions of acts both delightful and awful" spill across the soil? What sequence of experiences does one encounter while traversing the region?

THE SPRAWLING MEGALOPOLIS

Los Angeles is widely and justifiably viewed as the epitome of a sprawling megalopolis, and indeed the geographic breadth and range of the urbanized area is breathtaking. One can drive for almost two hundred miles from either Santa Barbara in the north to San Diego in the south, or from Malibu in the west to Palm Springs in the east, with only the occasional interlude of undeveloped tracts of land. Economic activities are almost as dispersed within the region as is population, with Gordon, Kumar, and Richardson (1989) identifying 19 distinct subcenters of economic activity within the five-county area, and only 3 percent of the region's employment is found within the Central Business District of Los Angeles.

Figure 2-7

Percentage Population Growth by County, 1980-1990



Source: City of Los Angeles Planning Department, 1990.

Enclaves Within Freeway Networks

In many ways the sprawling diversity of Los Angeles represents both the best and the worst of its quintessential American character, as it offers both chaos and freedom. While Los Angeles is famous for its traffic congestion and freeways, the levels one finds here are no worse than what one finds in other urbanized areas of over ten million people. Different geographic enclaves within the region have highly distinctive characters, and this is likely the primary determinant of residential choice for Angelenos. That is, the residential location decisions of households in Southern California are based primarily upon ethnic or economic considerations, and only secondarily upon location considerations in a more explicitly geographic sense (Giuliano, 1990). Ease of mobility provides the necessary degree of freedom which permits household residential and employment location decisions to be made quite independently of each other. It is this freewheeling mobility that gives Angelenos a degree of autonomy that is in a very real sense the legacy of the American Frontier.

The contrast with Tokyo is instructive. In the Tokyo metropolitan area, about 11.6 million people reside on 828 square miles of land (Furlong and Yoshihara, 1987), and so the density is sufficient to support an extensive network of fixed-rail transport. While the rail system in Tokyo is highly efficient and grants one a great deal of mobility, one cannot help but feel that it is a highly regulated mobility. A fixed-rail system that turns on at precisely 5:20 am and off again at 12:55 am and that runs in meticulous accord with an established schedule is somehow more in keeping with a society whose economic and political order is emphatically hierarchical. In Tokyo, there lurks the unstated realization that "The Center" may at any time shut the system down, and with it the mobility of the populace at large.

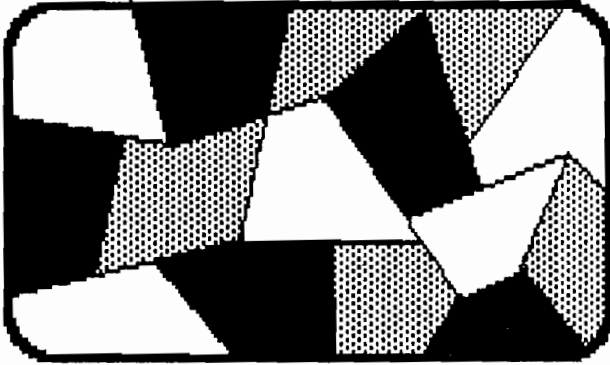
The urban spatial structure of Los Angeles differs in another fundamental respect from that of its Asian counterparts. As illustrated in Figure 2-8, diversity in Los Angeles is found between neighborhoods rather than within them. When comparing neighborhoods, Los Angeles takes on the form of a dizzying patchwork quilt, with an abundance of variety. Each patch of the Southern California quilt is virtually a self-contained reality, or what Soja refers to in the aggregate as "fixed islands of myopic understanding." In contrast, diversity in a city like Taipei arises within, rather than between, neighborhoods. Taipei is like sand on the beach. Viewed from high above it all looks the same, but upon closer examination one finds that even the smallest pinch of sand offers a surprising range of texture and color. No matter where one stands in Taipei, chances are high that one is within easy walking distance of a hotel, an office, a residence, and innumerable retail outlets.

These considerations of spatial scale are quite important from an urban planning perspective, particularly with regards to the nexus between transportation and land use. To take an extreme example, consider the case of Taipei caricatured even further, to the point of being a perfectly fine mixture. Suppose that within a given distance of any point, one could find an instance of any and all land uses. In this event there would be no need for a transportation system, because everything

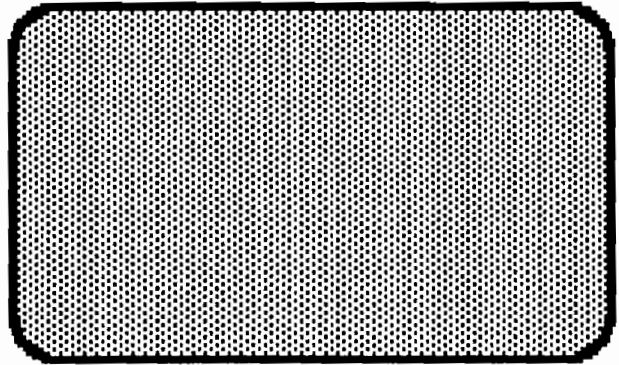
Figure 2-8

Geographic Diversity: Los Angeles vs. Taipei

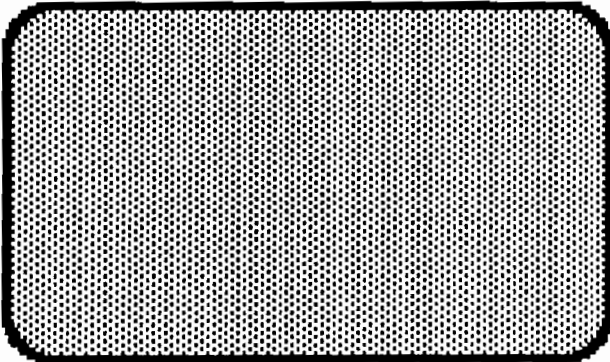
Los Angeles — Diversity between neighborhoods



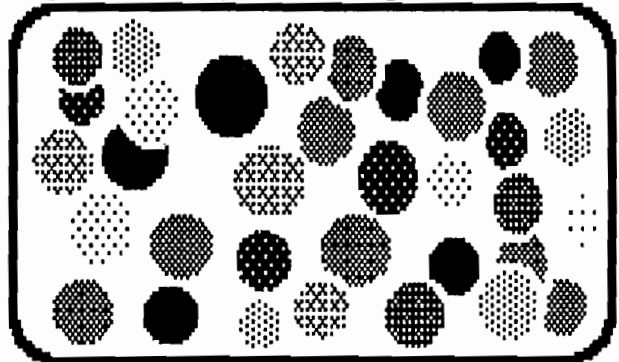
Taipei — Homogeneity between neighborhoods



Los Angeles — Homogeneity between neighborhoods



Taipei — Diversity between neighborhoods



one might seek is virtually within reach. In contrast, an extreme case of Los Angeles would require extensive travel to engage in an arbitrary set of activities. Intimately related to this issue is the spatial indivisibility of activities. An additional practical implication of these scale effects concerns statistical sampling and analysis. To take a representative sample of households or land uses in Taipei, one need only step outside one's door and begin sampling at random. The same process in a Los Angeles world would obviously lead to gross sample-selection bias.

POLICY DILEMMAS

The range of policy issues in Los Angeles that are impacted by its status as a pre-eminent Pacific Rim entrepot are as varied and complex as the city itself. The manner in which population, trade, financial, and information flows are infused into the daily melange of human existence is difficult to trace, and even more difficult to analyze in terms of their myriad policy implications. A fragmented political structure is likely to further exacerbate the region's inability to cope with changes wrought by strengthening Pacific Rim ties.

Growth Controls and Housing Affordability

Perhaps nowhere is this fragmentation more in evidence than in the related issues of growth controls and housing affordability. There are over 160 municipalities in the region, with populations ranging from several thousand to over three million, each with its own set of land use controls. Even within the City of Los Angeles, there are thirty-five distinct community planning districts, each of which propagates its own recommendations for land uses within their respective neighborhoods. And within many municipalities, a separate set of land use regulations applies to formally established community redevelopment areas. The result of this multiplicity of jurisdictions is inevitably a lack of coherency regarding land use policies throughout the region. Under the current situation, there is very little reason to hope that regional planning goals will be realized through the separate uncoordinated actions of individual municipal jurisdictions.

A case in point concerns the issue of housing affordability. While housing in Los Angeles is not overpriced in comparison to some Pacific Rim cities, it is very expensive relative to historical norms and to other major markets in North America. There is little disagreement over what must happen over the long run if decent housing is to remain within the reach of the typical household—the supply of housing must increase to match the growing demand caused by new family formations, in-migration from elsewhere in the United States, and in-migration from abroad. The most important impediment to this solution is the maze of land use regulations that in aggregate severely restricts the region's capacity to absorb additional housing units. Physically or technically, there is little to prevent housing densities from rising in response to growing demand, but the political barriers seem virtually unassailable.

Instead of acting to increase the supply of housing in the region in response to growing demand, many jurisdictions have enacted growth controls to further limit allowable land use densities. This approach appeals to those who seek to preserve the "quality of life" or the lifestyle associated with established neighborhoods that are threatened by change. Whatever the rhetoric behind them, the consequence of growth controls is that housing becomes relatively scarcer, and so the market equilibrium price of housing rises. The equity implications of growth controls are quite stark: the "haves" benefit at the expense of the "have-nots." In particular, renters and would-be owners face ever-increasing barriers to entry in the housing market, while current owners not only realize the capital gains accruing from increased relative scarcity of their assets, they also continue to enjoy the quality of life to which they have become accustomed. This pattern of events is clearly in evidence in Los Angeles, where the population density has actually declined in many of the more desirable and established communities nearer to Los Angeles proper. Increased housing prices and restricted supply leave many households little alternative but to locate in the Inland Empire further to the east. As a result, freeways linking San Bernardino and Riverside Counties to employment opportunities in Orange and Los Angeles Counties are choked with traffic, giving rise to vague but impassioned calls for jobs-housing balance.

Pacific Rim population flows are inextricably linked to these issues. It is the fear of change that motivates much of the movement towards growth controls. Rightly or wrongly, but certainly understandably, existing residents fear the uncertainty engendered by a rapidly changing neighborhood environment. Heikkila (1989) refers to the impacts of cultural alienation, where people who have lived in their homes for decades suddenly find themselves in a linguistic, ethnic, racial, or cultural minority. They have not changed, but the world around them has. Small houses on large lots are relentlessly replaced by huge houses on large lots. The people who move into these huge houses are wealthy, their children often excel in school, and they speak exotic languages. They are alien. They are the personification of change and, as such, are often resisted even while regarded with an almost mythical fascination (Krieger, 1986).

These deep-rooted fears of cultural alienation are not always conducive to rational policy discussions. Nor are these fears considered an appropriate topic for polite company. The discussion therefore revolves around euphemisms, such as the impact of growth on infrastructure and other local government services, with traffic congestion being the primary focus. These issues are indeed also legitimate areas of concern — changing land uses do result in changing trip patterns and changing patterns of use of existing transportation infrastructure. However, this sanitized presentation of the issues ultimately fails to address people's underlying fears of cultural alienation.

Urban Services: New Filters, Club Membership

The Los Angeles area is arguably the best living model of the pattern of urban service delivery described in the classic paper by Tiebout (1956). Urban services tend to be consumed jointly at similar levels within well-defined geographic areas, and thus may be thought of as local public goods in the strict economic sense of the term. By definition, individuals within a local area cannot adjust their levels of consumption of a local public good to suit their own tastes or budget constraints. Instead, everyone residing within a prescribed area experiences the same quality and quantity of local public good, whether it be schools, roads, sewers, public safety, health care, parks, or other environmental amenities. Thus, in the phrase made famous by Tiebout, people "vote with their feet" in order to adjust the bundle of services and taxes which best suits their circumstances. He showed that under certain well-defined conditions, the distribution of services arising from this process will be efficient in the strict economic sense of the word. That is, no individuals could be made better off without resorting to a redistribution of economic welfare. The Tiebout model has been explored in depth and considerably enhanced under the general rubric of club theory, as described by Cornis and Sandler (1986).

The Los Angeles metropolitan area, with its hundreds of local government jurisdictions, is the epitome of a Tiebout world. Residential location decisions are akin to joining a club. Club membership fees are extracted in part through property taxes and service fees, but a hefty premium must also be paid in residential land prices to join the more exclusive clubs. And, of course, club membership can be a crucial factor in determining one's social status. Recognizing this, many wealthy Asians are quick to seek access to the right clubs, for Asians are no strangers to exclusivity in social settings. What is unusual is the extent to which club membership is defined predominantly through residential location. This fact makes even the most exclusive clubs relatively accessible, provided one has sufficient wealth. One cannot be legally excluded from club membership solely on the basis of one's Asian origins or inability to speak fluent English. In this light, growth controls can be seen as an alternative device for filtering applicants. No one who is willing and able to pay membership dues can be legally excluded from the club, but land use regulations can be administered in such a way as to send out clear signals to potential applicants about the desirable attributes for preserving the club's quality of life. In light of all these considerations, the traditional economic residential location model seems mildly irrelevant at best.

Finally, it is important to understand that a well-functioning, economically viable region helps to preserve the existing distribution of wealth. As noted above, a Tiebout world is efficient in the sense that no further improvements in welfare can be effected without recourse to redistribution. Poorer elements are denied the services enjoyed by members of wealthier clubs through the inability to sustain membership fees. However, they are encouraged to work and save towards eventual club membership through gainful employment as waiters or hedge-trimmers on the

clubhouse grounds. To a large extent, this is nothing new; it has always been important to reside on the right side of the tracks. What is unusual is the abundant diversity of clubs to which one might belong. There are more degrees of freedom in the sequence of steps one might take to reach a targeted social address. Ultimately, the flourishing diversity of Tiebout clubs within the Los Angeles area works to the advantage of most, as it enhances prospects for social mobility in the aggregate. There are no guarantees here, but there is usually hope.

CONCLUSION

Nowhere in the Pacific Rim does one find a chorus of cultures so brazen and vocal as in Los Angeles. There is no conductor in sight; at random intervals, singers walk on or off the stage in assorted clusters, and discordant notes abound. Yet somehow, despite the ludicrousness of it all, the whole production seems to work. One cannot help but pause in wonder and awe at the siren song of the North American capital of the Pacific Rim.

Los Angeles is the projection of America onto East Asia, of East Asia back onto America, and of America onto itself. There is much here for other Pacific Rim cities to learn from, but this is not to suggest that Los Angeles is a role model for others to emulate. Crime rates here reflect a persistent violent streak in American culture. Tolerance of individual liberties is at times too difficult to distinguish from a tolerance for human degradation in the form of drug abuse, homelessness, and an entrenched underclass. Yet the ongoing contribution of Los Angeles to the Pacific Rim cannot be overstated. In no other single location is the entire spectrum of Pacific Rim cultures, activities, and interests so fully represented. It is a living experiment in the interplay between these cultures, and it is here to partake of . . . if you dare.

ACKNOWLEDGEMENTS

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CHAPTER 3

SAN FRANCISCO: LOSING ITS PLACE ON THE PACIFIC RIM

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INTRODUCTION

The influences of Pacific Rim trade go well beyond the movement of goods and services. Entire communities are affected by the new social, cultural, and economic transition. Few cities illustrate this transformation as clearly as San Francisco. San Francisco has not only become a center for international exchange, it has also become part of an international San Francisco Bay Area metropolitan system of four major cities rather than a single dominant international city. For over one hundred years, San Francisco was queen of its region, the dominant city in a thriving state, the only metropolitan community west of the Mississippi, and the intellectual and financial capital of the Pacific community of cities. In the last three decades, San Francisco has become both less of what was and been forced to share its international role and its economic destiny with its rising metropolitan neighbors in San Jose, Oakland, and Walnut Creek. It no longer is the *only* important city in the state or the most important city in its region. However, San Francisco remains one of the truly international cities of the world and the intellectual and spiritual home of the Pacific Rim federation of major cities. San Francisco has changed a great deal from the forces within the Pacific system of nations and the rising competition of both cities elsewhere in the Pacific as well as within its own region.

San Francisco's population and its economy reflect this transformation dramatically both in cultural and spatial dimensions. San Francisco, as we will show in this chapter, reflects the epitome of the Pacific Rim thesis outlined in the opening chapter. The changes the City has undergone have paralleled the rising influence of both Asia and Latin America on it. We will sketch how the San Francisco economy has changed dramatically over the last three decades, how the employment patterns and population composition are shaping its destiny, and how the patterns of commerce have altered the functions of the City of San Francisco and transformed its economic and social base.

SAN FRANCISCO AND THE BAY AREA

San Francisco is unusual for American cities in that it acts simultaneously as two local jurisdictions—a city and a county. The reasons for this go back to the incorporation of the State of California into the Union in 1850. San Francisco's unique political character sharply divided it

from the rest of California. Its uniqueness as both a place to live and work, and as an international and cosmopolitan community sets it apart not only from the remainder of the state but from the western United States. San Francisco was the launching point for gold traders in the 1840s who travelled to Australia and Latin America as well as the Chinese immigrants who came from Asia to work in the gold fields and build the railroads that carried that precious cargo across the nation and around the world. In a sense, San Francisco has never been a part of the State of California but an international entrepot attached to the North American mainland physically, but emotionally tied to Asia and the Americas. Illustrative of this fact is that the character and composition of San Francisco's population and its public attitudes have always been viewed as peculiar, too tolerant, foreign, and cosmopolitan. This is reflected in almost all things San Franciscan, ranging from its arts to the over sixty international firms that form an important part of its economic base, along with its large annual influx of overseas visitors and new migrants. It is not an accident that San Francisco was selected as the first meeting place for the United Nations. San Francisco is the United States' closest equivalent to Geneva, the Hague, or Paris. As San Francisco emerges from the 1980s, its image is stronger than its economic power in the Pacific, as well as within its own region.

The San Francisco Bay Area economy, comprising nine counties (see map, Figure 3-1), has grown from a region of only 1.6 million people and less than one million jobs in 1930 to 6 million people and nearly 3.5 million jobs in 1990. The Bay Area has changed from a region based on the City of San Francisco as its economic heart and engine to a multi-centered system of cities that now out-produce San Francisco in terms of jobs and export capacity. The City of San Francisco contained over half of the region's jobs and forty percent of its population in 1930. By 1980 San Francisco accounted for only 13 percent of the region's population and 20 percent of the employment. In the 60-year period, the region and the City's economic bases have changed dramatically from agriculture and manufacturing to high technology and services. In this transformation, the City of San Francisco has become the dependent and not the master of the region's economy.

San Francisco's location has played a major role in determining its economic transition in two respects. As trade to the Pacific Rim nations of high tech and other goods have grown, San Francisco has moved from being a manufacturing and transportation center to a finance and tourism capital. We will examine these changes through the changing mix of industries in the City and its changing workforce.

THE NEW SAN FRANCISCO ECONOMY

San Francisco's economy is being re-shaped both within the City, its metropolitan region, and trade with the Pacific. The City's economic fortunes have become linked to growth of the new manufacturing base of Santa Clara County. San Francisco began losing its manufacturing base in the 1970s, with nearly a mass exodus in the 1980s as firms producing goods found it cheaper to

Figure 3-1

The San Francisco Bay Area



leave the city for surrounding jurisdictions. As Figure 3-2 shows very conclusively, San Francisco's overall manufacturing growth rate has slowed to a trickle, while San Jose, Oakland, and Northern Bay Area communities have increased their shares of this sector. Even these data fail to reveal the dramatic shift in manufacturing employment to Santa Clara County, essentially replacing San Francisco as the regional wealth generator for the Bay Area. San Francisco has 10,000 fewer manufacturing jobs in 1990 than it did in 1980, and this decline is estimated to continue beyond the turn of the century.

Service Sector Predominates

San Francisco has basically replaced its manufacturing base with service-sector employment, adding nearly 30,000 new jobs in the service sector between 1980 and 1990. Finance, legal, and business services employment has come to dominate San Francisco's economy, making it far more specialized than it was two decades ago. This dependence on finance and related services is growing within the region, with San Francisco competing with its regional communities for this employment base. For example, computer and data processing services made up 24 percent of Santa Clara's business services in 1985, compared with 10 percent in Alameda County and only 8 percent in San Francisco. On the other hand, San Francisco's address remains the draw for the banking industry, particularly international banks. San Francisco's financial district, which comprises 57 square blocks, is the heart of its employment system. It is the most dense concentration of office space in the western United States. International banks compete for this prime office space, with 75 major banks, 23 of which are international banks associated with 11 Pacific Rim institutions such as Sanwa and Bank of California. These banking institutions form the base for the city's FIRE (Finance, Insurance, Real Estate) sector, which is by far the dominant employment sector in the city, as shown in Table 3-1. The banking industry is the largest user of the city's office space, occupying 42 percent of the city's total (Rosen, 1988)! Lawyers are even more plentiful than bankers on the city streets. San Francisco has the highest concentration of lawyers per capita in California, with at least eight firms with more than 100 attorneys. Over 4,000 new lawyers were employed in the city between 1986-88. This pace has slowed recently but still remains robust. Many of these legal firms, according to Professor Ken Rosen of the University of California at Berkeley, ". . . have been fostered by the growth of Pacific Rim trading" (Rosen, 1988). Lawyers and bankers always attract accountants. San Francisco is the West Coast home for all of the major international accounting firms. In employment terms, the FIRE sector represents over 30 percent of the city workforce. This skewing of San Francisco's real estate and employment has had a marked impact on the City.

San Francisco is one of the most expensive cities in the world to live in, in part because of the heavy pressure of financial institutions for space and the labor-intensive nature of their employment. San Francisco's office and commercial real estate is among the highest-priced in the nation.

Figure 3-2

Annual Growth Rates in Manufacturing in Bay Area MSAs and State

Source: Center for Real Estate and Urban Economics, U.C. Berkeley, 1989.

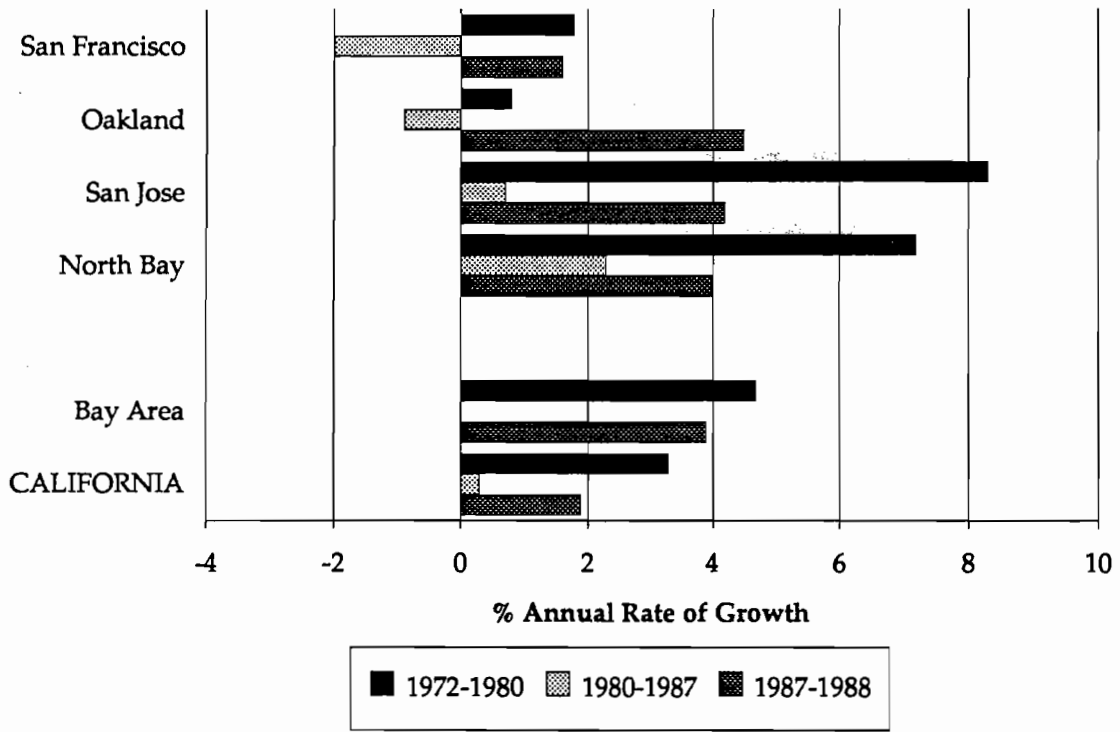


Table 3-1

**San Francisco City and County Office-Intensive Employment, 1980-88E
(December Data, Jobs in Thousands)**

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988E</u>
Total FIRE	87.3	90.3	88.2	84.5	83.8	85.2	81.8	81.8	83.0
# Finance	48.4	52.2	52.1	52.7	52.6	53.0	49.6	48.7	49.0
# Insurance	29.1	28.2	25.9	21.4	20.4	20.8	20.5	21.2	21.5
# Real Estate	9.8	9.9	10.2	10.4	10.8	11.4	11.7	11.9	12.5
Business Services	41.0	46.4	39.1	44.3	45.9	46.5	50.7	53.6	57.0
Legal Services	10.3	11.1	11.5	12.5	13.7	15.1	16.5	18.5	20.5
Engineering/Accounting	23.6	25.3	26.3	23.9	23.6	21.9	20.4	20.4	21.0
Total Office	162.2	173.1	165.1	165.2	167.0	168.7	169.4	174.3	181.5

E: Salomon Brothers, Inc., estimate.

Sources: California Employment Development Department; Salomon Brothers, Inc.; Rosen, 1988.

Japanese, Singaporean, Taiwanese, and Australian investors have purchased large shares of commercial real estate in the last decade, with vacancy rates plunging below 1 percent in 1980 (Rosen, 1988). In a two-year period, rents increased 1.5 to 2 percent per month, leading to massive relocation of office users to the nearby suburbs. However, this move to the suburbs was not among the Asian international tenants, for the most part, but domestic and expanding California-based firms like Bank of America. International firms, particularly Asian firms, were reluctant to move away from the city. As a result, office rents and purchase prices of commercial and office space remained high.

The immediate impact of the high rents and prices in the city was to create a greater competition between Los Angeles and San Francisco as an international financial center. In the early 1980s, Los Angeles began to compete very favorably for financial institutions; it now surpasses San Francisco as the Pacific Rim financial center. Moreover, as a total and relative job producer, San Francisco began to lag behind both the State and Bay area job growth rates, as illustrated by the FIRE sector in Table 3-1.

Trading to Dependence

San Francisco has always been a center for trade. The emergence of the computer industry increased its relative position in this regard. Trade links with the Pacific Rim were always strong and increased over the last several decades. Today, the Port of San Francisco (Air and Seaports) sends over 97 percent of all its goods to Pacific Rim nations, with the vast majority of these exports going to Asian nations (Figures 3-3A and 3-3B). Anticipated imports follow almost the same pattern, with 88 percent flowing from Pacific Rim nations. The Seaport of San Francisco is relatively anemic in actual trade transactions, having lost its Bay Area trading position to Oakland nearly three decades ago. On the other hand, San Francisco Airport has become even more dominant, carrying over 86 percent of the air cargo and passenger traffic to and from the Bay Area (Figure 3-4).

Goods traded in and out of San Francisco are very surprising. For the most part, San Francisco's maritime port imports agricultural products and chemicals. On the other hand, metals and heavier goods go through the Ports of Oakland (containerized) and Richmond.

The City of San Francisco's trade position stems far less from its port transactions and more from its trade services and management operations. While goods are shipped to and from several Bay Area ports, the management of these services remains headquartered in San Francisco, as shown in the stylistic map (Figure 3-5). As the figure shows, maritime services have remained heavily concentrated in San Francisco, while trucking and warehousing have moved away from the city. There are two good reasons for this. First, there is a relationship between financial services and maritime services both in personnel, and space and communications requirements. Second, these firms do not need to locate near their customers (Campbell, 1986). The maritime services are

Figure 3-3a

Port of San Francisco's exports are highly focused on Far East trade

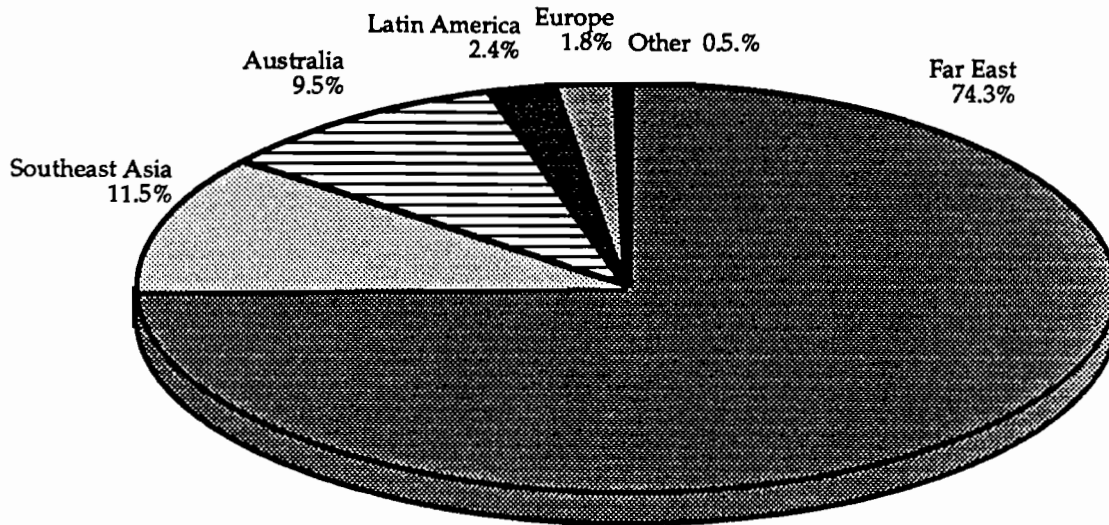


Figure 3-3b

**San Francisco has developed a balanced mix of import trade routes:
1988 Market Shares**

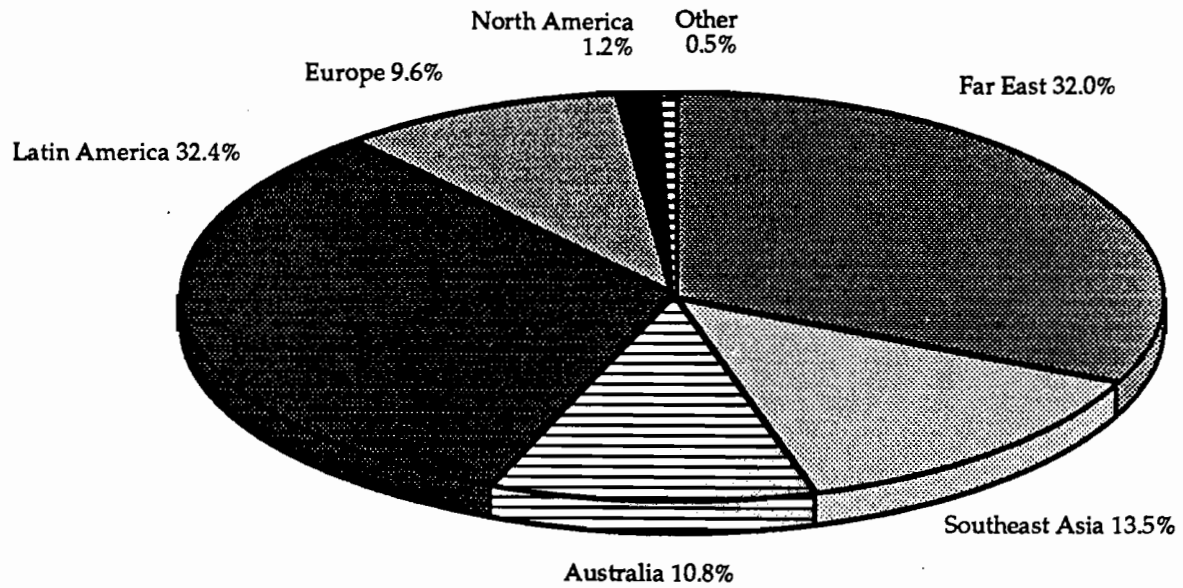
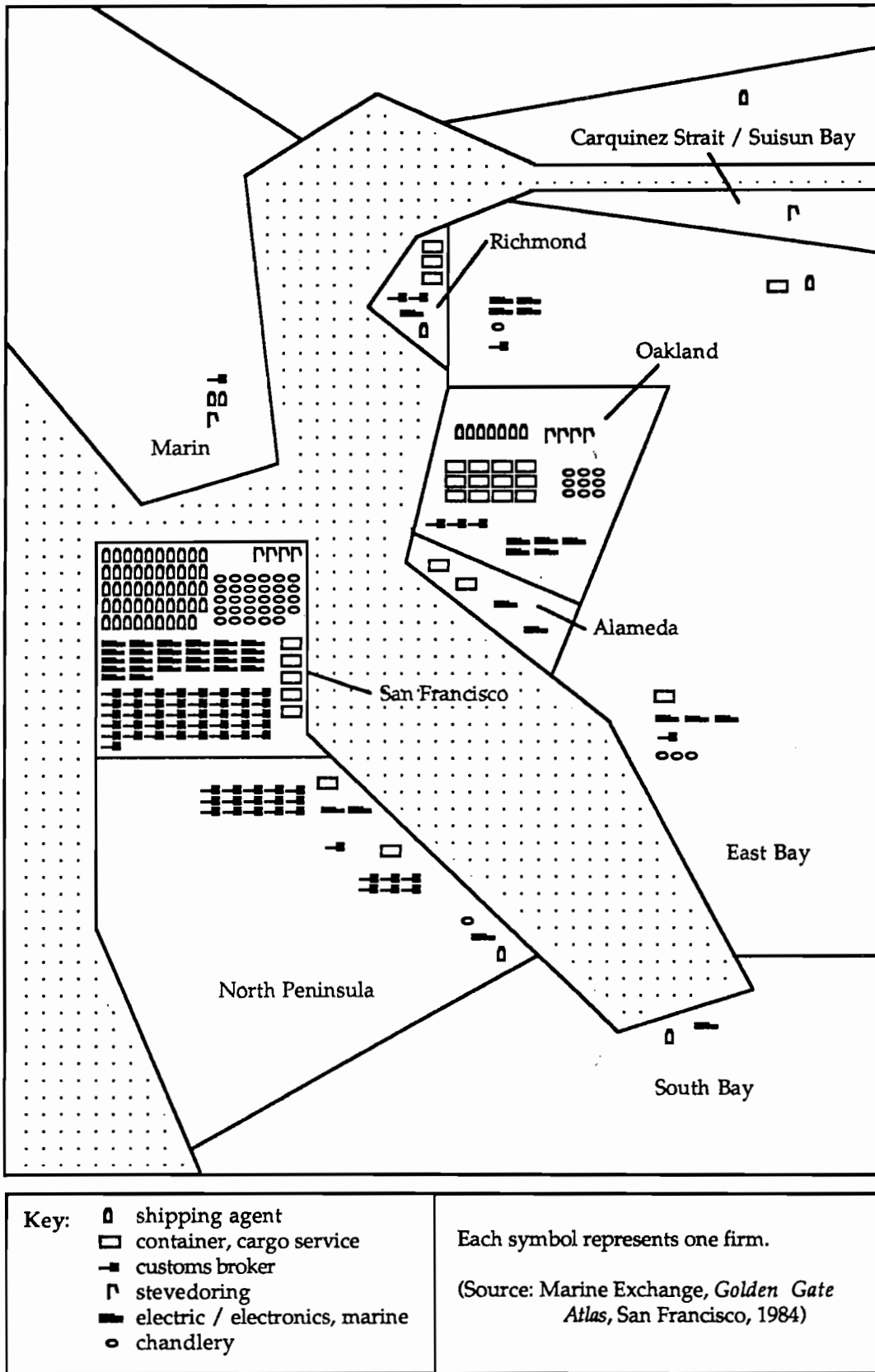


Figure 3-4

Location of Selected Maritime Services, 1984

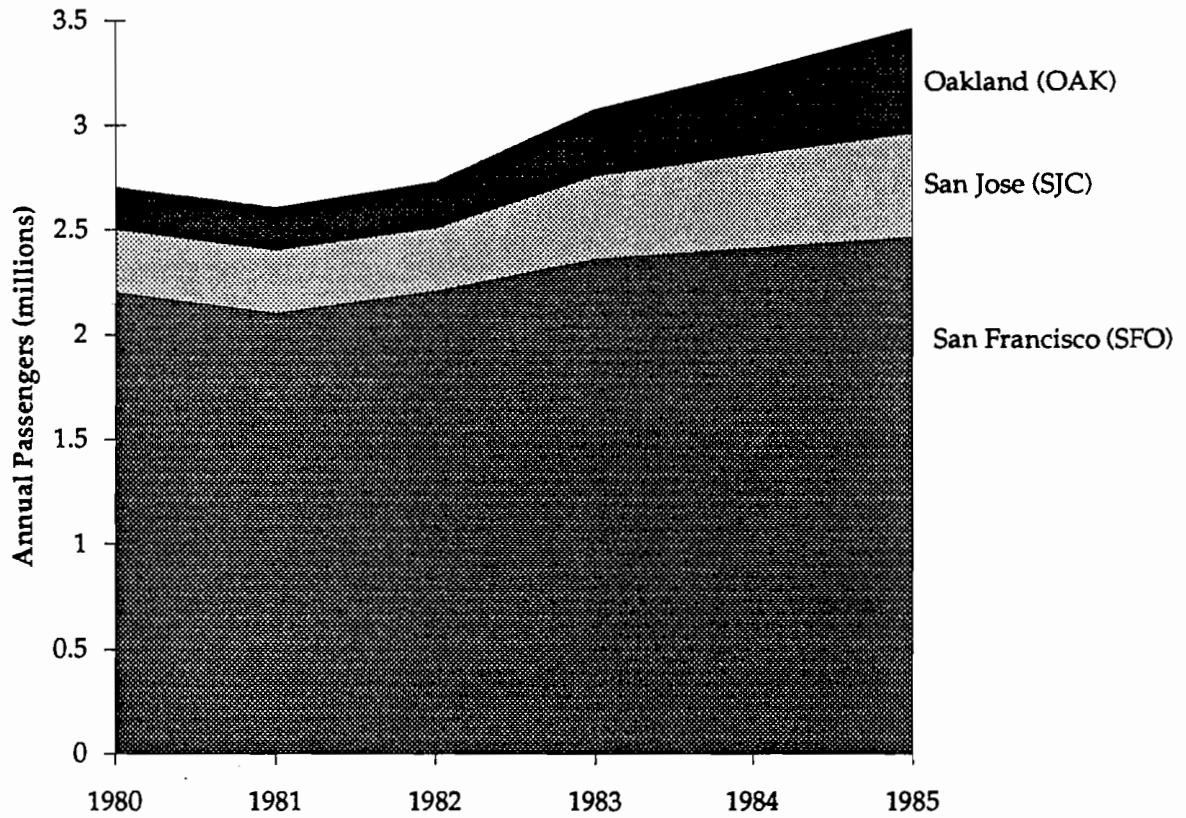


Sources: Marine Exchange, *Golden Gate Atlas*, San Francisco, 1984.

Figure 3-5

Growth in Bay Area Air Traffic, 1980-1985

Source: Airline Passenger Report, San Francisco Airport, 1989.



attracted to the address prestige of San Francisco (which cannot be overlooked for white collar workers and their peers), and the international name recognition of San Francisco.

As Campbell points out, San Francisco's maritime base in the Pacific Rim exists because

. . . . The existence of port activity encouraged the early development of an extensive system of supporting banks, legal offices, accountants, freight forwarders, etc. These businesses eventually diversified into non-maritime activities. Consequently, when the city port business began to decline in the 1960s, these businesses were able to remain in the city and to thrive. The presence of these businesses is seen as a key factor in San Francisco's unusually smooth and successful transition from manufacturing to a leading world corporate city (Campbell, 1986).

In essence, San Francisco has maintained the prestige position in trade and finance, but lost the high-multiplier, job-producing components of both sectors to other neighboring regional communities. There has been very little tension regarding this transformation until recently. The issues of San Francisco's industrial capacity has become a major public debate. Recent data on job losses to the suburbs, combined with key decisions regarding military base closures and the potential loss of the professional baseball franchise, have created a bit of economic paranoia among civic leaders. These problems were made very apparent by the October 17, 1989, earthquake which interrupted commercial activity in the City for over four months, eroded investor confidence, and reduced the corporate prestige of a San Francisco address. As a result, the San Francisco economic base was exposed as the soft underbelly of a regional economy that is primarily dependent on Santa Clara County, as Figure 3-6 illustrates. In fact, San Francisco, by almost any measure, has become a dependent economy — dependent upon growth of industries outside its borders, dependent upon foreign and domestic visitors to its retail establishments, and dependent upon government to maintain it as the quasi-capital of the western United States. Finally, San Francisco is dependent upon Asian Pacific firms and their recognition of it as the major port of entry for capital to North America.

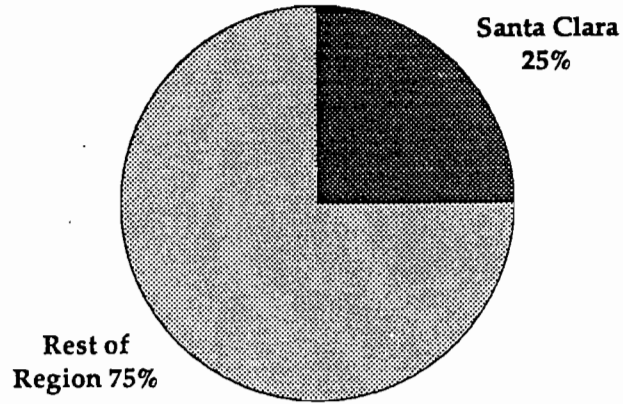
Tourism —Dependent on the Tee Shirt

Tourism is an adjunct to commercial trade. In this area, San Francisco has done well. The city attracts nearly 30 million visitors a year through the airport. Almost 40 percent of these visitors come for business reasons and an equal percentage for vacation, spending 1.7 billion dollars in 1987 (Rosen). Visitors to San Francisco resemble the goods-trade patterns shown in Figure 3-3A. Japanese and other Asian groups remain the primary tourists because of their relative wealth in comparison to the US dollar.

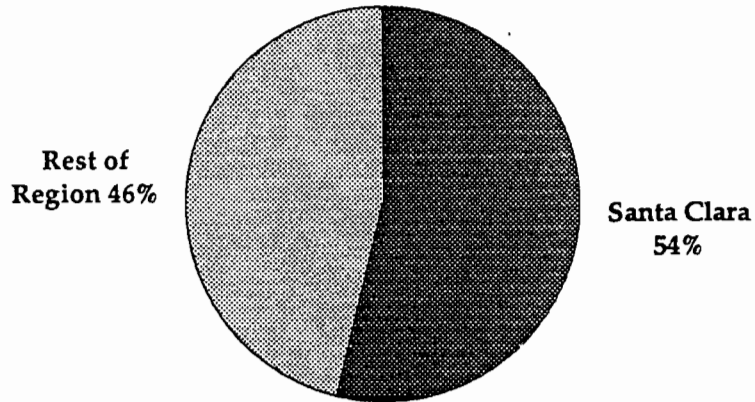
Tourism to San Francisco is a mixed blessing at best. The tourist accounts for almost 8.2 percent, or approximately \$57 million 1989-1990 (San Francisco City Planning Dept., 1990) of San Francisco's sales tax revenues. These revenues are generated by retail sales and bed taxes associated

Figure 3-6

Santa Clara County's Share of Regional Manufacturing



1960



1990

with the tourist stay in the city. Since sales are such an important component of the city economic base, there has been an inordinate rise in low-end retail activities throughout the city. Local merchants complain of the endless numbers of T-shirt shops in formerly residential retail areas such as Haight-Ashbury, the Tenderloin, Fisherman's Wharf, and Market Street. These shops reduce the availability of space for higher-value items and change ownership almost as frequently as they pay rent.

Tourists also pay handsome fees to use city services such as the famous cable cars. However, these revenue streams are very fickle. San Francisco was just recovering from the 1989 earthquake when "Desert Storm" hit the local economy. The war with Iraq was not popular in San Francisco, as demonstrated by national television coverage. This coverage of demonstrations in the City hurt tourism even more than the war itself. Tom LeDuc, president of the Northern California branch of Kentucky Central Life, represented business sentiment in San Francisco regarding the city's image to the nation with, "I think the kinds of people who employ other people would find the recent anti-war demonstrations on the Bay Bridge embarrassing, if not offensive" (*San Francisco Chronicle*, March 29). As a result, the City has experienced a continuing erosion of its retail base. Retail trade was down 4 percent in 1990 and seemed to be recovering slowly, due to either the earthquake, the war, or the repair of key freeways. In addition, international visitors come to the city because of its diverse population base.

A NEW MIX — SAN FRANCISCO'S MINORITIES BECOME THE NEW MAJORITY

So-called minority groups now outnumber whites in San Francisco. San Francisco has become the Bay Area welcome center for international migration, particularly Asian and Latin American migrants. In the recently completed 1990 census, San Francisco's Asian population increased by 63,000 persons, or 43 percent, since 1980; its white population decreased by 2 percent; and African-Americans decreased by 8.5 percent. The large increase in Asians accounted for the modest 6.6 percent increase in population overall. But the good news in this statistic is that San Francisco stopped losing population as it did in the decade of the 1970s. The large Asian and Hispanic population, combined with other minority groups, makes the minorities a 59.7 percent majority of San Francisco's population. Most are foreign-born. They have added energy and strength to the city labor force. On the other hand, this new population has influenced the movement, or "white flight," of the city's white population from the city to the far exurban ring of suburbs as much as 50 miles from the city center. San Francisco public schools reflect the changing population base with 18.7 percent Black, 34.4 percent Asian, and 19.7 percent Hispanic, and Other 12.2 percent (includes Samoan, Vietnamese, Cambodians, and Interracial) (San Francisco School District, Oct. 4, 1991).

San Francisco's population dynamics are intimately tied to the region's demographic changes. Both the City and the region experienced losses in young adults (18-25), while YUPPIES

(35-44) increased, and the older MUPPIES (45-55) also increased. This regional population profile is reflected in San Francisco, but more importantly it is this population base that forms the City's labor force. San Francisco had over 32 percent of its workforce in professional and managerial jobs in the 1990 census. This workforce is predominantly high-skilled, earns a high income, and has small families with few dependents. The implications of this demographic profile is that the Bay Area households and labor force have grown far more rapidly than the population.

This age- and income-skewing has had dramatic impacts on San Francisco in two respects. First, housing prices have skyrocketed and far outstripped the average wage-earner's capacity to buy in the City. The median home price in San Francisco is over \$250,000. This has sent a good portion of the population to outlying suburbs in search of housing. Second, the City's personal income growth has made it one of the most expensive places in the world to live, with a mean income of \$41,200 (Association of Bay Area Governments, 1990). As a result, San Francisco is losing its heart — its working middle class. It is now a city of the very rich, the minority immigrants, and the poor. The effects of San Francisco's housing and income distortions are clearly visible on the city's streets. Clearly, many of these homeless are not displaced by newcomers or rising rents. They are homeless due to other forces in the economy and the society. But San Francisco's very tight housing market and white collar employment system create an opportunity gap for many of the current residents as well as its new in-migrants.

SAN FRANCISCO'S DILEMMA — ROOM FOR WHOM?

It is clear that many people love San Francisco. San Francisco was named the "world's favorite destination" in 1991, by *Travel Magazine*. The lure for visitors and residents is very similar. It is a rich, cosmopolitan, scenically beautiful environment. Visitors seek this environment as an opportunity to mix in a slower-paced version of New York, Paris, Rome, or Hong Kong. All of these are manifest in the City. There are amenities of nature and culture, both of which are delicate. Too many visitors spoil it for both themselves and locals. The locals prize the city's office views and its intact downtown retail center. In fact, San Francisco and New York are among the few major American cities that have retained strong retail cores in spite of suburban shopping centers.

It is the delicate balance between those who want to experience the city, and those who live and work in it, that is at stake. Visitors to San Francisco fuel the city economy. Visitor services now form battle lines in the city. In the Tenderloin District of the Central City, where the Hilton Hotel is located, developers and business interests are trying to move out residential hotels, low-income apartments, and sex shops to make way for more high-rise hotel and restaurant development. The battle over this area is reflected all over the city as development pressures for visitors impinge on the needs of local neighborhoods. This fight has several dimensions. The City is a co-conspirator with developers because, since Proposition 13, low-income housing is a burden on city resources, and

sales taxes compose a far larger share of city revenues, as discussed earlier. In addition, social services, particularly since the AIDS epidemic, threaten to paralyze the city. It is estimated that 4 percent, or almost 30,000, of the City's residents are infected by this disease, costing the city over \$24 million dollars in 1989 and growing (*San Francisco Chronicle*, April 15, 1990).

The Merchants' Dilemma

Merchant interests in generating income from tourism is scarcely confined to large hotel corporations. Merchants in Chinatown waged an all-out war on former Mayor Agnos for his proposal to remove the earthquake-damaged Embarcadero Freeway (that restricts city views of the Bay). This less-than-two-mile stretch of controversial freeway represented, for the merchants, their only hope of re-establishing their visitor business base that was severely curtailed after the Loma Prieta Earthquake. As a result, merchants paid to have maps of the city's retail area handed out at bridge crossings and the airports. This state of semi-desperation is exacerbated by the very high rents small merchants must pay for their locations. San Francisco's commercial rents in the retail area are \$60-\$85 per sq.ft., among the highest in the nation. Yet San Francisco remains the most lucrative retail market in the nation, outpacing New York, Chicago, Los Angeles, and Philadelphia. Downtown San Francisco has over 6 million of the region's 60 million square feet of retail space. The City has to compete for retail sales in an atmosphere where there are 17 sq.ft. of retail space for every person, compared to a national average of 15 sq.ft.

What surprises San Franciscans is the fact that the City is no longer the prime destination for local shoppers. The three large metropolitan areas of Oakland, San Jose, and Walnut Creek all added substantial retail capacity. The regional competitors have an estimated 20 million square feet of retail space, with 23 regional shopping centers and twelve super-regional centers of nearly a million square feet apiece. San Jose is becoming San Francisco's most formidable competitor since refurbishing its downtown, adding new office space, developing a convention and sports center, and attracting a major-league hockey franchise. San Jose's drawing power was dramatically illustrated when the San Francisco Giants baseball team elected to move to that city if suitable facilities could be developed. It is uncertain whether, in the current economic climate, San Jose's voters will commit themselves to building a baseball stadium. Nonetheless, the point has been made that visitors for baseball, entertainment, shopping, and recreation are vying with local residents for the attention of policymakers.

The Office Glut

The office worker is also now the occasional user of the city. San Francisco's office space was increasing at an alarming rate until the voters initiated Proposition M in 1986. This measure limited the amount of floor space of new developments to 475,000 sq.ft. per year until 1996. As Rosen (1988: 32) put it very emphatically, regarding Prop M, ". . . it will be impossible to construct

modern high rise office buildings with large (more than 25,000 square feet) and medium sized (18,000-24,000 square feet) floor plates." In part, San Franciscans were tired of having their sun blocked by ugly skyscrapers. But they also did not want any more workers in the city. City worker needs were spilling over into the neighborhoods and taking up warehousing and industrial space, particularly in the Mission District adjacent to the Downtown. Neighborhood residents were no match for slick developers who wanted office space for architects, engineers, and consultants who serviced the central city market area. Another project caught in this crossfire is the Mission Bay proposal, put forward by Santa Fe Railroad's real estate arm. The plan is to build a mixture of housing, commercial, and (at one time) sports complex with office of 4.8 million sq.ft. on the edge of the city. This grand plan has been stymied by voter hostility to more high-income jobs coming to the city, more dense development, and animosity toward the developers' and architects' schemes. Yet this space offers one of the few opportunities for the city to add new jobs, increase its residential population, and reduce commuting. In a sense, the San Francisco voters have attempted to control the city's future, but no one knows how to guide the city to a new destiny.

The Other Cultures

It is not just the rich or the middle class that are caught in the newcomer/visitor squeeze. San Francisco's tolerance has always been one of its virtues as well as a dilemma. In the 1960s, San Francisco became known as the haven for the "flower children." Later, the city was equally tolerant to the emergence of the "Gay" culture. San Francisco's Gay population is estimated to be 65,404 (*San Francisco Chronicle* Statistics Office, 1989). San Francisco is certainly the Gay Capital of the Pacific Rim. Its size and its political influence are well known. However, not all San Franciscans are proud of the openness of the Gay lifestyles or some of the fringe elements that associate with it. Gay-bashing has reached serious proportions in the city, in part because of the resentment of some groups toward Gays and the clash between Gay and other cultures that live in close proximity to one another. Gays have been a source of economic importance to the City as well. They attract some visitors who share their lifestyles from around the world. Gay men and women are also relatively affluent. As a result, they have become a source of considerable real estate competition with traditional populations in the city. Gentrification of some Black and Latino areas, such as the Fillmore District and Upper Mission, by Gays has created considerable friction resulting in violence. The means to co-exist have not been found to date. Again, the AIDS epidemic has made local residents more tolerant and coalesced many conflicting forces into mutual action to resolve the problems responsibly.

Those Without

The homeless represent a particularly vexing problem for San Francisco. The city has prided itself on welcoming everyone. But the homeless present new problems for this civic virtue. Home-

lessness may well have its roots in national wealth and income distribution, but the victims are not evenly spread across the nation or even across the Bay Area. San Francisco has the largest share of homeless in the region and one of the largest groups in the nation. It is estimated that the homeless population is over 4,003, with a total population of 1,566 visible on the streets in 1990 (*San Francisco Chronicle*, April 13, 1991). Civic leaders do not know how to come to grips with the problem. Jobs are not much of an answer. There are jobs in San Francisco, but they do not match this population's needs for a variety of reasons. Even if the homeless can find jobs, neither San Francisco nor the region is providing enough housing at the low end of the scale for people trapped in these conditions. San Francisco housing prices increased 121 percent in the 1980s. Even with rent control, San Francisco has few units within striking range of low-income workers. Moreover, the traditional option of the lower income groups to move to nearby areas for lower rents has disappeared. The multiple-unit housing supply has only increased modestly because most private builders have abandoned this market due to community opposition, environmental regulation, and lack of tax incentives.

Non-profit housing groups such as BRIDGE Housing Corporation (a national model of non-profit low-income-housing provider) have moved in to fill this void in the city. BRIDGE has produced 1,300 units in San Francisco and 3,000 in the Bay Area. This is a very small drop in the bucket. All of the non-profit housing groups, combined in working with local governments (including San Francisco), have done little to produce enough affordable units for the emerging low and middle classes. As a result, there is no filtering down to the level of the homeless. It appears that homeowner interests, in San Francisco, are just as wary of the homeless as perspective new residents as they are of environmental hazards.

San Francisco is at a crossroads with respect to whom it can serve. Simple demographics suggest that it needs a stronger resident family-oriented population. Yet it is caught between the immediate needs of business to expand, and that of property owners to protect their values. The issue is: who is San Francisco for and how can it find itself? We turn to that question next.

SAN FRANCISCAN IN SEARCH OF SAN FRANCISCO

San Francisco has been accused of being narcissistic, arrogant, and smug regarding its role in the nation, the state, and the region. San Franciscans believed that nothing could touch the glow of the City. It was the only real city west of the Mississippi, as the *New Yorker* made very clear in a famous map depicting the United States geography, which placed San Francisco and New York as the only two cities with a vast wasteland in between. San Franciscans basked in this view of themselves and paid scant attention to the city's competitors or its internal economic structure. Several events have shaken San Francisco out of its complacency, however, and wiped the smug smile off local residents' faces.

Cracks in the Image

Seemingly without any challenge, the Port of Oakland containerized in 1961, taking almost all of the freight from San Francisco wharfs. This movement of transportation from the City created the first small stampede across the Bay to East Bay communities by commercial interests. This change scarcely made a ripple in City Hall. However, it was the precursor to even more dramatic economic reversals for the city.

In late 1979, Bank of America made a decision to move its back room operations to Contra Costa County, over 20 miles from the city center. Bank of America's move was followed very shortly by a second stampede of major office tenants leaving the city for lower rents and better labor forces in the I-680 corridor, between Concord and San Jose (see map, Figure 1). This corridor, which had little office activity in the early 1970s, has become the new home of major players like AT&T, Chevron, Pacific Telesis, and Wells Fargo. The Concord-Walnut Creek area has added almost 20 million square feet of office space in little more than a decade.

Meanwhile, sleepy Oakland, having gained a perch with its Port, began to challenge San Francisco's rights as an administrative center. Oakland has added 2.5 million sq.ft. of new space for government and administrative users since 1980. Moreover, Oakland pulled off the coup of the decade by getting the U.S. General Service Administration to construct a one-million-sq.ft. office building in the city center. In addition, Oakland convinced the California Department of Transportation and the University of California to move into the city central area, adding several million more square feet of office space.

San Mateo was not idle in all this, adding 15 million sq.ft. of office space closer to the San Francisco International Airport and taking business away from the City.

The Strategic Plan

In response to this turn of events, in 1981 the Chamber commissioned Arthur Andersen to develop a Strategic Plan for the city. Even with 54 percent of the region's office space re-located outside the City by 1981, only the Chamber of Commerce sounded an alarm for the future. It was clear that San Francisco was losing its position in its region. The City is no longer the Capital of California, and now, it seems, no longer the Capital of the Bay.

The San Francisco Strategic Plan was not so much a strategy as a reaction. The Plan, published in 1983, called for the City to initiate 19 key strategies aimed at diversification and retention of business, reducing office cost differentials with surrounding jurisdictions, improving the city's capacity to attract visitors, and dealing with looming issues of fiscal health, infrastructure, and zoning (*San Francisco Business*, Feb. 13, 1983, Vol. 18, No. 2).

In terms of planning, the document was flawed initially by a lack of total community involvement and no real follow-through instrument. However, the problems identified and the direction proposed were an accurate reflection of what was and is required to put the city back on course.

While San Francisco lost office space and blue collar jobs, this was not considered of major importance. The real shock to the City was the fact that Los Angeles was not only gaining on San Francisco, but surpassing it as a financial center and Pacific Rim Gateway. The Los Angeles Olympics in 1984 made it clear to the world that L.A. was a more important place than San Francisco. The data were already portraying the fact that most international transactions were taking place in Los Angeles through 13 major Pacific Rim banks, led by Mitsubishi and Sanwa's headquarters facilities. In essence, San Francisco was playing a back seat to Los Angeles! Clearly, this was traumatic for the civic psyche. But even these data failed to create sufficient internal momentum to re-examine the City's destiny. Two other events seem to be creating deep-enough anxiety to pull the city out of its long lethargy.

Shaking and Quaking the Image

The Loma Prieta Earthquake, mentioned earlier, did more than shake up San Francisco. It re-shaped the regional economic geography forever. While economists were well aware of the regional economic shift in gravity, local entrepreneurs and citizens were less aware. The aftermath of the earthquake left the Oakland Bay Bridge out of service for several weeks. In that interval, people on the East Bay discovered that they had plenty of retail and recreation opportunities in their backyards. Moreover, corporate leaders in information- and computer-dependent environments decided that having an East Bay sub-location for computer storage and operations was prudent management policy. Further, it would be wise to disperse employees to locations closer to work and thereby save movement cost and reduce anxiety over family separations in an emergency. But the most direct reason for the shifting pattern was the population figures that employers and retailers could not ignore. San Francisco was becoming an older and less viable market center than the East and North Bay areas. One clear signal of this transition was when Bank of America, again taking the lead, relocated some 6,000 workers to Vacaville, over 40 miles northeast of the City. In the first three months of 1991, San Francisco lost 428,000 sq.ft. of office tenants, boosting the office vacancy rate to 13.9 percent, while neighboring suburbs increased office tenants. These losses have been attributed to "... high payroll taxes, difficulty in getting building permits which adds to the cost of remodelling, a host of actions by city government, from recent video terminal law to declaring San Francisco a sanctuary for conscientious objectors" (*San Francisco Chronicle*, March 29, 1991).

In essence, San Francisco finds itself no longer the leader of its own region. A *Forbes* magazine article (September 2, 1991) reflected a new national anti-San Francisco attitude heretofore almost unheard-of in the national press. In the article, John H. Taylor catalogues a long list of perceived anti-business actions taken by the City as indicative of a new "Self Destructive Lunacy" of San

Francisco politicians who ". . . seem determined to slaughter the geese that lay the city's golden eggs" (John H. Taylor, *Forbes*, Sept. 2, 1991). Some civic leaders have called for another strategic plan. The new plan, fashioned on the model of the more successful L.A. 2000 planning model, seeks to reposition the city regionally and internationally. However, it was very clear from early results of this new planning effort that San Franciscans have less agreement on what they are for than on what they are against. In mid-1991, the proponents of the new planning effort halted their project, citing a lack of overall enthusiasm for the approach and renewed suspicion regarding its potential pro-business orientation.

SAN FRANCISCO'S FUTURE — FASHIONING SOMETHING FROM

The future of San Francisco is clouded by its past and its promise. It is difficult for San Franciscans to agree on what is needed for the city or to take the city out of its Pacific Rim headquarters regional context. It is apparent that San Francisco's future is tied to its international and local regions. To that end, the City is playing a leadership role in proposals for regional planning and growth management. It is clear to civic leaders that the continual movement of population away from the city is shifting the center of economic and political gravity. San Francisco's political and business leaders are enthusiastic about Bay Vision 2020, an attempt to plan, coordinate, and manage growth in the region (Bay Vision, 2020 Plan, Bay Vision Commission, San Francisco). It is a bold plan designed to limit growth to the central urbanized areas. This approach, it is anticipated, will end the continuing suburbanization and make city locations more appealing. Of course, the requirements for single-family housing are not addressed substantially by this formula. Nonetheless, it offers the City a chance to re-assert its economic and political hegemony over the region without substantial transformation in its existing infrastructure. The clash in this plan comes with the implementation. San Franciscans have not approved the Mission Bay Plan, which could revitalize its residential and industrial base. The project has been plagued by a significant "no growth" and anti-business feeling among many local community groups. These groups fear new pollution, congestion, and continued YUPPification of San Francisco. Their fears are not baseless.

However, where does the City go to grow? It is saddled by Proposition M, which limits commercial office space. It has limited land to accommodate new dwelling units. Its housing stock and population are aging. It has very high vacancy rates in its commercial core and its retail base is flagging.

San Francisco must turn to its near and far neighbors for its development. Its far neighbors, the Pacific Rim capitals such as Manila, Tokyo, Sydney, Hong Kong, Singapore, Kuala Lumpur, Jakarta, Beijing, and Seoul, can rescue San Francisco from its recent lethargy by a resurgence of growth and trade. It will be capital, and not goods, that will move between San Francisco and its Pacific Rim partners. San Francisco's economic opportunities are in finance and real estate services, not in hard goods. Within this scenario, San Francisco has educational and technological options

related to the Pacific Rim. One of its richest under-utilized resources is the conversion of the Presidio Military installation, of over 1,500 acres in the city, into a National Park with active community use for any purpose that meets very general guidelines established by the Congress and the Park Service. It is possible that the new uses of this space will act as the catalyst for re-focusing the community socially and economically.

San Francisco remains a key center for education within close proximity of three great universities —the University of California at Berkeley, Stanford, and the University of California at San Francisco. These three institutions are producing the new seedbed for the biotechnology industry and its related technical services. It is estimated that the San Francisco Bay Area contains over half of the commercial biotechnology firms in the nation (Blakely, 1989). This industrial leadership can be translated into continued economic growth in the region and a reinforcement of San Francisco's international importance. But there are risks and limitations associated with this path. First, there is significant community opposition to biotechnology research and development within the city limits of San Francisco. Second, there is a very limited amount of space to accommodate any significant R&D activity in the City. The best sites include the stalled Mission Bay project, the University of California facilities at Parnassus, Laurel Heights, and the Presidio, all of which have significant resident opposition to biotechnology. Finally, biotechnology is at an early stage, requiring far more researchers than operators. As a consequence, the employment benefits of this industry are not politically attractive for a city seeking replacement employment for its lost manufacturing base.

As a result, international finance, including real estate, insurance, and related business services, remains a very clear option for San Francisco. This is a volatile employment area which will be severely impacted by technological innovations in telecommunications and computing. In some respects, the entire world may be wired soon, reducing the need for local banking institutions in the traditional sense. Recordkeeping associated with banking and insurance is already moving away from the central city, *à la* Bank of America. In the not-too-distant future, some bank transactions handling will even move off-shore (such as credit card processing, which is already taking place in Jamaica and Bermuda).

No city can build a future on tee-shirts. San Francisco faces a very hostile competitive environment as it moves into the next century. While the City struggles to find a plausible strategic plan, it must deal with some harsh realities. There is little doubt that San Francisco will remain one of the Pacific Rim's important cities. This importance is likely to arise from the growth and development of its region than internal dynamics of the city economy. In some respects, San Francisco's suburbanization merely mirrors the international trend. However, in one key prospective, it is different. That is, San Francisco may lose its position to one of its regional partners and become only one node in a regional economy. The role the City will play as an equal or peer city in the Bay region is not clear. It is clear, however, that it will have to adapt to this position or have no position at all.

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CHAPTER 4

SAN JOSE: EMERGING CAPITAL OF SILICON VALLEY

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INTRODUCTION

From its beginnings in 1777 as Spain's first civil settlement in California, San Jose was recognized for its agricultural potential. The settlement was placed near the southern end of the San Francisco Bay in the heart of a great 300-square-mile valley, called "Santa Clara," with excellent top soil, reliable aquifer water supply, a mild marine climate, and a year-round growing season (see Figure 4-1). By the 1790s, this agricultural potential was being realized, as the San Jose area's livestock and produce not only met its own needs but also those of the settlements in San Francisco and Monterey (Garr, 1976).

San Jose continued to prosper during the first half of the 19th century, and played a key role in California's transition from Mexican to American rule by serving as the state's first capital from 1849-51. By 1864, the railroad linking San Jose to San Francisco and beyond opened up vast markets for the region's agricultural products. With the shifting away from grain fields to the more profitable fruit orchards and the introduction of mechanized canneries, San Jose's economy took off. By the late 1870s, San Jose had become the leading fruit shipping center in California. Canneries became the city's major industry and remained so until the 1950s, when the high-technology transformation was underway. Indeed, in 1942, half the city's labor force was engaged in canneries and related activities (Gilbert, 1979). At the height of its agrarian success, the San Jose area (Santa Clara County) had over two hundred food processing plants and ranked as one of the fifteen most productive agricultural counties in the United States. This orchard-laden area was so beautiful and bountiful that it came to be known as a kind of Eden, the "Valley of Heart's Delight," the fruit-producing and processing capital of the world (Belser, 1970).

TRANSITION TO SILICON VALLEY

The high-technology transformation of the San Jose metropolitan area really had its origins in the late 1930s, when several talented engineering graduates of Stanford University began their modest entrepreneurial operations, Henry Ford-style.

Figure 4-1

California State and the San Jose Metropolitan Area



For example, in 1939, William Hewlett and David Packard began their firm in a small garage, while Sigurd and Russell Varian started their work with \$100 worth of supplies from Stanford. As these and other firms grew, they generated spin-off firms which in turn sponsored many others.

When World War II began, Stanford's high-tech potential as well as its proximity to Moffett Field military base in nearby Sunnyvale made northern Santa Clara County an important focus for war-related research and manufacturing in such fields as communications, electronics, and radar. With the emergence of the Cold War, especially during the period of hostilities in Korea, an additional surge of high-tech activity developed in the area. At the same time, industrial leaders also found it was not a difficult matter to transfer defense-related technology applications to domestic consumption. Companies such as Sylvania, Fairchild, FMC, Admiral, Kaiser, General Precision, and Lockheed attracted new facilities of a few firms like Ford, General Electric, and IBM. This industrial pattern, consolidated in the post-World War II years, continued to develop in the 1950s and provided the structural underpinnings of future developments. The entrepreneurial and scientific vigor of local researchers spawned the aerospace industry and then a burgeoning of electronics and other related high-technology enterprises. Mergers and acquisitions further increased the number of significant operations (Saxenian, 1983).

By 1950, the county's population had grown to 290,000, an increase of two-thirds since 1940. The lush farmlands on the Valley floor were being sold for development, and attendant residential services followed in rapid order. Unable to attract the industrial base which tended to cluster around Palo Alto-area agglomerations, San Jose initially cast its lot as the bedroom community for individuals working in the North County technology belt. Perceiving this aggressive posture on the part of San Jose, officials of other communities moved to secure their share of the prosperity through annexation or incorporation. Thus, Campbell, Milpitas, and Cupertino, adjacent localities directly threatened by the expansion of San Jose, carved out their spheres of influence (Rothblatt and Garr, 1986).

Perhaps the ultimate innovation in San Jose is the industry-university collaboration at the Stanford Industrial Park. Because its founder prohibited the sale of the land in his bequest, Stanford developed its Industrial Park on 660 acres adjoining the campus. With fifty-five tenants which include Hewlett-Packard and Varian, the Park employs over 17,000 persons and has been an important factor in the continuing creation of a swarm of smaller firms, many of which have grown into major corporations which in turn have spawned other enterprises.

The numerous spinoffs of high-tech activities continued to be staggering in their proliferation, with new technologies emerging in such fields as personal computers and biotechnology. As Table 4-1 shows, there were over 92,000 employees in the electronics industry in 1975, which grew spectacularly to 222,000, or by 141 percent, by 1985 (Employment Development Department, 1987).

As a result of this accelerated development, the San Jose area has become a world center of high technology covering over 1,300 square miles and possessing all the political, social, economic,

Table 4-1

**Santa Clara County Jobs in Electronics Industry:
1975-95**

<u>Electronics Activity</u>	<u>Jobs</u>				
	<u>1975</u> <u>000s</u>	<u>1985</u> <u>000s</u>	<u>1995</u> <u>000s</u>	<u>75-85</u> <u>%</u>	<u>85-95</u> <u>%</u>
Computers	1.4	54.9	74.1	9.9	3.0
Communication equipment	10.2	25.2	32.8	9.5	2.7
Semiconductors	19.6	45.5	43.2	8.8	-0.5
Other electronics components	13.4	35.8	39.4	10.3	1.0
Instruments	16.9	31.8	44.5	6.5	3.4
Wholesale electronics	2.5	6.6	9.9	10.2	4.1
Wholesale computers	1.6	8.2	12.3	17.8	4.1
Software development	.5	6.3	18.9	28.8	11.6
Research and development	6.1	8.1	16.2	2.9	7.2
TOTAL	92.2	222.4	291.3	9.2	2.7

Sources: Employment Development Department, State of California, 1987.
The Future of Silicon Valley, San Francisco, California.

and physical complexities of most major American metropolitan areas (see Figure 4-2). During the 1950-80 period, the metropolitan population grew from 290,500 to 1,295,000 (346 percent), making it one of the fastest-growing metropolitan areas in the nation. The city of San Jose itself grew even more spectacularly, from a modest-sized agricultural processing center of 95,300 in 1950, to 628,300 in 1980, or an increase of 559 percent. This expansion has transformed Santa Clara County from a bucolic agriculturally oriented valley to a bustling international center of technological innovation justifiably known as "Silicon Valley."

SPATIAL AND ECONOMIC DEVELOPMENT OF THE SAN JOSE AREA

As the San Jose area was transformed into what is now called Silicon Valley, it became the most dynamic engine of economic development for the entire San Francisco Bay Region, since it generated nearly one-half of the Region's total employment growth between 1950 and 1980, shown in Figure 4-3.

During the 1975-85 period, employment in the electronics sector increased with a brisk annual growth rate of 9.2 percent, with software development having the highest development rate of 28.8 percent (see Table 4-1). By 1985, nearly one-third of all the 787,300 jobs in the San Jose area were in the high-tech activities of electronics, defense, and aerospace activities (Employment Development Department, 1987). By 1988, the San Jose metropolitan area was home to 2,884 high-technology companies employing about 240,000 people (San Jose Metropolitan Chamber of Commerce, 1990).

This robust economic activity has enabled Santa Clara County to have relatively low unemployment rates and very high incomes. For example, in 1988, the county had a lower unemployment rate (4.0 percent) than both for the state (5.3 percent) and the nation (5.5 percent); and it ranked first in the 1988 median household effective buying income (\$41,717) among all US metropolitan areas (Sales and Marketing Magazine, 1989).

Pacific Rim Reflection

This activity has also globalized much of San Jose's economic development, especially with respect to high-tech trade with the Pacific Rim. For example, in 1989, of the twelve highest-ranking countries in the world, in terms of value of high-tech machinery and electronic equipment imports from the San Jose area, 8 and 10 respectfully were the Pacific Rim nations of: Japan, Singapore, Korea, Taiwan, Hong Kong, Australia, Philippines, Thailand, Canada, and Mexico. Indeed, in 1989, Silicon Valley trade represented about half of California's exports and 13 percent of US exports in these high-tech fields (US Department of Commerce, International Trade Administration, 1991).

The Pacific Rim activity is also reflected in other aspects of the economic and cultural life in the San Jose area. From the establishment of the San Jose Center for International Trade and Devel-

Figure 4-2

San Jose Metropolitan Areas

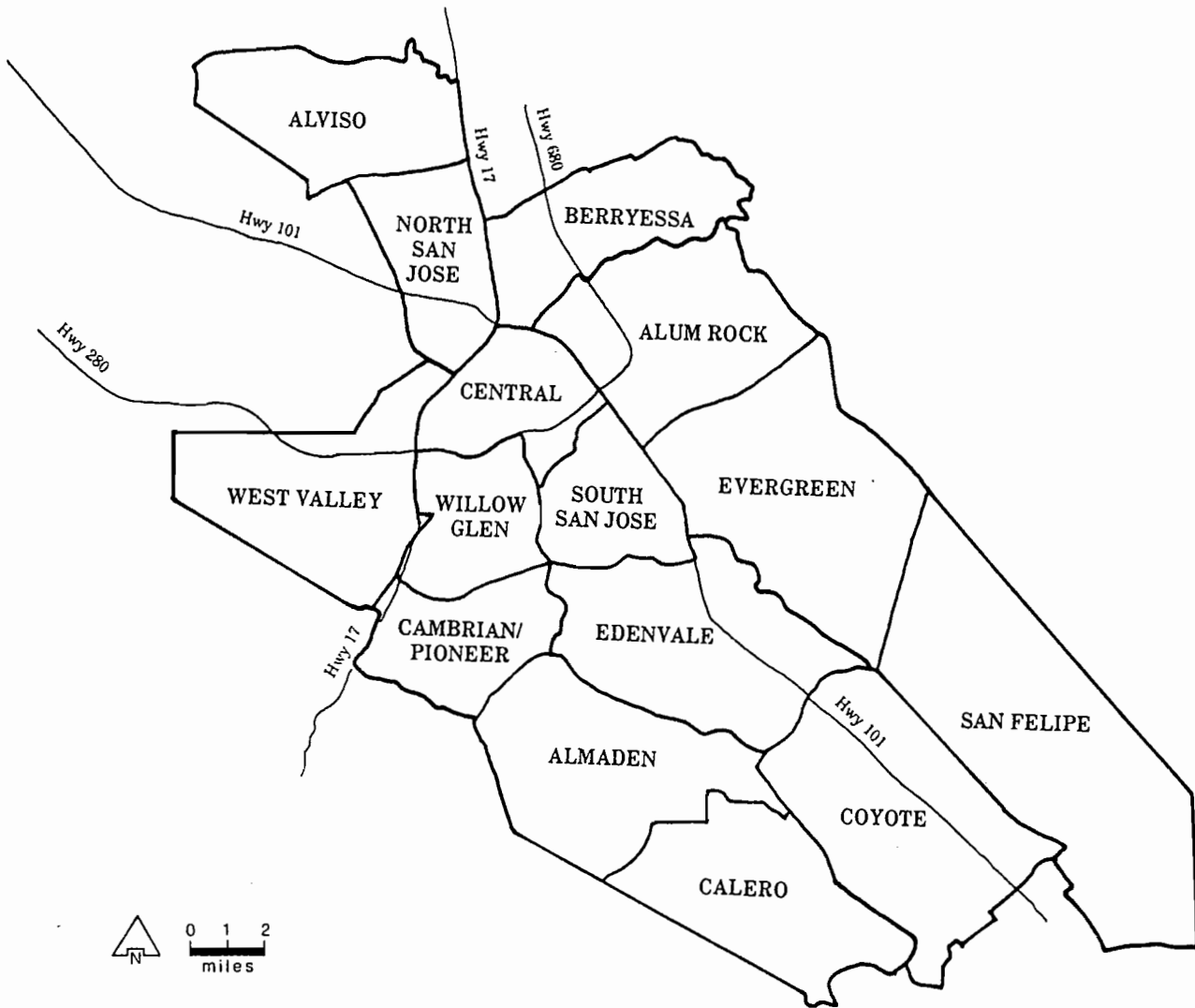
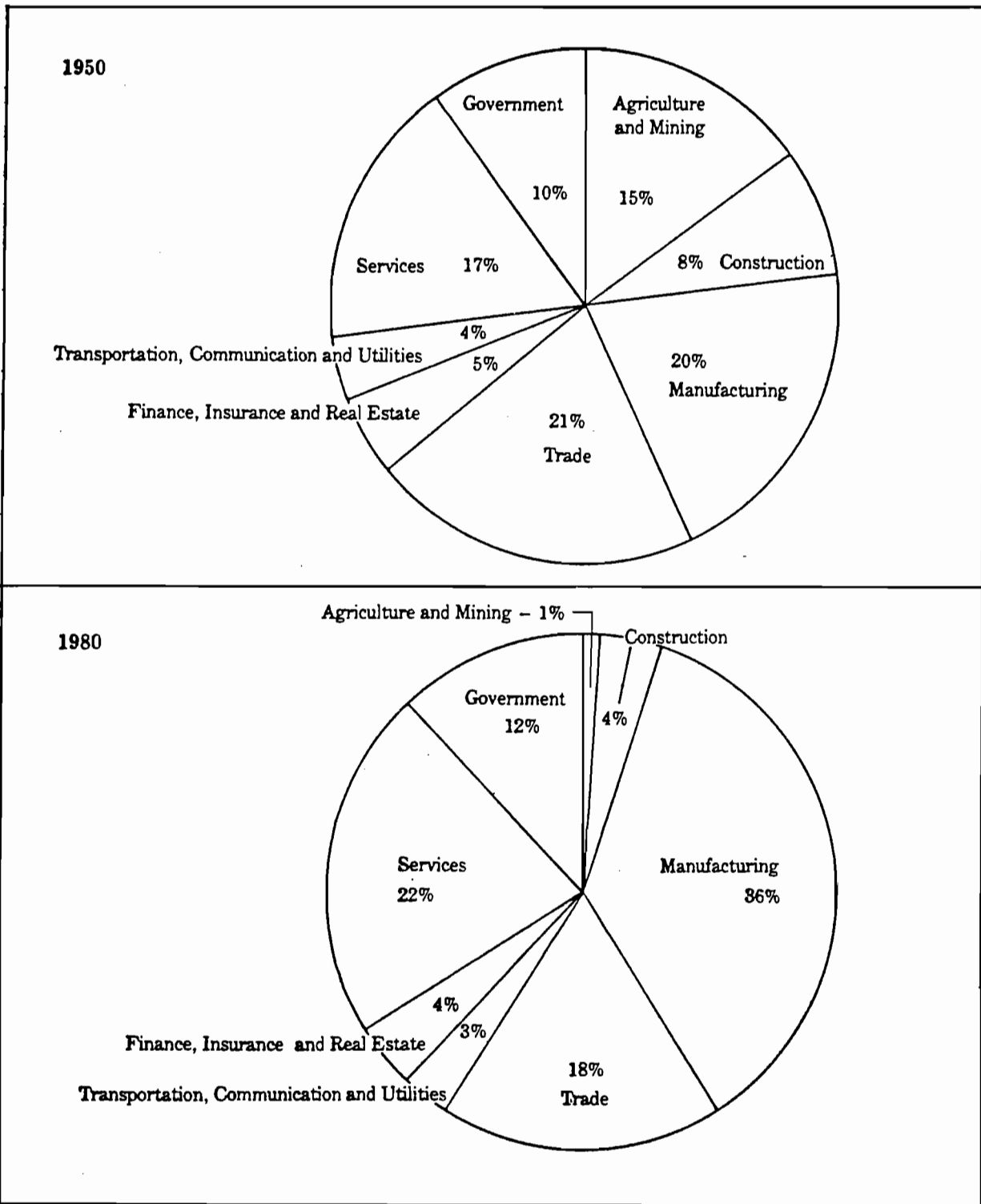


Figure 4-3

**The Changing Composition of Employment by Industry in Santa Clara County:
1950-1980**

Source: San Jose. 1984. *Horizon 2000*. General Plan, San Jose, California.



opment, to the growth of numerous branches of Asian companies and financial institutions, to the creation of many socio-cultural organizations such as the Japanese Cultural Center and Chinese and Japanese-speaking schools, the San Jose region has clearly become integrated into the Pacific Rim. In fact, during the 1980-90 period, the Asian population in the area nearly doubled to reach 205,000, 13.8 percent of the total population (San Jose Metropolitan Chamber of Commerce, 1991).

Another manifestation of San Jose's increasing global and Pacific Rim ties is its dramatic growth of air transportation activity. An indication of this growth is the change in annual passenger use of the San Jose International Airport, which rose from 80,000 passengers to 1.5 million during the 1960-70 period, and more than quadrupled between 1970 and 1990, increasing to 7.1 million passengers. With the extension of runways and the completion of two new terminal facilities, it is expected to accommodate over 14 million passengers by 2000 (San Jose International Airport, 1991). As a major gateway for Silicon Valley, the San Jose International Airport has become an important international hub for several airlines and offers direct connections to key Pacific Rim centers such as Vancouver, Mexico City, and Tokyo.

Rapid Growth and Diversification of Activities

While most projections indicate declines in production employment associated with maturing semiconductor activities, expectations for overall high-tech employment are positive for the 1990s from the continued strength anticipated in the fields of computers, software development, and research and development (Employment Development Department, 1987). In addition, as the total economy of Silicon Valley matures and diversifies, substantial new employment opportunities are expected to be generated in such areas as services and retail and wholesale trade (Brady, 1989). Indeed, the Association of Bay Area Governments (1987) projects that nearly 250,000 new jobs (about a 28 percent increase) will be created in the San Jose area during the 1990-2005 period, which represents over half of the new jobs in the San Francisco Bay Area.

With its 1.4 million residents, the San Jose area ranked in the top 10 percent in population of the 323 metropolitan regions in the nation, in 1985. By 1989, San Jose's population grew to 738,400, enabling it to overtake San Francisco as the most populous city in the Bay Area and to become the twelfth-largest city in the United States. The San Jose area contains over eighty governmental units —fifteen cities, thirty-seven school districts, and numerous park, sewer, water, and other overlapping entities. In actuality, the region is even more complex politically, since many private groups representing various business, environmental, cultural, and other interests are often involved in metropolitan issues, as are a growing number of governmental units outside the county which are providing housing for the expanding San Jose area. For example, in 1985, about 125,000 persons commuted daily to Santa Clara County from the five surrounding counties (Alameda, San Benito, Monterey, Santa Cruz, and San Mateo) (Santa Clara County Transportation Agency, 1985a).

This process of metropolitan decentralization is likely to continue, not only because of global economic forces of dispersion (Castells, 1985; Hall and Markusen, 1985), but also because of the 1978 Proposition 13 tax change in California, which encourages in-lying local governments to capture the more fiscally desirable commercial and industrial activity and push service demanding residential development to the periphery of the city (Dowall, 1984). In addition, this pressure for decentralization is being reinforced further, by the large numbers of baby boomers who are now entering the low-density single-family housing market.

During the past two decades, the expanding Bay Area economy has been generating employment opportunities at a substantially faster rate than new housing, and reasonably affordable housing has been located at increasing distances from centers of employment. This trend is especially pronounced in Santa Clara County. Most of the electronics-related employment opportunities in the Bay Area have developed in the northern portion of the county, near the original centers of technological innovation of Stanford University and the National Aeronautics and Space Administration (NASA), while the bulk of the housing has been provided increasingly in the southern part of the county or in adjacent counties, where land is most readily available and is relatively less expensive. This widening supply-spatial gap has been bidding up the cost of housing dramatically, and has resulted in severe traffic congestion, air pollution, and fiscal inequities in the region (Saxenian, 1985; Cervero, 1989).

The High-Tech Dimension

Although these problems exist in other metropolitan areas, they appear to be more acute in Silicon Valley. First, with the exception of New England, high-technology firms are disproportionately located in newly developing areas outside of traditionally industrial regions (Hall and Markusen, 1985). Such "sunbelt" areas, like San Jose, have typically expanded, mostly after World War II, and have dispersed low-density housing patterns with high automobile dependency and very limited public transportation facilities. In the face of declining resources for expanding transportation improvements and continued public preference for the private automobile over public transit or car-pooling, Silicon Valley highways have become increasingly congested and have generated excessive air pollution (Schoop, 1986). It is not uncommon for employees to have over one-hour commutes, and for firms to limit deliveries to between 10:00 a.m. to 2:00 p.m. (Santa Clara County Transportation Agency, 1987). Indeed, numerous regional surveys found transportation to be the most important problem in the Bay Area, especially in Santa Clara County (Demoro, 1989).

Second, because of the skewed spatial distribution of jobs and housing, communities in the northern portion of the county are "job-rich" and have a higher ratio of jobs to people than the other cities in Silicon Valley (see Table 4-2). This has led to fiscal inequalities whereby these northern communities have more than twice as many tax dollars per capita for public services, such as parks and

Table 4-2

**Jobs Per Household in Santa Clara County Cities:
1980-2005**

<u>Area</u>	<u>1980</u>	<u>1985</u>	<u>1995</u>	<u>2005</u>
Campbell	1.45	1.61	1.75	1.70
Cupertino	2.23	2.25	2.51	2.66
Gilroy	1.11	1.36	1.82	1.68
Los Altos	0.80	0.75	0.80	0.78
Los Altos Hills	0.72	0.68	0.65	0.63
Los Gatos	1.12	1.26	1.28	1.31
Milpitas	1.04	1.79	2.51	2.90
Monte Sereno	1.10	0.27	0.26	0.25
Morgan Hill	0.84	0.99	1.40	1.84
Mountain View	2.12	2.31	2.34	2.47
Palo Alto	3.03	3.20	3.07	3.05
San Jose	1.00	1.12	1.28	1.40
Santa Clara	2.86	3.31	3.30	3.42
Saratoga	0.60	0.61	0.61	0.58
Sunnyvale	2.65	2.96	2.81	2.77
Remainder	0.86	0.84	0.79	0.66
COUNTY AVERAGE	1.52	1.68	1.78	1.87

Sources: Association of Bay Area Governments, 1987, *Projections 87*, Oakland, California.

libraries, than has San Jose, even though San Jose has a greater need since it houses most of Santa Clara County's low-income families, who are heavily dependent on public services (see Table 4-3).

Third, due to rapid and often unpredictable technological and market shifts, high-technology areas like San Jose may be intrinsically more difficult to plan for. Indeed, many of the high-tech firms themselves are uncertain about their future space needs because of unexpected innovations and market changes (Markoff, 1990). As two observers of Silicon Valley have related, "problems happen more quickly in Santa Clara County than elsewhere" (Rogers and Larsen, 1986). Consequently, many communities are overwhelmed by the rapid development and often are unable to provide adequate services, such as parks and infrastructure facilities (Saxenian, 1985; Barneby et al., 1988).

Fourth, the aggressive entrepreneurial spirit, so prevalent in the very competitive high-technology industries, seems to make collective planning and action unusually difficult to organize in a place like Silicon Valley (Malone, 1985). Some observers see this tendency of excessive entrepreneurial self-interest as a major obstacle to the solution of metropolitan-wide problems (Rogers and Larsen, 1986).

Fifth, this competitive spirit also exists among the cities and the county, vying to capture revenue-enhancing commercial and industrial activities. In the absence of a metropolitan-wide tax-sharing mechanism, such as that in the Minneapolis-St. Paul area, it is difficult to convince the "tax-poor" communities to forgo the potential revenues from commercial and industrial activity, and accept the much needed, but less tax-rewarding, residential development (Rothblatt and Garr, 1986). A key reason for the scramble in Santa Clara County's helter-skelter land market was the aggressive tax-seeking program of annexation pursued by San Jose. Between 1950 and 1980, it engulfed 140 square miles, thus increasing its total area to 157 square miles. A substantial portion of this turf was brought into the city by means of extending fingers of city land to outlying tracts deemed ripe for development. One of these corridors was no less than three miles in length and a mere roadway in width. This situation was viewed with alarm, not only by proponents of rational growth, but by other local interests as well. As a result, existing municipalities, such as Santa Clara and Sunnyvale, moved to consolidate their geopolitical holdings, while seven other localities, experiencing a sufficient sense of community, tempered by a reluctance to become swallowed up by San Jose, moved to implement a policy of incorporation.

Sixth, as relatively young communities with highly mobile and culturally diverse populations consisting of many new settlers, areas such as Silicon Valley may not have the broad social cohesion necessary for long-term collective activity. Partly for this reason, it has been difficult to raise funds to support social and cultural institutions despite the relative affluence of the San Jose area (Larimer, 1987).

Seventh, as one of the highest cost-of-living areas in the nation, Silicon Valley is under increasing pressure to relocate much of its low-wage manufacturing activities to less costly regions in the

Table 4-3

**Fiscal Comparison of Full Service Cities in Santa Clara County:
1985-86 Fiscal Year**

<u>City</u>	<u>Population</u>	<u>Property and Sales Tax Revenue Per Capita</u>
Palo Alto	56,831	\$306.0
Santa Clara	90,274	303.4
Mountain View	62,160	252.0
Sunnyvale	114,334	241.4
San Jose	717,312	125.7

Sources: San Jose, 1987, *Horizon 2000: 1987 Special Review of the General Plan*, San Jose, California.

United States and abroad (Hall and Markusen, 1985; Saxenian, 1985; Gordon and Kimball, 1986). For example, in 1975, there were 501,600 jobs in Santa Clara County and 411,500 housing units (Rothblatt, 1982). During the 1975-85 period, about 318,000 new jobs were created while only 74,850 new homes were constructed in the county (Association of Bay Area Governments, 1987). This gap between the number of jobs generated and the number of housing units supplied has created an enormous shortage of housing in Silicon Valley that affects people at every economic level, particularly low- and moderate-income families. Typically, San Jose families had to pay less than 20 percent of their income for housing in 1970; nearly 50 percent of their income was needed in 1987, because salaries have generally not increased as rapidly as inflationary housing costs. By the late 1980s, Santa Clara County became the fourth-most-expensive metropolitan housing rental market in the United States (McLoed, 1987). Unfortunately, this jobs/housing imbalance is expected to worsen in the decades ahead, impacting the social, environmental, and economic functioning of this metropolitan community (Association of Bay Area Governments, 1987; Rothblatt and Garr, 1986; Brady, 1989).

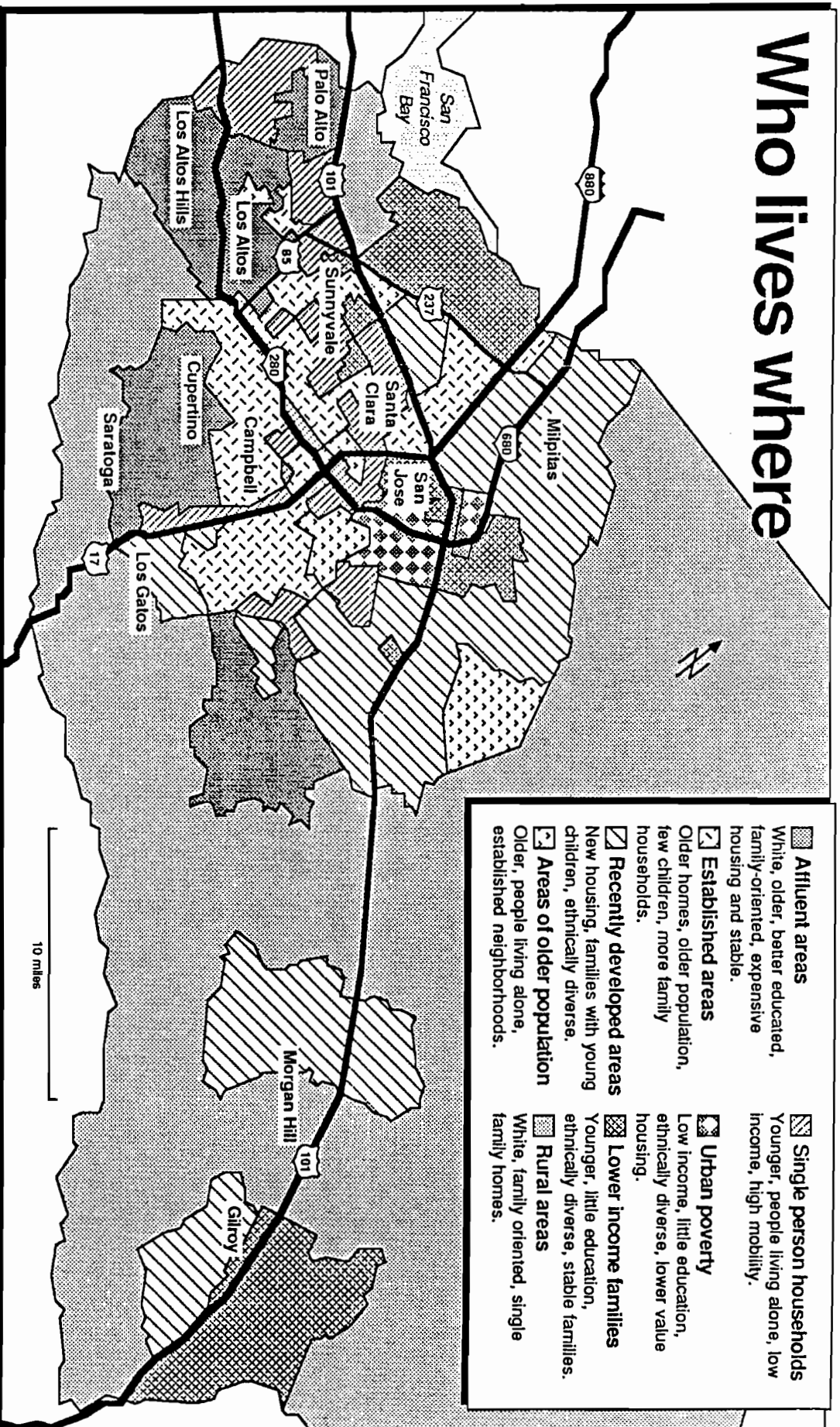
Finally, the bifurcated labor force characteristic of high-tech areas is split between the affluent white male professional and managerial staff, and low-wage, predominantly female, ethnic production workers (Saxenian, 1985). This pattern is spatially manifested by the increasingly socially separated residential areas in Silicon Valley (see Figure 4-4) (United Way of Santa Clara County, 1987). When we consider that in Santa Clara County the high school dropout rate for Hispanic youth approached 50 percent in 1985 (Santa Clara County Board of Education, 1986), and that low-income minority workers hold many of the entry-level production jobs at jeopardy due to global competition, a disturbing picture emerges of widening economic disparities and growing social instability (Larimer, 1987).

Thus, while the San Jose area's robust economy has generated many economic benefits for the population as a whole, not all residents have shared in the prosperity. For example, even though Santa Clara County had a lower 1988 unemployment rate than both the state and the nation, the unemployment rate for Hispanics was almost twice as high as for whites; and while the county ranked first in 1988 median household effective buying income among all US metropolitan areas, there were a significant number of families, especially from minority groups, living below the poverty level (United Way of Santa Clara County, 1989). As the non-white minority population increased from 29 to 38 percent of the county's population during 1980-90 and is expected to approach 50 percent by 2005 (Santa Clara County Advance Planning Office, 1988), issues concerning the distribution of economic opportunities will continue to grow in importance, not only for the disadvantaged, but also for the social and economic well-being of the entire metropolitan community.

Figure 4-4

Pattern of Social Residential Areas in Santa Clara County: 1987

Sources: United Way of Santa Clara County. 1987. *Santa Clara County Area Analysis Projections: 1990-2000*. Santa Clara, California.



METROPOLITAN RESPONSE TO EMERGING PROBLEMS

In response to these mounting problems, several collective efforts were undertaken in the San Jose area. As early as 1954, the Santa Clara County Inter-City Council (ICC) and the Board of Supervisors considered approaches to countywide problems. The ICC, an informal group composed of officials from each of the cities and the county, began work on a metropolitan-wide traffic plan in 1957. By 1967, it had spawned the Planning Policy Committee (PPC)— a new regional institution composed of elected and planning officials from each of the governmental units in the county to examine county-planning issues. The PPC was largely responsible for the Urban Development/Open Space Plan adopted by Santa Clara County in 1973. This plan described the rapid growth in the Santa Clara Valley which contributed to "scattered, uncontrolled urbanization," and contained county policies specifically aimed at preserving open space resources and at establishing urban development policies to guide future growth. Yet during the 1970s, urban areas continued to expand while agricultural-bearing acreage declined by more than 50 percent in the San Jose metropolitan area.

Strategies and Tactics

In 1976, the Intergovernmental Council (IGC) was established to supersede the PPC with a broader mandate to study and deal with regional issues. This metropolitan-wide organization, representing the cities and the county, sponsored several important studies, such as Living With Our Limits (Santa Clara County Industry Housing Management Task Force, 1979) which represented the first public-private comprehensive study of the growth issues in the region. While direct results from this study were not immediately apparent, it had long-term significance for three reasons: it raised the level of awareness in the county about serious environmental and social problems, such as the jobs/housing imbalance; it recommended public controls to guide the timing, location, and quality of industrial development; and it helped set the stage for future public-private regional activities like the mediating efforts of the private-sector organization, the Santa Clara County Manufacturing Group, in the 1980s. During the 1985-86 period, IGC was also instrumental in developing a model hazardous waste materials ordinance to assist the communities in Silicon Valley in coping with the newly discovered problems of the toxic wastes associated with high technology (Morell, 1986).

Due to land use and transit concerns, metropolitan transportation planning also began to emerge in the early 1970s in Santa Clara County, which resulted in establishing a County Transit District with a fleet of 516 buses servicing the metropolitan area (Rothblatt, 1982). However, it was not until 1976, when the Bay Area's land use and transportation agencies, the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), began to collaborate to develop a comprehensive transportation plan for the San Jose metropolitan area, *Santa Clara Valley Corridor Evaluation*, that the issue was taken seriously throughout the county.

Not only did the Bay Area-wide planning institutions raise the level of transportation planning consciousness in the San Jose metropolitan area, but they also managed to have their regional transportation planning proposals accepted, with minor revisions in 1979, by the diverse communities and interests comprising Santa Clara County (Rothblatt, 1982). This effort, which involved extensive inter-regional mediation, eventually led to the Guadeloupe Corridor light-rail line, presently under construction; the 1984 passage of Measure A, a half-cent county sales tax which is expected to generate nearly one billion dollars to improve several major highways in the region; and the county's comprehensive regional Transportation 2000 study, begun in 1984.

Yet, despite the long-term utility of general-purpose regional institutions in Santa Clara County, such as IGC and ABAG, land use and transportation problems in the area continue to worsen and significantly threaten the future economic viability and quality of life in Silicon Valley (Demoro, 1987; Dowall, 1984; Santa Clara County Transportation Agency, 1986). The responsible institutions fail to cooperate and act like their counterparts in other areas— they are voluntary representative councils of government with very limited power to directly implement broad region-wide development policies, since they are only advisory in nature. At best, these institutions could only be partially effective, as their boundaries do not even encompass most of the areas surrounding Santa Clara County (e.g., San Benito, Monterey, and Santa Cruz counties). Yet these regional institutions deserve support because they raise the level of regional consciousness through their studies and related activities; they foster communication among many local jurisdictions, and they could provide the basis for regional government in the long run. However, they cannot be realistically relied upon to deal effectively and comprehensively with the pressing transportation, housing, and environmental problems facing the San Jose area in the near future, because of the unwillingness of the diverse public and private interests to accept "top-down" regional planning and authority, as traditionally practiced.

Planning Regional Government

Clearly, alternatives to regional government are needed for dealing with metropolitan problems in the San Jose area, as well as in much of urban America. The most promising alternatives for metropolitan conflict resolution seem to be the methods of environmental mediation introduced by non-profit organizations during the past decade (Forum on the Community and the Environment, 1980; Rothblatt, 1982; McDowell, 1984; Susskind and McCreary, 1985; Forester, 1987). Indeed, most regional planning achievements in Silicon Valley are the result of such methods, conducted by organizations which Philippe Schmitter (1987) calls "new intermediaries"—new institutional arrangements which mediate between markets and government, and which foster cooperation among actors through bargaining and compromise.

Given the dispersed political structure of American metropolitan areas, these approaches attempt, through the use of neutral facilitators or mediators, to reach a "diplomatic" rather than an

authoritative resolution of regional problems to the satisfaction of the various interests concerned with each issue.

It may also be possible to have a regional planning institution, such as a Council of Governments, act as a new intermediary for clearly bounded issues (Kramer, 1983; Moore, 1983). As was shown in the surface transportation case in the San Jose area, the Bay Area regional planning agencies of ABAG and MTC performed this important metropolis-wide, conflict-resolution task exceedingly well (Rothblatt, 1982). For example, they helped contending interests in Santa Clara County to agree on needed improvements, such as the 20-mile-long Guadeloupe Corridor light-rail line presently being completed. In addition, almost all the regional actors, recently interviewed, expressed a strong desire to increase the role of regional planning agencies in resolving area-wide problems—despite economy drives on local government in the post-Proposition 13 era (Rothblatt, 1989). Indeed, as studies in other parts of the nation suggest, these economy drives may actually encourage local governments to seek the economies of coordination and scale that regional institutions can provide. Since regional planning agencies exist in almost every American metropolitan area, they could be used to quickly provide supportive institutional settings for establishing multiple advocacy processes.

It is even feasible to have a new intermediation process conducted by some of the actors (private as well as public) involved with a particular issue. While not as desirable, with regard to fairness, as using neutral facilitators, recent actor-initiated efforts have been extremely effective in dealing with several pressing problems in Silicon Valley. This seems to be the case when economically or politically powerful actors can use their influence on others to encourage agreement on selective issues of particular importance. Outstanding examples of this activity are the Santa Clara Valley Manufacturing Group, which represents the major high-technology firms in the region, and Santa Clara County's Transportation Agency and Planning Department.

The Santa Clara County Manufacturing Group (SCCMG) was established in 1978 by leading corporations in the area (such as Hewlett Packard, IBM, and Lockheed) to deal with the emerging regional problems threatening the economic viability of Silicon Valley. The SCCMG was established "to retain and enhance the attractiveness of renowned Santa Clara Valley as a place to live and locate employment." Its approach has been to work with local governments in identifying and generating solutions for specific problems, similar to the growing use of public-private corporatist partnerships employed in many urban areas in industrialized nations (Portnoy and Perkins, 1985; Cawson, 1986; Goldstein and Bergman, 1986). By carefully focusing attention on specific issues and through developing a close rapport with both governmental units and major firms, the SCCMG has successfully been able to play an honest broker or mediating role in dealing with some of the most vexing problems in Silicon Valley. For example, after years of research and negotiations, the SCCMG has been successfully acting as a new intermediary and has facilitated the agreement of

five cities (Milpitas, Mountain View, Palo Alto, San Jose, and Sunnyvale) and Santa Clara County (originally formalized in May 1986) in accepting a comprehensive land use and transportation plan for the development of a large area in the heart of Silicon Valley (called the Golden Triangle). The plan limits industrial development, provides for up to 65,000 new housing units near existing employment centers, increases public transportation options, and should lessen some of the traffic congestion in Silicon Valley's heartland (Santa Clara County Golden Triangle Task Force, 1987). As former San Jose Mayor Tom McEnery said, when approving this important sub-regional agreement, "You've seen history made today" (Robison and Cassidy, 1986).

During the same period, an even broader approach to the transportation problems of Silicon Valley has been undertaken by the Santa Clara County Transportation Agency in formulating the Transportation 2000 plan. This planning process was established in 1984 to generate a broad consensus about a comprehensive transportation plan to meet the county's needs in Year 2000.

Accordingly, a public opinion survey on community transportation preferences was conducted, and representatives of all fifteen cities in the county, regional institutions, and over two dozen organizations participated in the decision-making process. This was accomplished through the use of numerous workshops and public hearings that enabled the participants to create a mutually acceptable plan for expanded highway, transit, and ridesharing, as well as related implementation actions and financing (Santa Clara County Transportation Agency, 1985b). The plan is currently being finalized and should provide a workable intermediate-range framework for providing adequate transportation facilities in the San Jose area (Santa Clara County Transportation Agency, 1988).

On another front, the Santa Clara County Planning Department has helped negotiate acceptance by the county and two south county cities (Morgan Hill and Gilroy) of a comprehensive plan for their portion of the metropolitan area (Santa Clara County Planning Department, 1986). This innovative plan also contains the possibility of revenue sharing among these jurisdictions, so as to avoid the negative effects of competition for industrial development tax dollars (Carruthers and Petrolla, 1986). Thus, the south county, which should experience substantial development pressure because of its open land availability, is becoming more able to manage growth for the benefit of the metropolitan community.

While these actor-initiated intermediation efforts are making important individual contributions to the well being of the region, they still need to be balanced against a comprehensive long-term shared image of where Silicon Valley is and where it should be going. In the absence of such an image, and the cooperative means to attain it, the economy and the quality of life will be irreparably damaged for all the residents in the region. Indeed, some observers believe that time is running out, and that if major changes are not made soon to significantly improve the economic, social, and physical environment in Silicon Valley, the 1990s will witness major declines in the viability of the San Jose area (Brady, 1989).

For this reason, renewed efforts are being made to establish a regional planning institution with the ability to guide the long-term development of the San Jose area. With both public and private support, the Golden Triangle Task Force is trying to broaden its representation to include all the cities in Santa Clara County, and be transformed into such an institution. In fact, in January 1990, the Task Force adopted a transportation demand ordinance which will attempt to guide the entire county in controlling the excessive use of automobile commutation (Miller, 1990).

SAN JOSE'S DOWNTOWN: A CHANGING IMAGE

Like many "sunbelt" cities which developed, primarily since World War II, in a highly dispersed automobile-oriented manner, San Jose had an underdeveloped downtown. That is, it still had the remnants of a Central Business District (CBD) for a city of 95,000 in 1950, even though it had grown nearly sixfold during the 1950-1980 period. In fact, the downtown had actually declined in viability, as all major retail stores (such as J.C. Penneys and Sears) were pulled away to outlying shopping centers in the late 1950s.

In addition, during the 1960s other economic activities, as well as the civic center (containing city hall and county office buildings), were relocated away from the downtown through urban renewal clearance projects. Much of the land that had been cleared by urban renewal remained vacant for more than a decade.

Consequently, during most of the 1960s and 1970s the historic role of San Jose's downtown as Santa Clara County's commercial and trade center had declined greatly (Muller, 1988). At the same time, several new outlying shopping centers emerged, such as Eastridge in south San Jose and the Valley Fair in Santa Clara. With their major department stores, numerous shops, plazas, restaurants, theaters, and office buildings, these centers began to assume most of the traditional economic, cultural, and social functions of a downtown. That is, the new outlying shopping centers became more of a downtown than the existing downtown.

Unlike most other major cities in the United States, San Jose lies within a metropolitan region dominated by three major central cities. Before San Jose grew to prominence, the other two major cities, San Francisco and Oakland, had already established themselves as centers for cultural and community services expected of important cities, such as great museums, symphonies, and major athletic teams. Consequently, San Jose had to contend with two formidable competitors for markets to support cultural and related activities, normally found in the downtown of one major city. This factor, combined with the CBD underdevelopment, made downtown investment relatively unattractive until the late 1970s.

Then, in the 1980s, under the leadership of its young and dynamic Mayor Tom McEnery, San Jose began to transform its downtown from a depressed underdeveloped area to a vibrant

center for business and the arts, for the entire region. Articulated in the city's general plan, *Horizon 2000* (1987), the city's downtown revitalization strategy is:

. . . a public investment program, acting as a catalyst to create a prominent and attractive Downtown, will draw new investment, residents, business visitors and life to the center city . . .

Specific strategy elements allow for a mix of land uses which contribute to a pedestrian-oriented "24-hour" downtown. These land uses include high-rise offices, restaurants, entertainment centers, speciality retail stores, cultural and convention facilities, and high-density residential uses. Central to these developments is the preservation of historic structures, and the provision of public open space areas. A multi-faceted downtown transportation system is designed to serve the area.

With the public and private investment pumped into the downtown, many of the city's objectives are being realized. By January 1990, the following major downtown public projects were completed or were nearing completion:

- San Jose Convention Center (425,000 square feet), which makes a significant contribution to a "24-hour" downtown by supporting restaurant, hotel, entertainment, and other retail uses.
- Downtown Transit Mall, which reinforces and enhances Downtown's role as the hub of the County's public transit network through the interface of the Guadeloupe Corridor Light Rail line and the bus system.
- Fairmont Hotel, and Hotels East and West, which will add over 1,000 luxury rooms.
- Silicon Valley Financial Center Office Tower and Retail Pavilion, with a 140,000-square-foot open-air mall.
- Technology Center of Silicon Valley High-Tech Museum.
- Guadeloupe River Bypass Channel, which will divert flood waters around the natural river channel, thereby reserving the natural channel for park purposes and making it an integral part of Downtown life.
- Route 87 Downtown Bypass Freeway, which relieves Downtown streets of rush-hour traffic congestion originating in the Silicon Valley industrial areas, as well as significantly improves the accessibility to Downtown employment and attractions from the regional highway network.

Other projects in which public funds are being jointly invested with private funds include:

- Children's Discovery Museum.
- Indoor sports and entertainment arena, with a 20,000-seat capacity (recently increased in size to accommodate a new National Hockey League team).

In addition, the recent increase in downtown office building construction has been dramatic. From 1980-88, downtown office floor space more than doubled to 5 million square feet (San Jose Metropolitan Chamber of Commerce, 1990). A recent study of downtown office use found that downtown accessibility and image were key reasons given by firms choosing to locate in the CBD

(Kroll and Amenta, 1989). Along with traditional legal and financial services, downtown is increasingly becoming a specialized service-center to Silicon Valley. Indeed, almost 80 percent of downtown firms were found to have high-tech clients. Accordingly, the study concludes:

Downtown San Jose is likely to continue to grow in its distinct role as an important business services center to the Silicon Valley economy, linking Silicon Valley to national and international business interests.

Concurrent with all the economic and physical development of downtown has been a flowering of cultural activities. Recent and increasing community support for the arts has transformed San Jose's Repertory Theatre, Light Opera Company, Symphony Orchestra, Ballet, and expanding Art Museum into major cultural resources, not only for Silicon Valley, but for the entire Bay Area and beyond. The San Jose area has even been trying to lure the San Francisco Giants to the South Bay. And while there has been some criticism that redevelopment funds supporting downtown activity have been used at the expense of social neighborhood needs, such as affordable housing, the city is trying to respond by spending 20 percent of all redevelopment revenue on low- and moderate-cost housing (which is required by law) (Tessler, 1988). In addition, since 1987, the city has been developing an "Enterprise Zone," which includes all of the downtown core plus much of the low-income areas in east San Jose. The Zone, which is the only one established by the State of California in the Bay Area, provides local and state tax incentives for expanding business activities, especially for firms hiring persons from job-training programs (San Jose, 1987).

Thus, while much remains to be done, the city's downtown renaissance is clearly moving San Jose toward greater prominence and toward becoming the capital of Silicon Valley.

CONCLUDING THOUGHTS

San Jose's transformation from the center of an agricultural area to an amorphous bedroom community and then to a major city has been both exhilarating and painful. Gone are the exquisite hills laden with blossoming orchards and the tranquility of a bucolic agricultural region, and gone is the social stability of small-town life. Instead, a new city is emerging based largely on high-technology and related activities. As such, it has become physically a large sprawling city, socially and politically complex, and economically tied to the vicissitudes of rapidly changing global markets. Along with the problems of rapid growth associated with newer sunbelt cities, it has also generated many of the opportunities and contradictions of older American cities— great wealth as well as poverty, crime, congestion, pollution, and increasing economic disparities between the affluent and disadvantaged.

Still half-formed, this emerging colossus of the South Bay is searching for its new identity. As things stand now, the former capital of the Valley of Hearts Delight is the capital of Silicon Valley, one of the most important places in the world. The future of San Jose will therefore be inextricably

tied to the fortunes of Silicon Valley and its expanding role as a major center for technological innovation and trade on the Pacific Rim. Thus, San Jose's destiny will be tied to the region's ability to reinvigorate itself economically, as well as its collective capacity to resolve difficult environmental and social problems associated with high-technology. In the end, San Jose's future success may have as much to do with improving old regional policies as creating new global technologies.

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CHAPTER 5

SAN DIEGO: THE NEXT HIGH-AMENITY PACIFIC RIM WORLD CITY

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INTRODUCTION

San Diego is a paradigm of the process of Pacific Rim urban transformation. San Diego, long a "sleepy Navy town" in the southwestern corner of the United States, has undergone a radical transformation which is leading it to become the southeast focus of the Pacific Rim. The changes, both structurally and functionally, that occurred in the last two decades have forged greater interdependencies and interconnectivities, responding to an information/communication-intensive era.

This chapter will focus on the economy of San Diego. It will stress the decentralization of production activities, the agglomeration of information/human resource/knowledge activities in San Diego, and the increasing interdependencies (both labor flows and capital flows) with other cities. As with the rest of the Rim, the connections between cities, rather than nations, are driving the new dynamism and interdependence of San Diego with other Pacific cities.

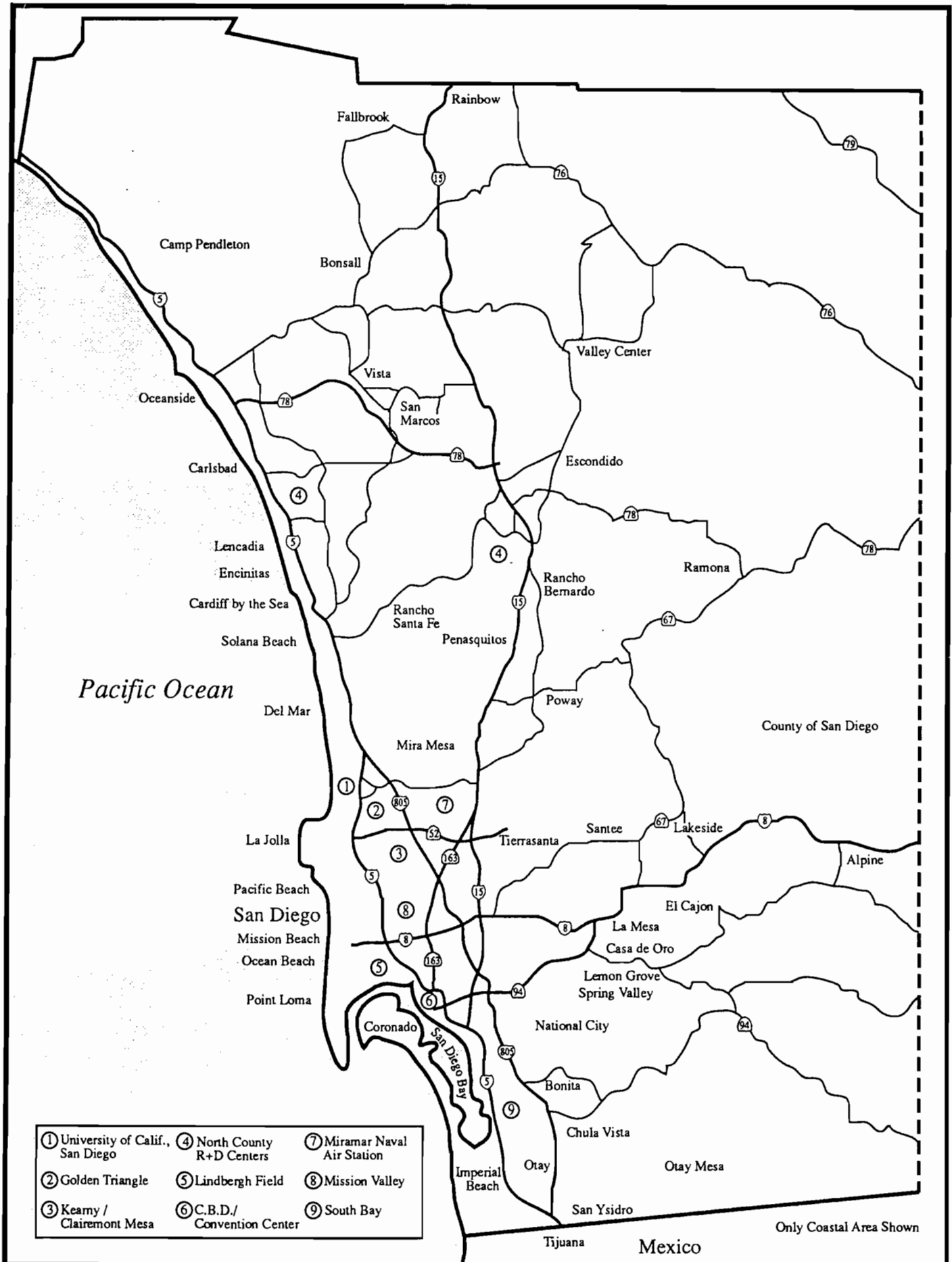
San Diego is situated in the extreme southwest corner of the United States (Figure 5-1), surrounded by considerably well-defined boundaries. The Mexican border touches its southern edge, and the Pacific Ocean is its western border. The eastern border is a mountain range which towers to over 6,000 feet, and the northern border is the vast open spaces of Camp Pendleton (one of the US Marine Corps' most important training centers). Stretching for 17 miles along the coast, the northern boundary is particularly treasured by San Diegans because it provides a barrier that leaves it well separated from the Los Angeles Basin. San Diego is blessed with a natural deep-water harbor, and the coastline comprises 70 miles of public beaches. The landscape and land forms are as diverse as the population. The coastline rises rapidly to a series of mesas which are interspersed with deeply gorged canyons. The mesas give way to a number of inland valleys which are covered with grass and chaparral. Further east are the mountains and deserts which separate San Diego County from the rest of the nation.

HISTORICAL FOCUS

San Diego's climate can be described as temperate. Mild winters and warm summers are characterized by temperatures which rarely dip below the mid-40s and rarely reach 100 degrees. Inland temperatures see more variation, but are still within the temperate range. The tourist's

Figure 5-1

San Diego Region



view of San Diego as a wonderland blessed with numerous sun-filled days, moderated by cooling ocean breezes, is well within the reality experienced by county residents.

San Diego Bay was discovered in 1542 by Juan Rodriguez Cabrillo, but the area wasn't settled until 1769 by a group led by Captain Gaspar de Portola and Father Junipero Serra. The first economic activity in San Diego was agricultural production on mission lands. During the area's twenty-five years of Mexican rule, which began in 1812, whaling was the only other economic activity of any importance to develop during the mid-1800s; and it had subsided by about 1870. Real growth began in 1885 when the California Southern Railroad began service to the area. Tourism, which today accounts for more than \$3.1 billion a year poured into the local economy, began with the building of the Hotel del Coronado in 1888 (Wells Fargo Bank, 1990).

San Diego began its development as a defense industry center early in the 1900s, when two groups, which would become natural allies in the field, located here. The fledgling aircraft industry was lured by the climatic advantages that allowed open-air storage, reduced heating costs, and almost year-round test flights. In 1920, the United States Navy, attracted by the excellent harbor and temperate climate, built a destroyer base on San Diego Bay. These two groups would soon dominate San Diego economically. Lindbergh's Spirit of St. Louis was one of the early aircraft built here by Ryan Aeronautical Company. Ryan continued to grow after this success and is still an important San Diego company. Another early leader in the area's aircraft industry was Consolidated Aircraft. In 1953, Convair was merged with General Dynamics Electric Boat of Groton, Connecticut, to form a separate division of what is now one of the nation's largest defense contractors (Pryde, 1984).

Because San Diego's environmental quality has been jealously guarded, diversification within the economy has been skewed toward a few major fields: manufacturing, agriculture, research and development, and high technology.

World War II gave a significant boost to the military-based economy; manufacturing employment nearly doubled during the war years, with most of the increase going to the aircraft industry. Many servicemen who passed through San Diego during World War II returned once the war was over, enhancing the city's skilled labor force.

The San Diego economy of the 1990s is well structured and has an enviable record of growth. As has just been noted, it is a young economy, with most of the growth occurring after World War II. The 1990 gross regional product should reach \$61 billion, roughly the size of the state of Oregon, and has been growing at an inflation adjusted rate of 4.9 percent for the past ten years (Table 5-1). The image of San Diego as merely a military town has faded slowly. The service-sector has now overtaken the government-sector as the driving force in the local economy. Service-sector jobs, which account for over 26 percent of local employment, have been growing at an average annual rate of 7.2 percent. There has been a considerable diversification within the local economy,

Table 5-1

**San Diego County: 2010
Key Economic Indicators**

	<u>1977</u>	<u>1987</u>	<u>Forecast Annual Percent Change*</u>		
			<u>2010</u>	<u>1977-1987</u>	<u>1987-2010</u>
Gross Regional Product Billions — 1987	25.6	41.5	102.0	4.9%	4.0%
Population July 1 Thousands	1,711	2,288	3,625	2.9%	2.0%
Per Capita Income 1987 \$	\$13,700	\$16,800	\$26,200	2.1%	1.9%
Employed Thousands	602	1,011	2,325	5.3%	3.7%

* Compounded

Sources: California Department of Finance, California Employment Development Department,
U.S. Department of Commerce GRP Estimates, Forecasts:
Economic Division, Wells Fargo Bank

and the economic base is centered on the industries of the future: the high-tech industry, biotechnology, scientific and medical research, and education.

The defense industry, a driving force behind the economy for decades, is for the most part making a shift from government to commercial contracts without the mass upheavals being experienced by other defense industry cities. Even in the face of large military cutbacks, it is unlikely that San Diego will suffer drastically. It is not targeted for base closures. Already the home of the western world's largest Navy port, it may even grow in importance as ships now home-ported in other cities are shifted to San Diego.

NEW ECONOMIC SECTORS OF GROWTH

Population growth over the last two decades has been rapid. Once just a small city, San Diego is now the nation's sixth largest, and San Diego County is the nation's fifth-most-populated county (Tables 5-2a, 5-2b). The county is projected to be the second-fastest-growing county in the United States over the next 20 years, surpassed only by Los Angeles County. Although the population distribution is 589 persons per square mile, the bulk of the population is distributed along the coast; 80 percent of county residents reside within 15 miles of the ocean. The population in San Diego is very slightly younger than the national average. In the under-35 age group, men outnumber women. In the over-40 age group, women outnumber men. The group in between is almost evenly distributed.

Gross Regional Product and Employment

Ranked internationally, San Diego's Gross Regional Product would place it 35th in the world, larger than the nations of Pakistan, Israel, and Portugal, and on a par with Hong Kong's. Per capita income, expected to approach \$21,500 by 1991, is projected to grow by 2 percent a year through 2010. The GRP is projected to realize a growth rate of 4 percent a year during the same time period.

Employment in San Diego is led by the service and wholesale/retail sectors. Together they represent just over 50 percent of county employment. The San Diego Association of Governments (SANDAG), the county's regional planning agency, expects that over the next twenty years the transportation, retailing, and business service sectors will see the greatest growth in employment. Manufacturing jobs have recently declined somewhat, due in large part to cutbacks in defense and commercial high-tech work. The decline, however, at 1.1 percent, is less than that nationwide. Unemployment in San Diego has declined steadily since 1982, and was less than 4 percent at the end of the 1980s. That rate is expected to rise slightly over the next several years but should still be significantly less than the national average (Babilot, 1990).

San Diego ranks as one of the top five agricultural counties in the US. Since the beginning of the 1980s, agribusiness in San Diego has seen a significant shift in emphasis, away from field and vegetable crops, and toward high-value-added products. Nursery products and cut flowers have

Table 5-2a, 5-2b

**U.S. Cities Rank By Population
1970-1990**

<u>1970</u>	<u>1980</u>	<u>1990</u>
1 New York	1 New York	1 New York
2 Chicago	2 Chicago	2 Chicago
3 Los Angeles	3 Los Angeles	3 Chicago
4 Philadelphia	4 Philadelphia	4 Houston
5 Detroit	5 Houston	5 Philadelphia
14 San Diego	8 San Diego	6 San Diego

**U.S. Counties Rank By Population
1970-1990**

<u>1970</u>	<u>1980</u>	<u>1990</u>
1 New York	1 New York	1 New York
2 Chicago	2 Chicago	2 Los Angeles
3 Los Angeles	3 Los Angeles	3 Chicago
4 Philadelphia	4 Philadelphia	4 Houston
5 Detroit	5 Houston	5 San Diego
15 San Diego	8 San Diego	

Sources: US Bureau of the Census;
California Department of Finance

seen an increase, and now account for half of the county's agricultural production. Tree crops, particularly avocados, citrus, and kiwi fruit, account for another 30 percent of production. Despite stiff competition from foreign agriculture, production in 1989 increased by 24 percent. At almost three quarters of a billion dollars in production, agriculture is the fourth-largest component in San Diego's GRP (Gross Regional Product) (Babilot, 1990).

Construction and Foreign Investment

Although the number of building permits issued in San Diego has declined recently in all types of construction, the valuation on the commercial, industrial, and institutional activity increased slightly, and employment in the construction industry increased more than 10 percent between 1988 and 1989. Within the nonresidential construction sector, the Pacific Rim influence has had a significant impact. The Japanese, in particular, see San Diego as a prime site for investment (Figure 5-2). As a result, the skyline of downtown San Diego is being reshaped by Japanese money. Almost all the new mega-structures in town are Japanese. The 30-story, \$132 million Emerald Shapery Center is being constructed by Tokyu, a Japanese builder. The 34-story, \$34 million Great American Plaza is partnered by Shimizu Land Corporation. Japanese-owned Union Bank financed construction of the 34-story Symphony Towers, a \$143.5 million project. The 27-story Marriott Suites hotel, adjacent to the Symphony Towers, was recently purchased by a subsidiary of Dia Kensetsu. Japan's largest construction company, Shimizu, helped build the La Jolla Hyatt Regency, and is now involved in the building of the Great American Towers (Kenneth Leventhal Co.).

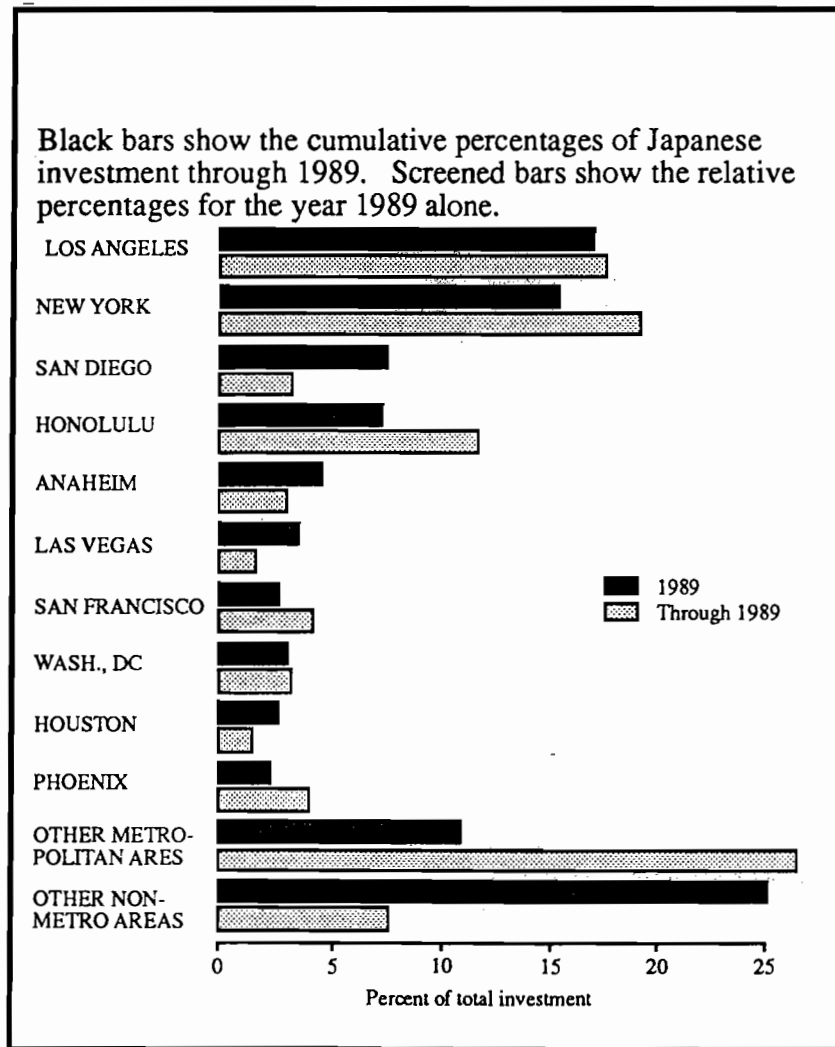
Residential construction has declined significantly from 1989 but is still strong, particularly when compared with most of the rest of the nation. Large planned developments in the northern communities of Vista and Oceanside are still opening new phases, and a number of large developments are in the initial stages of planning or construction in the South Bay and eastern portions of the county. Slow-growth initiatives have been enacted in the majority of the county's cities, and new home construction in the future will probably be greatest in the unincorporated areas of the county. Runaway home prices, averaging 30 percent increases in some communities of San Diego per year, have leveled off some and housing prices are expected to increase at a slower rate, but still far exceed the US national trend.

Research, Research and Development, and High Technology

San Diego is the home of some the world's most prestigious research centers. It has become one of the leading centers for biotechnology. The Salk Institute is one of the world's largest independent biological research centers. Located on the cliffs in La Jolla, it is near the University of California at San Diego (UCSD). Founded by Jonas Salk, it is currently involved in a number of important research projects, including the hunt for a cure for AIDS. Nearby is the headquarters of Scripps Clinic and Research Foundation, the world's largest private biomedical research institute. Founded

Figure 5-2

Japanese Investment Diversification by Metropolitan Area



Source: Kenneth Leventhal and Co.

by philanthropist Ellen Browning Scripps in 1924, it has a staff comprised of about 500 M.D.s and Ph.D.s. The Cray supercomputer is at the heart of much of the research that is done here. Scripps operates on the philosophy that the future of medicine and health care will be based on biotechnology, with diagnosis and treatment becoming more mathematical. Computers will be indispensable to diagnosis. Scripps Hospital, also founded in 1924 by Ellen Browning Scripps, and located in what is known as the Golden Triangle, will merge with Scripps Clinic and Research by the end of 1990 to become one giant biomedical entity (Vincent, 1990).

UCSD, the brain child of Dr. Roger Revelle, is located next to Scripps Clinic and Research Foundation. It has a faculty which boasts five Nobel Laureates, and has a greater percentage of graduates enrolling in medical schools and Ph.D. programs than any other public university in the nation. UCSD is the center of San Diego's biotech industry, ranking fifth in the nation in the amount of federal research funding.

Cal Tech operates the Palomar Observatory, located on Palomar Mountain, some 35 miles northeast of the city of San Diego. The Hale telescope is housed here, and San Diego has implemented special night-lighting ordinances to help insure that it maintains its status as one of the most productive optical telescopes in the world.

In addition to the major research centers, there are some 70 commercial biotech firms in the county that employ about 2,700 people. Among the premier firms included in this number are Hybritech (owned by pharmaceutical giant Eli Lilly) and GenProbe (owned by Chuagai Pharmaceutical Company of Japan). The Naval Ocean Systems Center, located on Point Loma, was developed during World War II, as the War Research Laboratory. Today it is a major electronic and undersea warfare center for the Navy.

Manufacturing

Manufacturing ranks as the top component of San Diego's GRP. While it accounts for just under 14 percent of total employment in the 1980s, this total number of jobs has actually increased, as has the number of companies involved in manufacturing. The latest estimate puts the number of manufacturing firms at about 4,000. San Diego exports over \$2 billion in goods (Table 5-3). About one-third of the companies engage in international trade. San Diego leads the nation in the production of electronic components and information electronics, the ocean sciences, and biotechnology-biomedicine. Merchandise produced by these firms tends to be high-value, physically small items which are usually shipped by plane or truck. In the high-tech manufacturing field, San Diego ranks fourth in the nation. Only Orange County, Silicon Valley, and the Boston area outrank San Diego. The bulk of the region's high-tech manufacturing and research and development are carried out in northern areas of San Diego County. Biotechnology, electronics, and aerospace-related manufacturing dominate the products lines. Japanese giants such as Sony, Kyocera, Fujitsu, and Sanyo have

Table 5-3**Total San Diego Exports 1989 (in \$Thousands)**

			<u>Percent</u>
Oceania			
Australia	32,392		
New Zealand	8,288		
Total		40,680	1.7
Latin America			
Mexico	753,728		
All Others	97,488		
Total		851,176	35.6
Asia			
Hong Kong	105,160		
Singapore	52,600		
Japan	206,716		
Indonesia	40,648		
South Korea	48,520		
Taiwan	75,724		
Philippines	64,692		
China	45,684		
All Others	39,920		
Total		679,628	28.4
Canada	179,724	179,724	3.3
Europe	613,612	613,612	25.7
All Others	124,408	124,408	5.2
Grand Total	2,389,229		

Sources: San Diego Chamber of Commerce; U.S. Bureau of the Census;
US Department of Commerce, San Diego Office.

established plants either in the north county area or atop Kearny Mesa, an industrial triangle in the north central portion of the city of San Diego.

Military/Defense

While San Diego's support of the military complex is partially based in the conservative political climate, the economic rewards are enormous. The military is the second-largest component in San Diego's GRP. More than 100 ships are home-ported in San Diego, and active duty personnel number more than 144,000, up dramatically from 1980. A good number of these personnel bring families with them, adding additional dollars to the local economy.

While most of the rest of the nation will see local military installations shrink, the opposite is true for San Diego. As other California naval stations are closed or down-sized, San Diego is likely to be on the receiving end of much of the shifting of personnel and aircraft carriers, particularly the nuclear-powered aircraft carriers based at Alameda Naval Air Station. San Diego has made it clear that, unlike many other cities, it welcomes the additional personnel and carrier groups.

In addition to direct military spending, San Diego is home to some of the country's defense giants. General Dynamics houses several divisions of its company in San Diego, including Convair, Space Systems, and Western Data Center. Locally based Rohr Industries has a major manufacturing facility in the South Bay area. Cubic Corporation, McDonnell Douglas, Science Applications International Corporation, and Teledyne Ryan are also among the major defense contractors with facilities in San Diego.

Transportation

Transportation's contribution to San Diego's economy is small but important. Lindbergh Field, San Diego's international airport, provides passenger and freight service to a full slate of destinations across the United States, as well as a number of international destinations.

The situation with Lindbergh Field, however, is causing major controversy within the region. Residential communities which are situated under the flightpaths of arriving and departing aircraft are increasingly stressed by the high noise levels, and numerous law suits have been filed. Some compromises have been made in the hours of operation and types of aircraft allowed, but dissatisfaction is still high. In addition, the Port District, which owns the airport, has run out of room to expand. There is only one runway, and, at 9,000 feet, is at least 1,000 feet short of optimal size. All the possible locations offer at least one major obstacle. Miramar Naval Air Station (see Figure 5-1), located just northeast of Lindbergh Field, is one site coveted by the region's leading proponents for a new airport. The Navy, however, is unwilling to give up the site, which is a major training location for TOPGUN fighter pilots, and is equally unwilling to share the space. The top locational prospect is Otay Mesa. Sharing a "twin port" with Mexico is also a strong possibility.

New-car registration in San Diego shows a definite Pacific Rim influence. Six out of ten new cars registered in the county are of foreign origin. Of those, 83 percent are from a Pacific Rim country. Pacific Rim countries account for just over 49 percent of the total new cars sold in the county, with Japan being the major source of vehicles (Table 5-4).

Tourism and Conventions

San Diego has long been a favorite destination for tourists. Year-round mild weather, world-famous attractions like the San Diego Zoo, the Wild Animal Park, Sea World, and the relatively uncrowded beaches have long provided the region with the sorts of amenities required by visitors. Over the last two decades, San Diego has also developed a number of international-class sporting events which draw in additional visitors. Golf tournaments, tennis classics, yachting events, horse racing, and hydroplane racing draw numbers of visitors who are then drawn to other local attractions. Increasingly, these visitors are from Pacific Rim countries. The America's Cup is scheduled for May 1992, and is expected to add \$500 million to 41 billion to the local economy (*San Diego Union*, November 3, 1991).

The Pacific Rim tourist is usually better educated and with a higher income than the average visitor. They spend more money, and expect to enjoy the best amenities the region has to offer. They are avid consumers who snap up quality merchandise at an amazing rate, rarely blinking at prices that might put off the less sophisticated traveler. Locally, tour companies are now available which specialize in helping the Pacific Rim visitors enjoy their American visit on their terms. It is not unusual to see local shopping malls invaded by busloads of Pacific Rim tourists, armed with calculators, portable phones, and thick orientation notebooks prepared by the tour company. The notebooks extensively cover every facet of what the tourist can expect, down to the smallest detail. Armed with these essentials, the Pacific Rim tour group descends on the mall like a swarm of locusts, snapping up merchandise at a phenomenal rate, then departing just as quickly, leaving behind amazed and bemused bystanders and happy shopkeepers.

The convention arm of the tourist industry is expected to take a quantum leap during the decade of the nineties. A new waterfront convention center opened in late 1989. With a 245,000-sq.-ft. exhibit hall, a 40,000-sq.-ft. ballroom, and 200,000 sq.ft. of meeting space, it has already received hundreds of bookings and will give the tourist industry a major boost. The center has been so successful that expansion plans are already underway (SANDAG, 1990b).

THE MAQUILADORA INDUSTRY: SAN DIEGO'S PACIFIC RIM CONNECTION SOUTH TO ASIA

When the bracero program ended in 1965, the Mexican government instituted the maquiladora, or in-bond/assembly plant industry. Foreign firms, particularly from Japan and Korea, have

Table 5-4
New Car Registrations By Type: San Diego

<u>Automobile Maker/ Model</u>	<u>1989</u>	<u>Percent of Total</u>	<u>1988</u>	<u>Percent of Total</u>
TOTAL PASSENGER CARS	88,852	100.0	93,222	100.0
DOMESTIC TOTAL	36,127	40.7	38,045	40.8
<i>General Motors Corp.</i>	<i>15,012</i>	<i>16.9</i>	<i>16,809</i>	<i>18.0</i>
Chevrolet	5,230	5.9	6,491	7.0
Buick	3,153	3.5	3,249	3.5
Oldsmobile	2,348	2.6	2,620	2.8
Pontiac	2,157	2.4	2,429	2.6
Cadillac	2,124	2.4	2,020	2.2
<i>Ford Motor Company</i>	<i>16,760</i>	<i>18.9</i>	<i>16,397</i>	<i>17.6</i>
Ford	13,609	15.3	13,328	14.3
Mercury	2,020	2.3	2,067	2.2
Lincoln	1,131	1.3	1,002	1.1
<i>Chrysler Corp.</i>	<i>4,133</i>	<i>4.7</i>	<i>4,616</i>	<i>5.0</i>
Dodge	1,433	1.6	1,897	2.0
Chrysler	1,287	1.4	1,627	1.7
Plymouth	1,413	1.6	1,092	1.2
American Motors/Eagle	222	0.3	223	0.2
IMPORTED TOTAL	52,725	59.3	55,177	59.2
Toyota	9,377	10.6	9,206	9.9
Nissan	8,693	9.8	8,663	9.3
Honda	8,562	9.6	7,562	8.1
Hyundai	4,163	4.7	7,056	7.6
Volkswagen	2,495	2.8	3,366	3.6
Mazda	3,265	3.7	3,329	3.6
Acura	2,360	2.7	1,670	1.8
Mitsubishi	2,085	2.3	1,551	1.7
Volvo	1,498	1.7	1,620	1.7
Mercedes-Benz	1,373	1.5	1,447	1.6
Subaru	1,342	1.5	1,583	1.7
BMW	1,224	1.4	1,397	1.5
Chevrolet Spectrum/Storm*	897	1.0	531	0.6
Chevrolet Sprint/Geo Metro*	849	1.0	630	0.7
Dodge Colt/Vista*	601	0.7	1,190	1.3
Ford Festiva*	582	0.7	758	0.8
Daihatsu	401	0.5	320	0.3
Mercury Tracer*	345	0.4	511	0.5
Jaguar	342	0.4	348	0.4
Suzuki	278	0.3	22	0.0
Plymouth Colt/Vista*	275	0.3	328	0.3
Porsche	236	0.3	283	0.3
Saab	230	0.3	234	0.3
Lexus	207	0.3	N.A.	N.A.
Pontiac Lemans*	204	0.2	365	0.4
Other	589	0.7	1,207	1.3

Source: R.L. Polk and Co. Motor Statistical Division

Note: Percentage may not add to 100% rounding.

N.A. Not introduced into the U.S. market until 1987.

*Domestic Sponsored Import

been encouraged to invest in Mexico through a series of incentives, ranging from a loosening of the laws requiring Mexican majority ownership of industry, to the right to import component parts duty-free. The plan has been eminently successful, with Tijuana/San Diego being the leader in the number of maquiladora industries established. There are more than 500 Mexican corporations now established in the Tijuana region; half of them have parent companies located in San Diego County. A number of others have Japanese parent companies. Among the leading firms located in the Tijuana region are General Motors, Mattel, Kodak, Honeywell, Casio, and Sanyo. This section of the chapter is devoted to a detailed description of how the industry works (Grunwald, 1985; Sultzer, 1988).

Establishing a Maquiladora

In order to establish a maquiladora, the parent company must first incorporate within Mexico, then register with eight different government agencies, including tax and social security agencies, the health ministry, the Chamber of Industry, programming and budget, the National Registry of Foreign Investments, and customs (Figure 5-3). An application must be made to the Ministry of Commerce and Industrial Development, for approval to become part of the Maquila Export Program. Once these steps have been completed, the new corporation can receive a permit from the customs office for duty-free temporary importation of machinery and raw materials needed for operation of the plant.

The maquiladora industry has a number of general regulations that must be followed, although there are some exceptions to a number of these rules. There must be at least five shareholders in the corporation, with a non-Mexican firm being allowed to own 96 percent of the stock. (Under normal circumstances a non-Mexican ownership interest in a company cannot exceed 49 percent.) In some cases the new corporation can petition for the right to hold 100-percent ownership. In-bond/assembly and auto plants qualify under this rule. In-bond refers to plants which are required to place a bond with the Mexican government, insuring that the products they produce will be exported.

A number of industries are reserved for government operation only. In general, public utilities, transportation, petroleum-hydrocarbon-petrochemical production, refining, and distribution, mining, nuclear energy, and the broadcast industries are open only to the government, or to wholly owned Mexican companies.

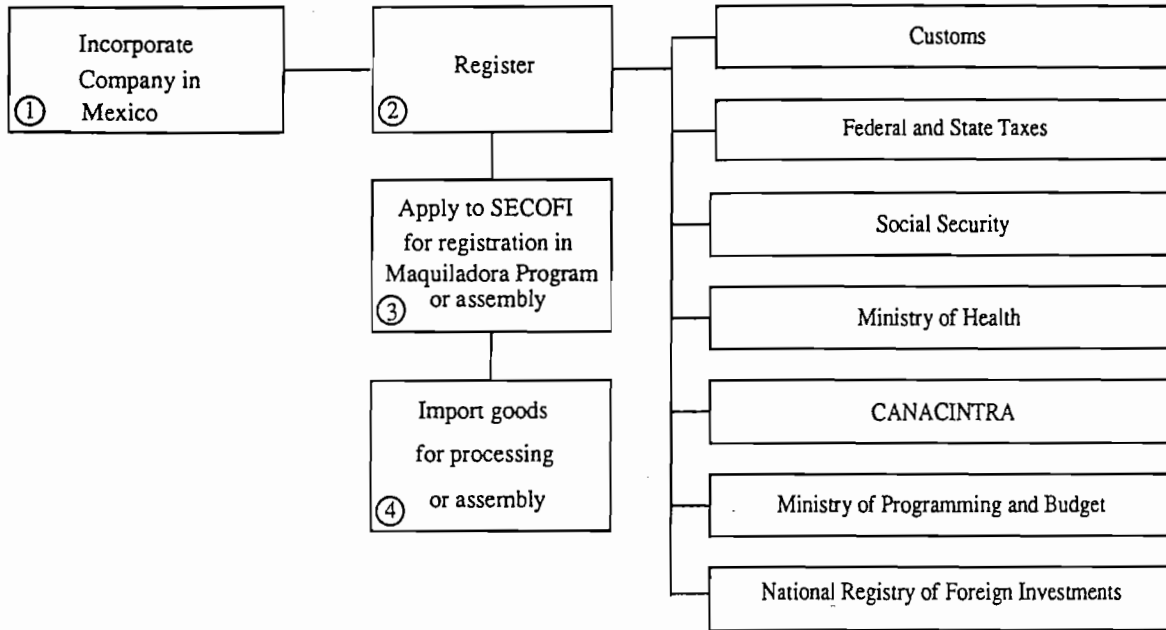
Ninety percent of the technical and administrative personnel in a Maquiladora must be Mexican, and all of the production workers must be Mexican.

Types and Locations of Maquiladora Programs

The maquiladora industry has three types of programs in operation in the Tijuana area.

Figure 5-3

Registration of a Maquiladora Plant



Source: Sultzer, 1988.

The *100 Percent Ownership* program allows a foreign corporation to wholly own the corporation it sets up in Tijuana. Top management in the plant is generally made up of parent-company personnel, with Mexican personnel holding mid-level management positions. The Mexican element in management allows the company to successfully maneuver its way through the maze of regulations unique to the host country, as well as to negotiate building leases and contracts for leasehold improvements on the building, hiring of workers, and establishment of accounts which will allow the company to operate within the Mexican economy. Total liability remains with the Mexican arm of the corporation. Twin-plant operations are one type of 100-percent ownership.

The *Shelter* program allows specialized Mexican companies to accept capital equipment, technology, and component parts from a foreign company for assembly and exportation of the finished product. The Shelter company provides plant space, plant operation, and accountability to customs. In return, the foreign company is relieved of some of the burden of insuring that it does not violate legal and financial regulations. The Shelter company charges the foreign company an hourly rate which is based on labor and all overhead, including the administrative and consultative duties it carries out.

The *Subcontracting* program allows a Mexican company to import component parts and export the finished product back to the contracting company. The subcontracting company is paid on a price-per-piece basis. The major advantage for the foreign company is in having its product assembled at the lower labor rate provided by the subcontracting firm. This program enables foreign firms to market products which are much more competitive on the world market, without forcing them to invest substantial sums in setting up an entire production plant on foreign soil.

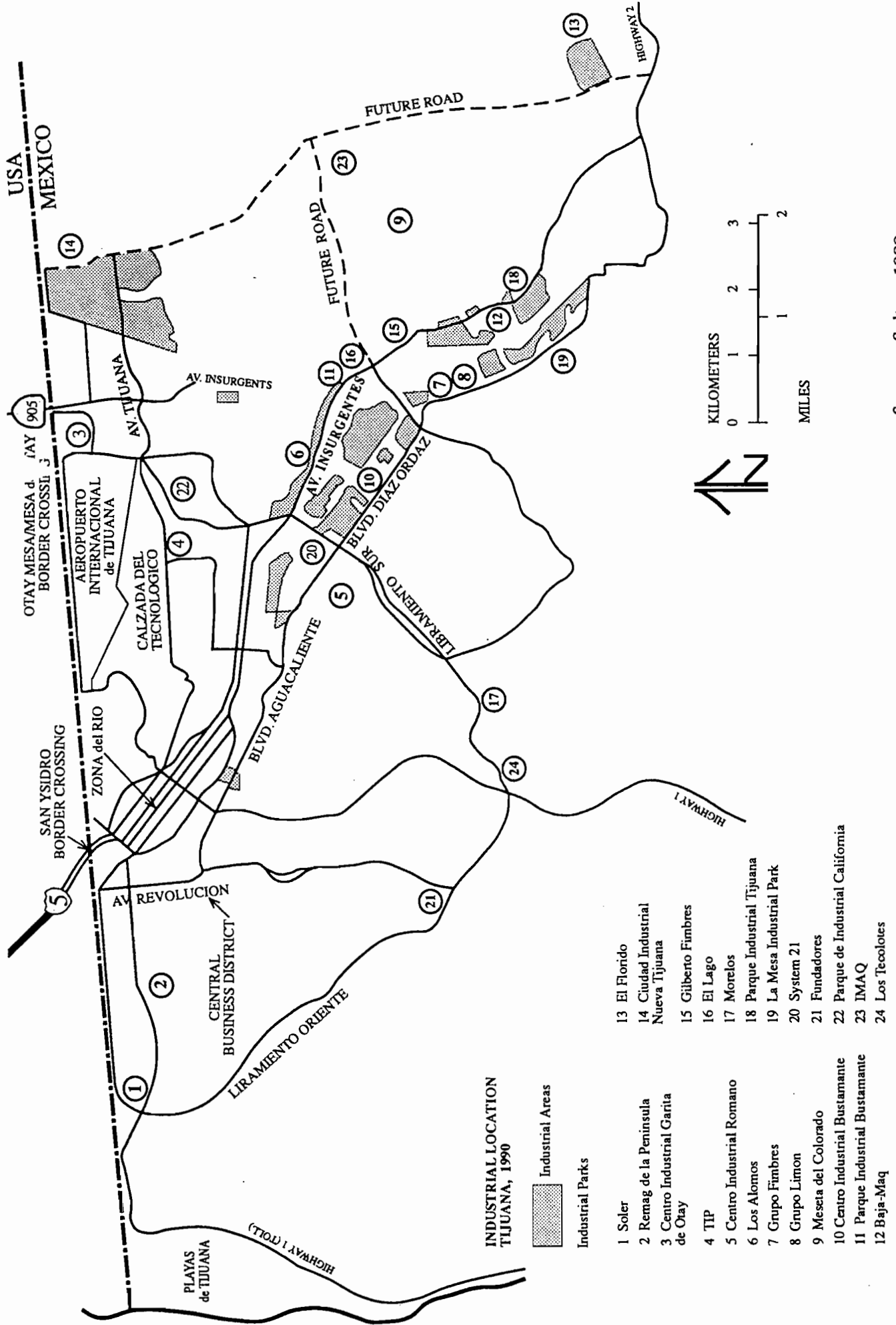
Because the entire state of Baja California Norte has been designated by the Mexican government as a free trade zone, the maquiladora plant can locate anywhere in Tijuana unless it is a health or environmental hazard. Tax credits, however, are given to those companies which set up operations within the areas zoned for industry, which has led to most firms being located in one of the industrial parks or within the commercial section of Tijuana (Figure 5-4). Smaller industries usually favor the commercial section, particularly along Avenida Insurgentes, and the Boulevard Diaz Ordaz. The larger industries are increasingly being located in the new industrial parks located along Avenida Insurgentes, or on Mesa de Otay, just across the border from San Diego's Otay Mesa industrial area.

The newer industrial parks offer all the amenities one would expect in any industrialized country. Office space, transit stops, day-care centers, an elementary school, shopping, and police and fire stations are not unusual. Housing is frequently found, and there are sometimes sports facilities and open space included.

Foreign firms can own the corporations they set up but they cannot own the land on which their plant is located. Instead, they purchased the rights to the land through long-term land trusts,

Figure 5-4

Industrial Location, Tijuana, 1990



Source: Sultzer, 1988.

generally 30 years in length. At the end of those 30 years, the corporation may sell the land to a Mexican individual or company, petition for renewal of the trust for up to another 30 years, or simply let the trust expire. Agricultural land cannot be purchased through land trusts.

Land may also be leased. Commercial property leases are restricted to 15 years and industrial property to 20 years.

Labor Supply and Wages

The labor supply in Tijuana is large and growing at a fast clip. The literacy rate averages over 90 percent and education is supported at all levels of society. Tijuana has both primary and secondary schools, as well as adult education programs, vocational and technical schools, a university, and a teachers' college. These factors enable the region to supply the maquiladora industry with an adequate labor force.

By United States standards, wages in Tijuana are extremely low. Even with a government-imposed minimum wage, the average wage supplies a worker in Tijuana with a daily sum in an amount equivalent to just a handful of American dollars. In spite of this, only 30 percent of Tijuana families are classified as low-income, in comparison to a 70 percent rate for the rest of Mexico.

Mexican law allows workers of any company with more than 20 employees to form a union. They may ask one of the three major unions to represent them, or they may form a union of their own. Union activity within Tijuana is low, and not all of the maquiladora plants have organized unions.

The Future of the Maquiladora Industry

There is little doubt that the maquiladora industry in Tijuana is going to continue to grow, and San Diego has an undeniable interest in seeing that it continues to be a success. The new US-Mexico treaty will increase the importance of this region to Pacific trade. As economic prosperity in Tijuana increases, there is a corresponding spillover into San Diego. A share of the wages earned by Tijuana's workers makes its way into the regional economy, as residents cross the border to purchase goods in San Diego stores, visit San Diego tourist attractions, and eat at San Diego food establishments (South, 1990; Stutz, 1992).

San Diego businesses benefit by their association with the maquiladora industry through lower wage rates, which makes products more competitive on the world market, and through the corresponding improvement in access to Mexican and Latin American markets. In addition, San Diego's connection with the rest of the Pacific Basin and the world is magnified by the Mexico Connection, as shown in Table 5-3.

There are increased employment opportunities for American workers because of the maquiladoras. Warehousing and distribution jobs increase, as do those in administration, product

finishing, transportation, and marketing. There is a companion increase in jobs due to the economic multiplier.

Even foreign companies that join the maquiladora industry provide San Diego with an economic boon. Hotels and food establishments, the transportation industry, and tool and equipment suppliers all benefit through purchases the foreign firms make in San Diego.

Given the benefits to all involved, there is little doubt that the governments of both Mexico and San Diego will continue to support the growth of the maquiladora industry.

TRANS-BORDER INTERNATIONAL COMMUTERS: THE MEXICAN CONNECTION II

The San Diego-Tijuana corridor represents the most heavily traveled border zone in the world. There are two points of entry between the two regions. One, at San Ysidro, within view of the Pacific Ocean, is the original crossing site, and consists of 24 traffic vehicle inspection lanes coming into the United States, and one pedestrian entry area. The second, at Otay Mesa, has only been open a few years, and will serve as the major point of crossing for business traffic in the maquiladora industry.

Although the Immigration and Naturalization Service collects data on border crossings, their aggregate estimates are crude at best, due in part to the mistrust which exists between the Service and the majority of Mexican citizens crossing the border. In June 1983, a survey was conducted at the San Ysidro border gate, among northbound travelers. A total of 1,077 border-crossers were surveyed, with the survey stratified by time of day, day of week, and mode of transportation. Figure 5-4 shows the location of the border survey just south of the border checkpoint on Interstate 5 in Tijuana near San Ysidro.

On a typical weekday, about 60,000 travelers use the San Ysidro checkpoint to cross into the United States. In this study, 50 percent of those interviewed claimed to be naturalized US citizens of Mexican descent, with residences in Mexico.

Trip flows from Tijuana to San Diego follow a similar pattern to those within the United States. The study indicated that four-fifths of the daily trips originate in Tijuana, from home (Table 5-5). About 40 percent of the tripmakers are daily commuters traveling to jobs within the San Diego region, 80 percent of whom make the crossing daily. Approximately 2 percent of the daily weekday trips are made by travelers attending school in San Diego (Stutz and Herzog, 1986).

Mexicans Shop in San Diego

One-fifth of the crossings are made for shopping purpose. Of those surveyed, over 60 percent cross over to shop at least once a week. A fourth of the respondents said they crossed several times a week. The economic contribution these commuters make has a significant impact on the local economy, particularly the retail trade located within several miles of the border. In some stores

Table 5-5

Trips From Tijuana To San Diego By Purpose

<i>Counts > 5 shown</i>	<u>Destination Purpose</u>								<u>Purpose at Origin Total</u>	
	<u>Home</u>	<u>Work</u>	<u>School</u>	<u>Recrea- tion</u>	<u>Shopping</u>	<u>Social</u>	<u>Personal Business</u>	<u>Other</u>	<u>Count</u>	<u>Percent</u>
ORIGINAL PURPOSE										
Home	8	378	18	30	213	90	78	40	857	79.6
Work	1	5	0	1	9	1	1	0	21	1.9
School	0	1	0	0	0	0	0	0	1	0.1
Recreation	15	0	0	1	1	0	2	0	20	1.9
Shopping	17	2	0	0	1	0	1	0	21	1.9
Social	76	45	1	1	2	1	2	1	129	12.0
Per. Bus.	6	2	0	0	0	0	1	0	9	0.8
Other	10	1	0	0	0	0	0	1	18	1.7
PURPOSE AT DESTINATION										
Count	133	434	19	32	226	92	47		N=1077	
Percent	12.3	40.3	1.8	3.0	21.0	8.5	4.4			100%

Source: Computed by Author from survey data

in Chula Vista and San Ysidro, 20 percent or more of total sales volume is due to cross-border shoppers. It is not unusual to find stores in these areas staffed by Spanish-speaking clerks, with signs in the stores in Spanish. Many of them accept pesos and advertise in Spanish. Advertising firms dedicated to the Spanish-language shoppers is an offshoot of this factor, and it is becoming a burgeoning business.

Food is the number one item purchased by cross-border shoppers, particularly those items which are either not available in Mexico or are in short supply. Milk, bread, and meat are the most-purchased food items. Clothing, household articles, major electrical appliances, and business purchases comprise the bulk of the remaining purchases.

Patterns of Employment

The majority of Mexican commuter workers fill jobs as manufacturing laborers, service workers, in construction, or as agricultural or outdoor garden maintenance workers (Table 5-6). Mexican commuters exhibit a greater degree of dispersion for work destination locations than for points of origin. Seventy-five percent of the workers from Tijuana had points of origin that were within five miles of the border port of entry they used. Destination sites for 75 percent of the commuter workers, however, were located in a zone which extended 16 miles from the international boundary (Stutz and Herzog, 1986).

The spatial patterns of work-trip destinations can generally be desegregated by type of employment. Clusters of work trips can be identified by location quotients in sectors generally given over to the categories of employment which employ large numbers of trans-border commuters, such as agriculture and landscaping, construction, low-tech manufacturing, hotel and other services, entertainment, and automobile repair.

San Diego is one of the nation's leading agricultural counties in terms of the aggregate economic value of its agricultural products. The cross-border commuters employed in this economic sector have produced a distinct spatial pattern of work-trip destinations. There are two major destination points, each with its own type of accompanying agricultural work. The south San Diego County area, where truck farming of commercial crops, mostly vegetables, is important, draws the greatest number of workers in this sector. The north county area, where the greatest number of new housing tracts are located, draws those engaged in landscape work. There is a high demand for both groups of workers throughout the year, due to the subtropical nature of San Diego's climate. Many of the workers in these jobs come from the agricultural areas of Mexico and make use of skills learned in an environment which closely replicates their own.

Mexican construction workers tend to be somewhat scattered in their destination patterns, but are noticeable on the urban fringe, where most new residential construction is taking place. Generally, these workers occupy the lower-paying jobs in the construction sector, working at laying

Table 5-6

**Location Quotients by Community
for Occupation Reported by Mexican Commuters**

Agriculture	Agriculture crops	<u>1</u>	25		San Ysidro	3.2
	All other agriculture	-	5		Imperial Beach	6.9
				35		
Construction	Construction trades	15	32		Otay Mesa	2.1
	Special construction	17	19		Claremont	2.7
	All other construction	-	7		El Cajon	3.3
					Pt. Loma	3.1
				50		
Manufacturing	Food can, veg. packing	20	9		Chula Vista	1.5
	Clothes manufacturer	23	17		CBD	1.6
	Metal shop	34	19		El Cajon	1.5
	Electrical fabrication	36	13			
	All other manufacture	-	19			
				70		
Transport/ Utilities	All transportation	-	4			
	Utilities	49	6		CBD	4.5
				10		
Retail	Restaurant	58	24		Mission Valley	2.3
	All other retail	59	11		La Mesa	3.1
				40		
Services	Hotel/motel	70	43		Mission Valley	1.5 (hotel)
	Personal	72	14		Coronado	1.6 (hotel, home)
	Auto repair	75	47		La Jolla	1.6 (home, garden)
	Private household	88	25		Chula Vista	1.5 (auto)
	Gardener	89	50		National City	1.6 (auto)
	All other services	-	17			
				<u>196</u>		
				434		

Source: Computed by the author from survey data (N=1077)

Note: Location Quotient $LQ_{ij} = (X_{ij} / E_j) / (EX_{ij} / EEX_{ij})$ where i is a San Diego community and j is an occupation sector, e.g., manufacturing.

bricks, building foundations, and pouring concrete. These are non-union jobs, often performed at minimum wage. Again, there is a parallel between the types of construction jobs Mexican commuters hold and the culture they come from. Mexico is a largely deforested country, and construction material usually consists of adobe, concrete, and cinder block. Mexican workers have brought their skills with them and find jobs in construction which make use of those skills.

Mexican border commuters employed in the manufacturing sector usually occupy the lowest-paying jobs. Cannery work, laundry work, clothing manufacturing, and manual assembly are characteristic of the types of jobs the commuters fill. The work environment is often the least desirable that the manufacturing sector offers. Exposure to chemicals, dirt, noise, danger, and unhealthy conditions are often a part of these jobs, which are concentrated in the South Bay areas of National City and Chula Vista, the CBD, and the east county city of El Cajon.

The entertainment and hotel service sector employs a large number of the border commuter workers. San Diego is a popular tourist destination and annually hosts 1,500 conventions. Many of the approximately 50,000 hotel rooms in the city are cleaned by Mexican women who cross the border daily. This group of workers is clustered in two major zones, both of which are prime locations for the region's hotel business. One cluster is located along San Diego Bay at Pt. Loma and Coronado. The second cluster is located in Mission Valley (Stutz and Herzog, 1986).

The South Bay areas of Chula Vista, National City, and south South San Diego exhibit a clustering of Mexican commuter automobile repair workers. Tijuana has long been a major market for used automobiles, accepted as trade-ins by San Diego new-car dealers. Low-cost engine repair and auto body shops sprang up within Tijuana in response to the repair needs produced by the Mexican buyers of these cars, and San Diegans were drawn to Tijuana in order to take advantage of these low rates. This, in turn, produced a spillover effect into San Diego's South Bay area. The north side of the border caters mostly to residents of metropolitan San Diego, giving the South Bay area a concentration of auto repair and auto body businesses that take advantage of both the availability of American customers, and the supply of cheap labor produced by the trans-border auto workers.

SAN DIEGO'S URBAN FORM

As noted in the first chapter, Pacific Rim cities can be characterized as having sets of interacting and independent nodes, rather than dominant and subordinate nodes common to European cities. In the Pacific Rim city, the suburbs play an important, if not dominant, role in the urban economy. An important characteristic of this is that global transactions come to take precedence over local transactions, as telecommunications and other non-spatially determined interconnections outgrow inter-community relationships. San Diego is no exception. In addition, offices and industrial places move to the suburbs so as to be closer to employees' homes. In this case conven-

ience has been a primary factor in the development of San Diego's infrastructure. Suburbanization of jobs has also allowed for a reduction in urban congestion, while allowing for the benefits of a large urban economy. San Diego's urban form matches the Pacific Rim model set forth.

Figure 5-5 identifies where major concentrations of trip-ends occur throughout the San Diego region by census tract (SANDAG, 1990a). Notice the widely scattered pattern along an east-west axis, which comprises the Interstate 8 corridor, and a north-south axis which comprises the I-15 corridor. Some census tracts receive over 100,000 trips per day. (Trip-ends refer to the destination or origin points of all trips made on an average weekday.) Areas with high concentrations are the locations of employment, shopping, and recreational centers. The downtown area is the heaviest concentration inside and adjacent to the Bay. Within a region where 1.3 million people work, only 80,000 are employed in downtown San Diego, which is less than 7 percent. Major concentrations east of downtown along the I-8 corridor include shopping malls, satellite business centers, and industrial parks.

The region is forecast to gain 550,000 jobs by 2010, bringing total civilian employment to 1.5 million. Sixty percent of the increase will occur north of I-8, in suburban areas outside the old central city. East and south-county job concentrations are also substantial, making San Diego even more decentralized and suburbanized.

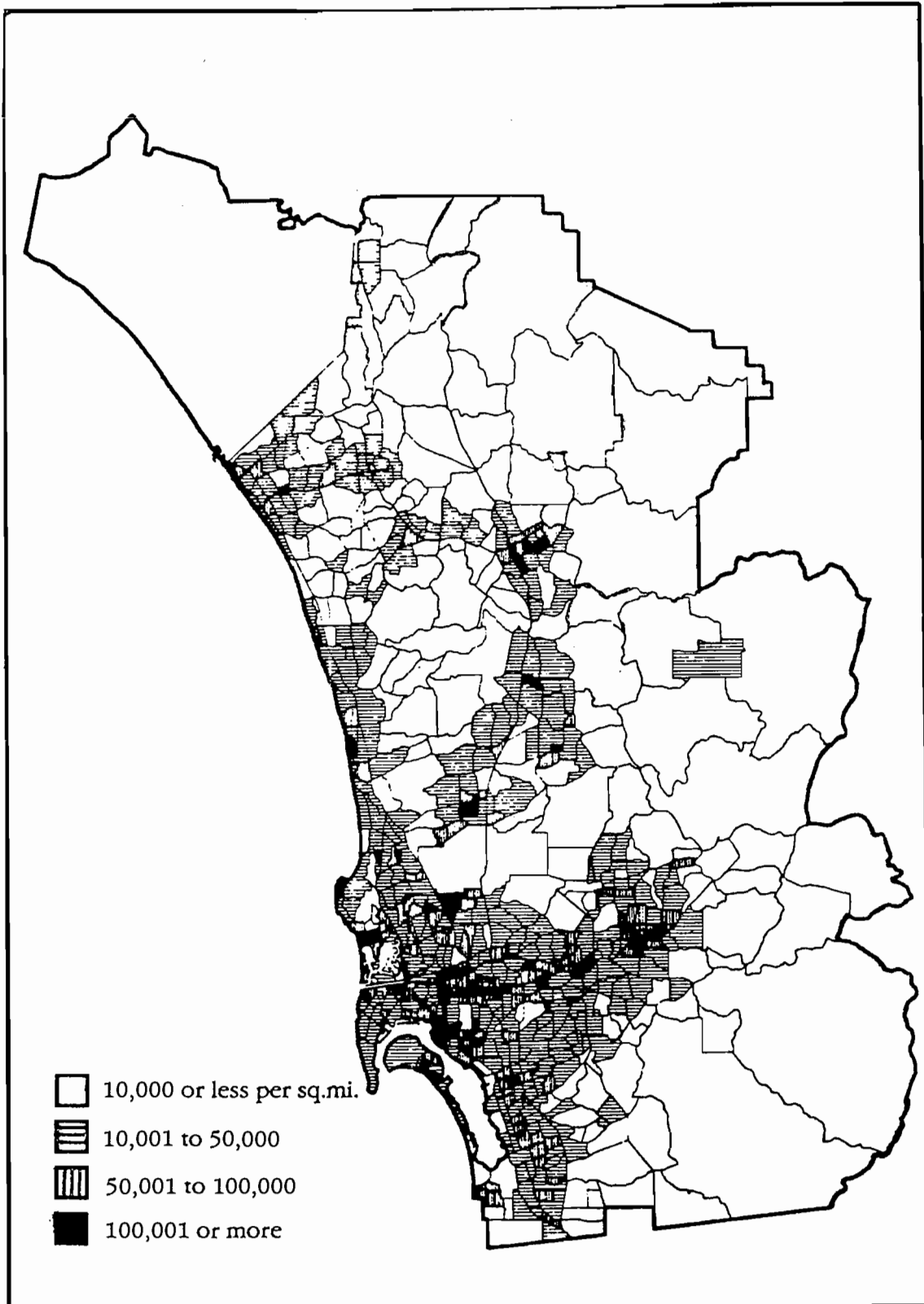
The structure of the Pacific Rim city is quite possibly that of the 21st century. Its economic structure is basically international, with an emphasis on telecommunications and information. While its decentralized structure allows for independent economic relationships, it retains enough urban qualities to allow innovation and new technologies to flourish.

CONCLUSION

The long-term prognosis for the San Diego economy is favorable. A slowdown would seem inevitable, given the state of the nation's economy, the volatility of the oil industry, and the massive cutbacks in government spending that appear to be the wave of the future. San Diego, however, is in a more favorable position than much of the rest of the nation. The economy is skewed toward the information and high-tech industries of the future; there is a strong basis for a good deal of Pacific Rim interaction; and investors from outside the region will continue to pour money into the area. San Diego will continue to reap the benefits of the military presence, and, because of its many amenities, labor—in both the skilled and unskilled sectors—should remain in plentiful supply. During the worst of times San Diego should be able to maintain its economy on an even keel. During the best of times the region will thrive. With either scenario, Pacific Rim ties will accelerate.

Figure 5-5

Trip-End Densities, 1986 Household Survey



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CHAPTER 6

SEATTLE: COPING WITH SUCCESS

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INTRODUCTION

Seattle is fast emerging as a prototypical example of the new city of the Pacific Rim. Seattle's evolving spatial structure and the attendant concerns of its citizens are setting a new agenda for planning. Foremost is figuring out "how to grow gracefully." It is a regional concern that stems from the need to accommodate a rapidly growing and increasingly affluent population, while maintaining, if not enhancing, the quality of the built and natural environment.

In the past decade the metropolitan statistical area, composed of King and Snohomish counties, has witnessed marked population growth, adding just over a quarter of a million people between 1980 and 1988 (an increase of 16 percent). Immigration, economic growth, rapid development, and high living standards are the order of the day.

Growth and affluence have brought considerable changes in the spatial, economic, and social structure of the city. The area, whose economic fortunes remain closely tied to the leviathan of Boeing, is slowly diversifying as production, service provision, consumption, and trade are all increasingly interconnected with and centered around the Pacific Rim.

However, the picture is not all rosy. Growth has brought to planners and public administrators in Seattle, in common with their colleagues in California, a host of thorny problems associated with traffic congestion, environmental degradation, housing inflation, and infrastructure provision. These all generate competing claims on the public purse and available land.

Seattle's planning agenda is driven by very rapid growth superimposed upon the emerging spatial organization of production, consumption, investment, and reproduction in an affluent and modern American metropolis. With a relatively young, highly educated, and concerned population, a lively debate is raging as the region gropes towards a proactive role for land use planning that caters to the needs of a major new city of the Pacific Rim city and at the same time preserves the unique environment and quality of life in the Pacific Northwest.

In this chapter we present Seattle as an emerging example of a new city of the Pacific Rim. We outline those aspects of the metropolis: economy, spatial structure, and Pacific Rim interdependencies, which generally corroborate the editors' arguments in this book. We continue in the latter half of the chapter to shed some light on Seattle. In particular, we focus on the problem of accommodating growth, while at the same time preserving the existing environment and quality of life. For Seattle (as in other Pacific Rim-oriented American cities), these are preeminent concerns of politicians, citizens, and businessmen alike (Elway Research, 1989; Richardson, 1989).

We suggest that one common feature of the new city of the Pacific Rim is a growth-management problem stemming from the demands upon the environment and the infrastructure arising from economic and physical growth. These demands, we argue, are outpacing our institutional capability to plan for the new metropolis. It may be necessary to restructure our planning systems and reappraise our programs so that the practitioner can craft policy applicable to our new spatial structure.

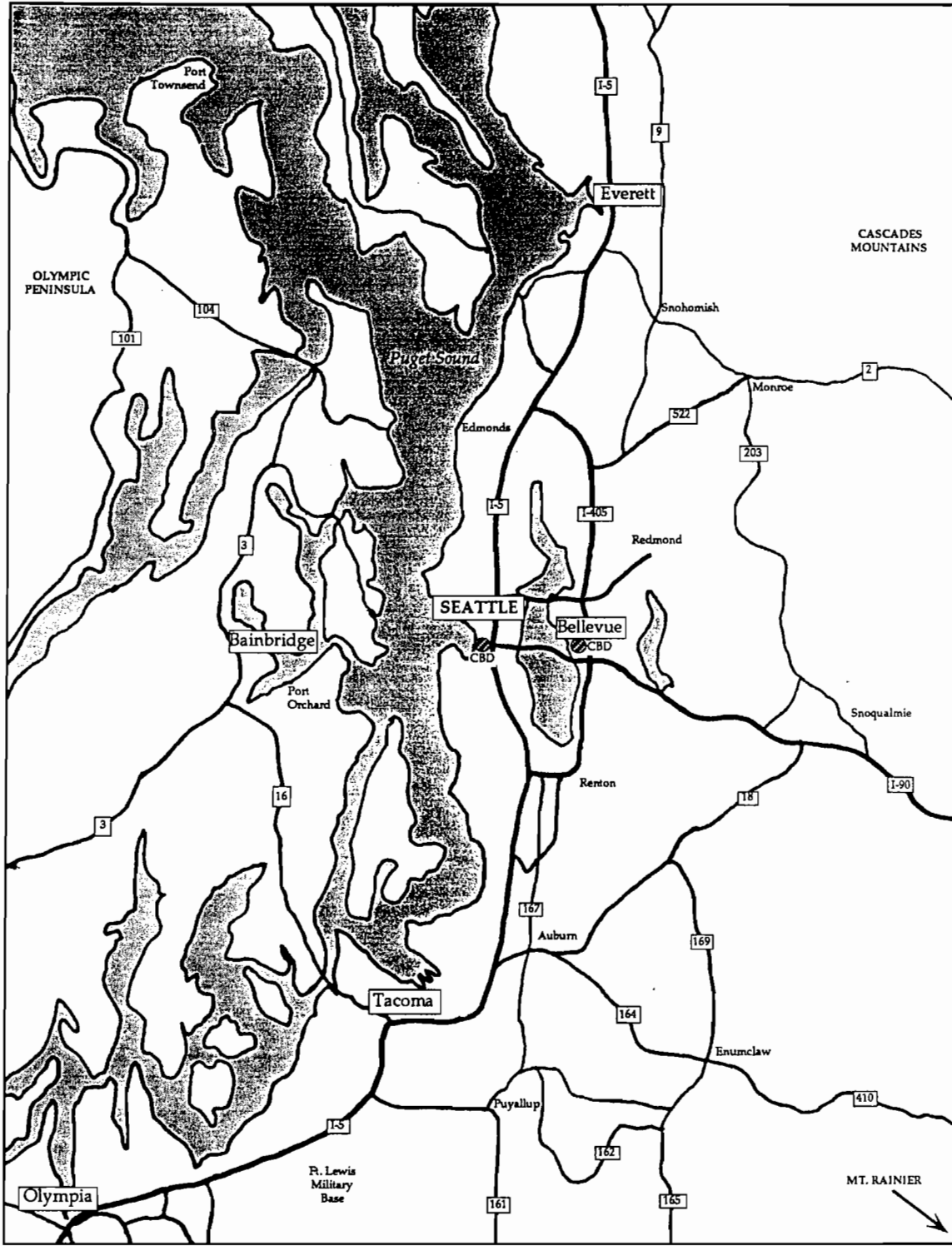
AN OVERVIEW OF THE METROPOLITAN AREA

Located in the northwest corner of the lower forty-eight states, some 150 miles south of Vancouver, British Columbia, Seattle is one of the most stunningly situated cities in North America. Surrounded by water with the Olympic mountains to the west, the Cascades to the east, Mountain Rainier rising to over 14,000 feet to the south, and three National Parks a short drive away, the natural environment is an inescapable part of everyday life.

The area encompassed by Metropolitan Seattle includes the city of Bellevue, 10 miles to the east, and Everett to the north (see map, Figure 6-1). This area is one of the fastest-growing large metropolitan areas in the United States; by 1988 the population was estimated at around 1.86 million, an increase of some 16 percent since 1980 (Bureau of the Census, 1989). According to the U.S. Department of Commerce, the population is projected to continue expanding to 2.16 million by the year 2000. The success of Boeing, headquartered in Seattle and the city's largest employer, has spearheaded growth in the region (Conway et al., 1989). Boeing currently has an \$85 billion backlog of commercial orders and enough firm orders to operate at full capacity well into the 1990s. As the home of Microsoft, Quicksoft, and the Aldus Corporations, the region is establishing a strategic complex of software houses.

As international trade patterns change and America's economic center of gravity moves westward, geography plays an increasingly important role in Seattle's economic vitality and concomitant growth. Seattle is ideally situated to benefit from the increasing trade between the United States and Pacific Rim nations, both for imports and exports. Seattle's location allows prime access to the region's rich agricultural, forestry, and fishery resources— the principal commodities

Figure 6-1
Metropolitan Seattle



exported through the Port of Seattle. This geographical advantage is reinforced by the variety and quality of the region's varied physical geography, which contributes to a high quality of life.

By most criteria of concern to Americans (cost of living, jobs, crime, recreation, education, health care, and climate), Seattle is a highly desirable place to live: Seattle was ranked the number one livable American metropolis in 1989 in the Places Rated Almanac (Boyer and Saugeau, 1989). In support of this ranking, Boyer and Saugeau (1989) maintain that for the "quality and variety of man-made and natural recreation amenities Seattle is hard to beat." This is only one of several high rankings Seattle has received for its livability.

Livability

When weighed against the negative attributes of many American cities, such as high living costs, congestion, and air pollution, Seattle presently offers a relatively low-cost living environment and high environmental amenity, and thus makes an attractive choice for firms relocating or expanding out of high-cost areas. A recent (1989) poll by Louis Harris and Associates, Inc., cited Seattle as the second most popular city in the United States, after Atlanta, in which to locate a business. Quality of life, especially the high environmental amenity, is greatly valued by footloose professionals and entrepreneurs. Both quality of life and economic criteria undoubtedly play a key role in attracting affluent migrants and decision-makers to the region.

Most of America's central cities in the 1970s and 1980s experienced a continuous struggle to retain employment and population. Seattle was relatively unique, maintaining a steady absolute increase in employment in both the city and suburbs across all economic sectors. Today the Seattle metropolitan area contains a booming retail and commercial property market downtown, as well as a highly successfully suburban city, Bellevue, and office park developments. In recent years new development has transformed the skylines of Seattle and Bellevue. Of particular note is the strong central city retailing core.

A New City of the Pacific Rim?

In Chapter 1 the editors of this volume propose three common features which characterize the new city of the Pacific Rim. First, such cities have moved from an economic base dependent upon a manufacturing industry to one in which trade in information and knowledge constitute the new basic industries. This new economic base facilitates the emergence of a new metropolitan spatial structure, elsewhere called a "new space of production" (Castells, 1985). The new city of the Pacific Rim is the manifestation of this new metropolitan spatial structure, which is best described as de-centered. In brief, the de-centered city is the form of the Pacific city and is characterized by a group of interrelated suburbs and satellites dispersed across the metropolitan region. Second, the new city of the Pacific Rim is internationally oriented in terms of visitors and transactions. It caters to the needs of a cul-

turally varied population and clientele. Third, the new city of the Pacific Rim plays a major role as a locus of information provision and communications across the Pacific Rim. As a communications center, the Pacific Rim city is a locus for the physical transportation of people, as well as the spatial concentration of telecommunications and other communication-oriented infrastructure. The distinctive feature of the new city of the Pacific Rim is that it is both a product of, and is necessary to sustain, an increasingly international division of labor across all economic sectors.

In the following section we show that the case of Seattle is a premier illustration for the editors' propositions.

ECONOMIC AND DEMOGRAPHIC BASE

With an economic base dominated by aircraft manufacturing, the city's economy remains closely tied to the boom-and-bust cycles of Boeing (Conway et al., 1989). Under the impetus of increasing trade with Pacific Rim nations (especially Japan), growing service activities, and the high quality of life the region offers, the economy appears to be diversifying. As the economy diversifies, albeit slowly, it is becoming increasingly intertwined with the Pacific Rim, either through investments, trade, or transportation.

The city has a culturally diverse population, and social connections with Pacific Rim nations are historically strong. The city has a relatively large Asian-American community and is a preferred destination for new migrants from Pacific Rim nations. Tourism now plays an active role in the social life as well as the economy. In 1989 the Japanese topped the list of people who requested tourist materials from Seattle's Visitor Information Bureau. The social structure of the city is influenced to a certain extent by these Pacific Rim connections. There are cultural and commercial enclaves meeting the needs of the Asian-American community, tourists, and visiting business people.

Very High and Very Low Technology

Airplanes, forest products, and food products play a major role in the metropolitan economy —industries which traditionally have been highly vulnerable to cyclical fluctuations. Despite some diversification, Seattle's economic base remains heavily dependent upon manufacturing and natural resources. Boeing alone directly accounts for 6 percent of jobs and 45 percent of manufacturing employment. When the multiplier effects are calculated, the impact on employment is more than doubled and some 20 percent of jobs are related to Boeing (Conway et al., 1989). Between 1980 and 1988, employment in aircraft manufacturing (virtually all Boeing) more than matched metropolitan-wide employment growth.

Seattle has also provided fertile ground for new information and high-technology industries. The total employment in this sector remains small. Nonetheless, these are cutting edge firms with international exposure. Microsoft, the largest computer software company in the

world, McCaw Cellular, and biotechnology firms such as Genetic Systems and Immunex are all home-grown successes.

In addition to the manufacturing sector, Seattle has experienced strong service-sector growth in the past decade, reflecting sectoral changes in urban economies across the nation and the particularly pronounced metropolitan locational preferences of service-sector firms (Black, 1981; Noyelle and Stanback, 1984). Seattle has experienced strong service-sector growth in the past decade.

Producer services, especially finance, insurance, real estate, business services, and engineering, have all added large numbers of new jobs to the metropolitan economy. There is evidence indicating that many producer service firms are exporting from the region and ought to be considered as part of the economic base. In fact, in 1984 the number of jobs resulting from exported services was larger than the number of export-tied manufacturing jobs. As a result, about half of the regional export base was in services, and the majority of their markets were Pacific Rim countries (Beyers and Alvine, 1985). Table 6-1 provides an overview of the metropolitan employment structure.

However, it is not clear that Seattle is moving towards a service-sector city independent of the manufacturing industry. Analysis of the employment impact of the aircraft manufacturing industry reveals that productivity has outstripped employment increase, and wages have also risen. This has increased the amounts of goods, and especially services, purchased by Boeing and Boeing employees in the economy. The aircraft manufacturing multiplier has increased; consequently, much of the growth in service-sector employment is driven by the expansion of Boeing.

The metropolitan economy is also changing in the wake of the changing pattern of global trade, increasing communications, and business travel. Airborne Express, an international business mail and courier firm, whose market stems from the increasing need for business communications, is headquartered in Seattle. For similar reasons, the airport is experiencing massive growth to handle increasing air travel and air freight demand.

Thus, unlike many other Pacific Rim cities, Seattle's economic base continues to have a significant manufacturing component. The success of Boeing has been a dynamo driving the agglomeration of economy and people in the metropolis. However, the growth in export-based service-sector jobs indicates how even this traditional manufacturing region is changing in ways similar to other cities of the Pacific Rim. Moreover, the metropolitan area's population is fast approaching two million and may now provide a large enough market to facilitate the growth of information, communication, and knowledge-based economic activity. The economic growth not arising from aircraft manufacturing derives from a new role for the city as a locus for business communications, high-tech and biotech industries, and as a conduit for increasing trade across the Pacific Rim.

Table 6-1

**Employment by Selected Economic Sector,
Metropolitan Seattle, 1980-88**

<u>Sector</u>	<u>1980 Number</u>	<u>Percent</u>	<u>1988 Number</u>	<u>Percent</u>	<u>Change Number</u>	<u>1980- Percent</u>
MANUFACTURING	173,200	22.1	197,900	20.1	24,700	14.3
Aircraft	78,800	10.1	100,000	10.1	21,200	26.9
Other Transport	13,300	1.7	9,000	0.9	-4,300	-32.3
Lumber & Wood Prods.	10,100	1.3	9,400	1.0	-700	-6.9
Electrical Machine	9,200	1.2	9,300	0.9	100	1.1
Instruments	4,700	0.6	8,200	0.8	3,500	74.5
Other Durable Goods	26,300	3.4	27,100	2.7	800	3.0
Printing and Publishing	8,700	1.1	12,800	1.3	4,100	47.1
Food Products	10,700	1.4	10,000	1.0	-700	-6.5
Paper Products	3,700	0.5	3,700	0.4	0	0.0
Other Non-Durable	7,700	1.0	8,400	0.9	700	9.1
CONSTRUCTION	40,600	5.2	51,500	5.2	10,900	26.8
TRANSPORTATION AND UTILITIES	53,200	6.8	61,300	6.2	8,100	15.2
SERVICES	392,400	50.1	539,700	54.7	147,300	37.5
Finance, Insurance, Real Estate	56,500	7.2	70,100	7.1	13,600	24.1
Wholesale & Retail Trade	187,100	23.9	238,900	24.2	51,800	27.7
Other Services	148,800	19.0	230,700	23.4	81,900	55.0
GOVERNMENT	120,100	15.3	134,900	13.7	14,800	12.3
TOTAL NON-AGRICULTURAL EMPLOYMENT	782,600	100	985,900	100	203,300	26.0
POPULATION	1,607,618		1,823,400		215,782	13.4

Sources: Washington State Department of Employment Security and
Washington State Office of Financial Management

DECENTRALIZED SPATIAL STRUCTURE

The rapid pace of growth is transforming the spatial structure of the metropolitan Seattle. While existing and new centers of employment are growing very rapidly, the overall trend is toward greater decentralization.

Commuting patterns provide evidence of the decentralization. The origins and destinations of commuter trips are no longer dominated by suburb-to-city commuting. In 1985, suburb-to-suburb commuter trips represented 36 percent of the total commuter trips in the region, compared to 30 percent for the traditional suburb-to-city commute (Pivo and Lidman, 1990). Moreover, the proportion of work trips to Seattle's central business district has been declining relative to total work trips in the region (City of Seattle, 1989).

Office development trends also are indicative of the regional pattern of growth. In 1960, 98 percent of the region's office stock was located in downtown Seattle. But by 1988 it had fallen to roughly 50 percent. Currently, the majority of the office stock is distributed among 40 different office clusters along the region's major transportation corridors (Pivo, 1990).

The metropolitan area now has an office inventory of some 42.5 million square feet, making it the sixteenth largest market in the nation (Hopkins et al., 1989). Vacancy rates are well below the US average, and there are fewer of the overbuilding problems compared to other markets. With a market experiencing continued growth and low vacancy rates, new development will continue to reinforce the region's new decentralized spatial structure.

Although the majority of office and other employment is in scattered locations, new and existing centers have seen strong growth as well. The largest 10 percent of the office clusters contain 45 percent of the region's office stock (Pivo, 1990). Retail development is also strong in these locations. Unlike most American cities, retailing in downtown Seattle has not lost out to a host of large suburban regional and super-regional malls. Indeed, a plethora of department stores and upscale specialty stores, heavily related to the office growth, continue to capture a large portion of the area's retail sales. The downtown retail core has grown steadily in recent years, and it is anticipated that retail growth will continue with the recent arrival of more upscale stores such as Gucci and Barney's New York. Similar strong retail activity exists in other major centers.

PACIFIC RIM INTERDEPENDENCIES

Seattle's development is directly related to its major role as a northwestern United States gateway linking it to the Pacific Rim.

Trade and Transportation

Trade and transportation are key sectors on which interdependencies with the Pacific Rim are being forged in Seattle. Waterborne and airborne trade through the Port of Seattle, and passenger transportation at Seattle-Tacoma International Airport, are steadily increasing.

The Port of Seattle encompasses both Seattle-Tacoma International Airport and all marine activities, and is a key element of the economic vitality and international character of the city. Recent estimates suggest that port activity is responsible for some 47,000 to 49,000 jobs throughout the metropolis (The Port of Seattle, 1989). The Port is playing an important role in establishing Seattle as a center, in the extensive network of trading and transportation links which stretch westward across the Pacific Rim and east to Europe.

The Port is the closest major airport and seaport in the continental United States to Asia. The distance from Tokyo to Seattle is 4,781 miles, compared with 5,135 miles between Tokyo and San Francisco and 5,433 between Tokyo and Los Angeles. Furthermore, Seattle is halfway between Europe and Japan, and half of all the air cargo passing through Seattle is en route to Europe. Seattle also offers advantageous highway and rail access to the Great Lakes states and the East Coast, as well as an expanding airlink to Europe.

In recent years the Port has achieved steady growth, capturing a large proportion of increased trade and travel between the United States and Pacific Rim destinations. Waterborne trade through the Port of Seattle has increased dramatically throughout the past decade; between 1983 and 1985 the total dollar volume of trade jumped some 78 percent. Seattle is the leading port in the United States for container exports to Asia and is the only West Coast port with balanced container trade; exports and imports are of similar volume.

Seattle-Tacoma International Airport is emerging as a major national hub and transit point between the continental United States, Europe, and the Pacific Rim. In 1988, 14.5 million passengers passed through the airport, and it ranked 23rd in the United States and 31st in the world for passenger transport volume. Air cargo is a major component of port activity. The airport is ranked 14th in the United States, and 25th internationally, by air cargo tonnage.

Japan, South Korea, and Taiwan dominate water-borne trade in and out of Seattle. In 1988 just over half the dollar value of all waterborne trade through the port of Seattle was with Japan; in the five years from 1983 to 1988, Japan's share of waterborne trade rose by 6 percentage points. Pacific Rim nations totally dominate waterborne trade through the Port; of the top ten trading partners in 1988, only neighboring Canada, with about 1 percent of trade, is not a Pacific Rim nation. The data for waterborne trade also attest to the increasing volume of American trade with Pacific Rim nations that passes through Seattle. Between 1983 and 1988, trade with Japan, South Korea, China, Australia, and New Zealand more than doubled.

Airborne trade passing through Seattle's custom district illustrates the advantages of Seattle's location midway between Europe and Japan. Airborne trade is evenly balanced between European and Pacific Rim nations.

Unlike the nation as a whole, there is some balance in the Pacific Rim trade flowing through Seattle. Pacific Rim nations rank high both as the origin of imports and the destination for American exports. Imports outweigh exports by just over three to one. Japan, South Korea, and Taiwan are the top-ranked trading partners for both exports and imports. The commodities imported from the Pacific Rim nations are for the most part final products: office machinery, auto-parts, audio equipment, and electronic exported. In contrast, food and raw materials are the major waterborne exports to Japan, Korea, and Taiwan: lumber, aluminum, frozen fish, beef, pork, poultry, and paper. Seattle trade partners and trade flows are shown in Table 6-2.

Migration and Education

Seattle's ties to the Pacific Rim are not just economic. The metropolitan area houses a large, growing, and culturally diverse Asian-American population. It is diverse in composition and includes similar numbers of individuals with Japanese, Filipino, and Chinese origins.

During the 1980s, Seattle ranked high as a stated destination for documented immigrants from the Pacific Rim, with the vast majority of new immigrants from Vietnam, the Philippines, South Korea, Cambodia, Laos, and China (see Table 6-3). As a result, the number of Asians and Pacific Islanders grew by 43 percent between 1980 and 1988, to over 97,000 individuals, and by 1988 included 5.3 percent of the total population in the region. It is likely that the continued migration from Pacific Rim nations into the Seattle area will expand the social and cultural connections between the metropolis and Pacific Rim nations. The urban fabric continues to change, reflecting the growing diversity of the Asian-American population, with distinctive enclaves catering to its social cultural needs.

The University of Washington, a short ride from downtown, is a popular choice for students from Pacific Rim countries seeking a scientific and technical education. Offering outstanding engineering and medical sciences programs, the University contributes to the transfer of knowledge and innovation across the Rim. The Pacific Rim provides an increasing majority of international students at the University. China, South Korea, Taiwan, Japan, and Hong Kong were the leading sources of international students between 1986 and 1989. With the exception of Thailand, the latter half of the eighties saw an increased enrollment by students from Pacific Rim nations. For American students, the University has large and active programs teaching the languages, and economic and social institutions, of Pacific Rim neighbors.

Table 6-2

**Port of Seattle, Waterborne Trade,
Volume of Imports and Exports, 1983 to 1988
(\$Millions)**

<u>1988</u> <u>Rank</u>	<u>Country</u>	<u>\$1983</u> <u>(million)</u>	<u>Percent</u>	<u>\$1988</u> <u>(million)</u>	<u>Percent</u>	<u>Absolute</u> <u>Change</u>	<u>Percent</u> <u>Change</u>
1	Japan	6,617.0	46.0	13,371.3	52.1	6,754.3	102.1
2	Korea	1,768.3	12.3	3,893.2	15.2	2,124.9	120.2
3	Taiwan	2,570.5	17.9	3,064.6	11.9	494.1	19.2
4	Hong Kong	1,301.2	9.0	1,375.3	5.4	74.1	5.7
5	China	180.1	1.3	727.5	2.8	547.4	303.9
6	Australia	16.2	0.1	594.0	2.3	577.7	3,556.0
7	Singapore	388.8	2.7	409.6	1.6	20.8	5.3
8	Canada	252.5	1.8	241.5	0.9	-10.9	-4.3
9	Thailand	97.3	0.7	174.4	0.7	77.1	79.2
10	Malaysia	101.8	0.7	170.8	0.7	69.1	67.8
11	Philippines	214.4	1.5	166.9	0.7	-47.5	-22.2
12	United Kingdom	94.1	0.7	165.4	0.6	71.3	75.7
13	West Germany	85.7	0.6	164.0	0.6	78.3	91.4
14	Italy	85.8	0.6	162.1	0.6	76.3	88.9
15	New Zealand	7.7	0.1	90.4	0.4	82.6	1,066.9
	Top 15	13,781.5	95.8	24,770.8	97	10,989.4	
	All	14,381.6	100	25,654.3	100	11,272.8	

Source: Port of Seattle Market Research analysis of U.S. Census Bureau 305/705 Tapes.

Table 6-3

**Immigrants Admitted to the United States
Intending to Reside in Seattle
By Specified Country of Birth, 1982 to 1988,
Top Ten Countries of Origin**

<u>Rank</u>	<u>Country</u>	<u>1982-88 Number</u>	<u>Percent</u>
1	Vietnam	4,735	14.8
2	Philippines	4,634	14.5
3	South Korea	3,108	9.7
4	Cambodia	2,473	8.0
5	Laos	2,284	7.1
6	China	2,115	6.6
7	Canada	1,092	3.4
8	Taiwan	924	2.9
9	India	916	2.9
10	Iran	800	2.5
	Top Ten	23,181	72.3
	Total	32,049	100.0

Note 1: Excludes 1983, no available data.

Source: United States Immigration and Naturalization Service, Immigration Statistics.

Investment

Robust growth in Seattle, the success of Boeing, and the Pacific Rim orientation of economic diversification have all helped bring the region to the attention of international investors. In Seattle, recent attention has focussed on real estate acquisitions such as office buildings and hotels. Japanese investment is a recent phenomenon; Canadian, British, Scandinavian, and German investors have held property in the region for some time. New investment from Pacific Rim nations does not approach the volume of activity seen in Vancouver, British Columbia, only some 150 miles to the north (which Edgington documents in Chapter 7 on Vancouver, B.C.). However, with high prices in Los Angeles and the San Francisco Bay Area to the south, and an overheated property market in Vancouver, British Columbia, it is likely that Seattle will receive increased attention from overseas investors.

GROWTH SETS THE PLANNING AGENDA

The three key features of the new city of the Pacific Rim highlighted by the editors— decentered spatial structure, an information- and communication-based economy, and international orientation — may be generating another commonality among Pacific Rim cities: the problem of managing growth across a metropolis. The extent and nature of growth are international in their origins and regional in their consequences. But planning in America's metropolitan areas is fragmented among dozens of local communities. Consequently, its ability to address the emerging problems associated with the new spatial form is severely limited.

In Seattle there is considerable pressure to address the consequences of growth. How to accommodate growth, maintain the quality of life, and prevent environmental degradation are the principal issues confronting politicians and city planners alike in metropolitan Seattle.

Currently, a major debate is taking place over the political institutions and planning programs necessary for addressing growth-related problems. It is apparent that our institutions need restructuring if they are going to solve the problems. However, due to the need for a regional response without an effective regional organization, our present institutions cannot respond effectively. One result is a powerful "not in my backyard" movement which is, at best, relocating and, at worse, compounding the problems.

Problems in the Northwest Paradise

Several social and physical problems in Seattle either have their genesis in or are being exacerbated by the current trajectory of spatial and economic development. On the spatial side, decentralization is introducing growth into areas with deficient infrastructure systems. Undeveloped and environmentally sensitive areas are being developed because of their new-found accessibility to suburban employment opportunities, or because of their aesthetic attractiveness to foot-

loose development. These problems are intensified by the low-density nature of the development, which consumes more land, is more expensive to service, and renders certain infrastructure options, like public transit, infeasible.

On the economic side, growing levels of consumption are also contributing to growth-related problems. Consumers are driving more, living on more land, and using more resources in their daily activities. While this is certainly related to the metropolitan spatial structure in which they conduct those activities, it also is affected by incomes, household structure, tastes, and preferences. On the supply side, developers, planners, bankers, and politicians make decisions which tend to reinforce demand side-pressures for highly decentralized and segregated patterns of land use.

Several specific problems, attributable largely to recent growth, can be found in Seattle. They are not unfamiliar to observers of other Pacific Rim cities.

The transportation network in Seattle was designed for a downtown-focused metropolis, in which most people lived in the suburbs and worked in the central city. The network is composed of radial highways and transit lines designed to serve one major downtown, with fewer suburban roads intended primarily for residential recreation and shopping trips. However, the new suburban growth is too low in density and too decentralized to be well served by this circulation system. As a result, Seattle is now ranked as one of the most congested cities in America.

The development of previously open spaces and the loss of aesthetically and environmentally sensitive features is another major issue. Population growth, increased affluence, and the development of large-lot, single-family housing are creating considerable market demand for land. The suburbanization of employment now makes it easier for residential development to leapfrog to new suburban areas. This new residential construction is causing the loss of environmentally sensitive and open-space areas. Low-density development patterns encourage great amounts of these lands to be consumed by development. As a result, since 1970, developed land in the Seattle region increased 2.5 times more than the population.

Both air and water in Seattle are also threatened with serious degradation, and some of the most significant sources of pollution have their origin in the decentered and low-density pattern of development. The largest source of air pollution is the automobile, and its contributions are worsened by an urban form which encourages driving and traffic congestion. One of the largest and difficult to control sources of water pollution is urban run-off. It is made even harder to control by the low-density urban pattern, which destroys natural water retention and filtration systems, like wetlands, and makes it more difficult to construct runoff collection and treatment systems.

Rapid population growth is also generating a demand for housing which is outstripping supply. This is creating an affordable-housing problem. In the past few years, housing prices in Seattle have grown as fast or faster than any place in the nation. The median home price increased by 24 percent in the Seattle area between 1988 and 1989, slightly more than both the San Francisco

Area and Honolulu, which are well known for high real estate inflation. For the market to deliver cheaper housing, smaller and more densely clustered units need to be built. However, low-density zoning requirements and other regulations, which are used to fight the traffic and environmental impacts, make this a difficult proposition.

The New Seattle Planning Politics

These problems have spawned a new political movement to manage or control growth in the region. It is being led by a variety of citizens' groups, including The Sensible Growth Alliance, Vision Seattle, and Citizens for Managed Growth. There are numerous other manifestations of the movement, including the convening of the Governor's Growth Strategies Commission and the passage of several growth management bills in the 1990 and 1991 State legislative sessions.

What is underlying many of the growth issues, and the public reaction to them, is a new urban form that relies almost exclusively on the single-occupant automobile and consumes vast amounts of open land. What is needed is a physical plan for the development of the region that either mitigates the adverse effects of this pattern, or pushes growth into a more compact pattern of development.

A more compact and multi-centered urban form could be better served with public transportation and infrastructure. It would use land less extensively, and put less pressure on rural and environmentally sensitive areas. Today's footloose, low-density, and decentralized form of development cannot be served by public transportation, it generates more traffic, and causes the development of the very open spaces that give Seattle its reputation as an environmentally attractive area.

More than ever, the new metropolitan form requires a regional plan for the location of land uses and public facilities. The market once generated a centralized urban form that could be effectively served with central-place-oriented public facilities. Today's decentralized and low-density metropolis is impossible to serve, within the limited budgets now available for public capital projects.

However, even if such a plan were prepared, the existing planning structure is not capable of implementing it. Governance in general, and planning in particular, is fragmented among a multitude of general and single-purpose agencies. Fiscal costs and revenues caused by growth are generally kept by the government in which the growth is located, which encourages local governments to compete for that mix of land uses which will generate the most positive cash flow. This discourages local governments from accepting a plan in which other local governments would become the employment hubs.

As a result of the impotence of the present planning system, the political process degenerates into negative, rather than positive, activity. Neighborhood after neighborhood is pushing for protectionist and "not in my backyard" laws adopted through quickly conceived bill-writing and citizen initiatives.

Rather than solving the problems, these reactions can make them worse. Neighborhood opposition to localized growth, outside the context of a regional vision, encourages an even more decentralized, low-density pattern of growth by pushing developers into undeveloped areas where they are less likely to encounter strong opposition from existing residents.

The search is on for a system of planning and governance that can discipline the land use demands stemming from Seattle's robust economy, and the spatial form of the modern growing metropolis. Various proposals are being offered, mostly for a higher level of government that will provide some discipline from the top. However, unless the tension that currently exists between growing neighborhood control and the need for regional coordination can be resolved, new governmental controls from the top will be met with severe opposition from the bottom. Government is currently "middle-heavy," and the solution may lie in the simultaneous devolution and evolution of power, in which neighborhoods gain greater control over changes that occur in their midst in exchange for a commitment to implement their share of cooperatively developed regional solutions.

THE ESSENTIAL ROLE FOR REGIONAL GROWTH MANAGEMENT

The spatial manifestation of the new form of regional growth that characterizes the Seattle area is causing a variety of problems as well as opportunities. Many of these problems flow from the regional pattern of land use that is found in Seattle and other Pacific Rim cities. To address these problems, future planning policy needs to explicitly recognize this and direct or control the regional form of land use. However, current government planning systems do not exist to do this. If we are going to solve these problems, planning institutions capable of reconciling the regional consequences of growth must be established.

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CHAPTER 7

VANCOUVER: CANADA'S GATEWAY TO THE RIM

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INTRODUCTION

Vancouver is Canada's gateway and one of the first truly Pacific Rim cities in North America. For example, during the first quarter of 1989, and for the first time in its history, British Columbia (B.C.) exported more of its goods and services to the Asia Pacific Region than it did to the United States (41 percent to Asia Pacific versus 40 percent to the United States) (Ford, 1989). Additionally, Macmillan Bloedel, the province's largest company, announced that it would sell more lumber to Japan in 1989 than it would to the United States, another first (Macmillan Bloedel, 1989).

In this chapter, we document Vancouver's past, present, and future links with the Pacific region, based on the theses articulated in this book. Our thesis is simple: Vancouver has emerged as a "Pacific Rim city," and is becoming more so over time. To develop this thesis, we begin immediately following to set out evidence about the historic and more recent connections with the region. The next section focuses on present and emerging ties with the principal nations and cities of the Pacific Rim region. Following this is a discussion of certain public policy issues and initiatives at the national, provincial, and local level that arise from this growing integration with the Pacific area. The final section provides a brief summary and synthesis.

SOME EVIDENCE OF VANCOUVER'S ASIA PACIFIC TIES

Vancouver's Geographic and Historical Context

The Pacific Rim has always been an important shaper of the city's history. The founding of the city and the province was rooted in their Pacific location (see Figure 7-1) (Berton, 1970; Morley, 1974; Nicol, 1978). The Canadian Pacific Railroad and Canadian National Railway (MacKay, 1986) provided physical ties linking Canada to the Pacific and were largely constructed by ethnic Chinese. Immigration from India and Japan early this century forged further links.

In the current period, 1986 will likely prove to be a watershed year in Vancouver's brief history. It was the city's 100th birthday, the year of EXPO '86 — the international transportation and telecommunications fair — and the year that the recession of the early 1980s began to give way to economic prosperity. It was also the year that Vancouver emerged on the Pacific Rim and larger world scenes as a modest, but growing, international city.

The 1986 Census for the Vancouver Census Metropolitan Area (CMA) (Vancouver Board of Trade, 1989) revealed that 105,170 people (or 7.62 percent of the CMA population) came from Asia (excluding India). This census also recorded 100,340 ethnic Chinese (7.36 percent), 13,955 ethnic Filipinos (1.02 percent), and 12,100 ethnic Japanese (0.89 percent). The total claiming Asian ethnic origin (excluding those from India and Pakistan) accounted for about 10 percent of the CMA population in 1986. More recent figures do not exist, but would doubtless show increases since 1986 both in absolute and percentage terms. Vancouver's demographic structure represents, therefore, immigration that has been underway for over a century (Chan, 1983; Nicol, 1978; Ward, 1978; Yee, 1989).

Current Linkages With The Pacific Rim

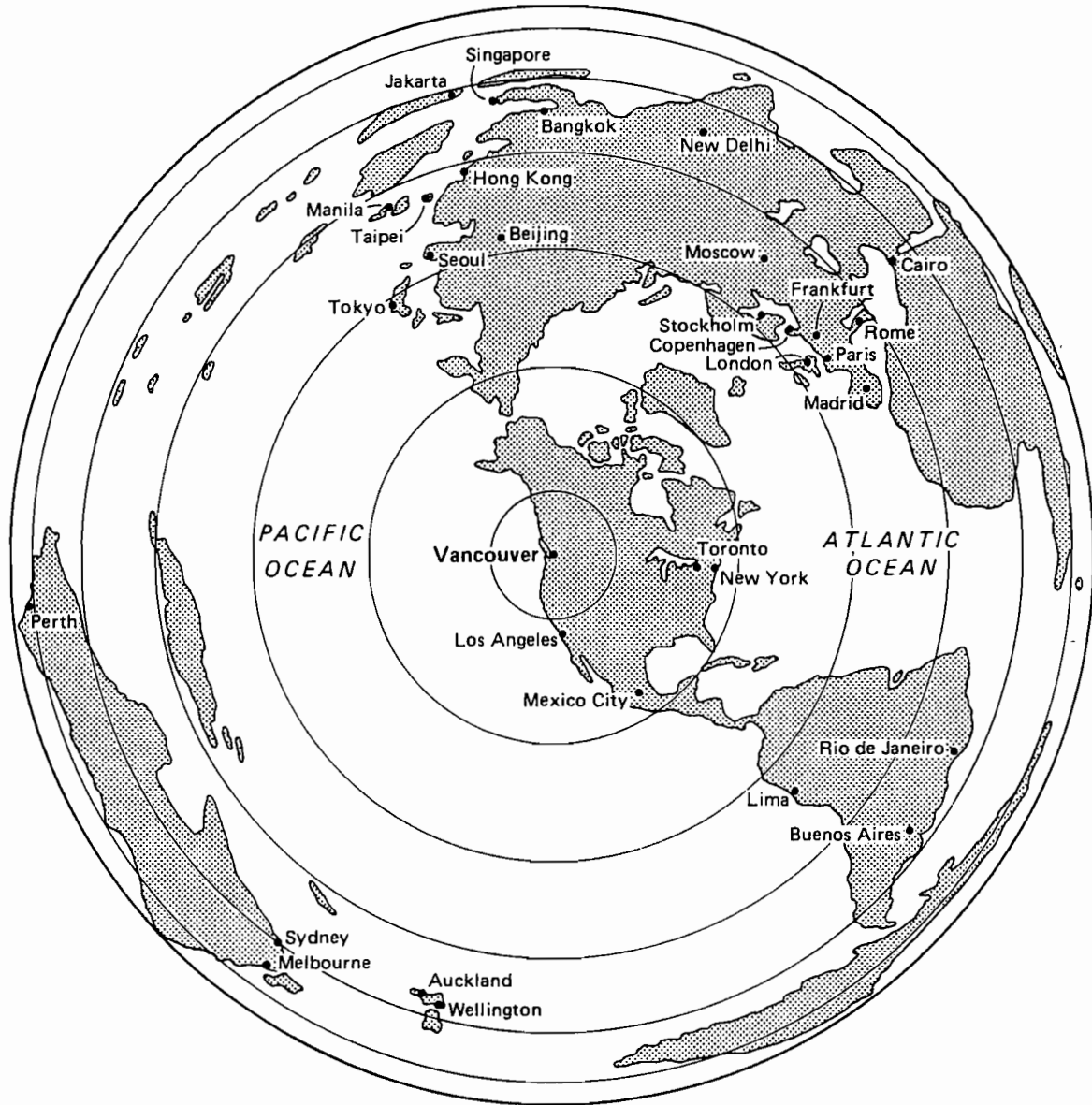
In recent years, it has become clear that there is a series of important economic linkages between Vancouver and the Pacific Rim, linkages which will further consolidate the city's position within this dynamic and growing region. This reflects not only the steady growth of trade with the Pacific, but also a distinct trading pattern when compared with that of the rest of Canada (see Edgington and Goldberg, 1990).

One of the strongest images emerging from the city's historical development is the importance of its trans-Pacific shipping trade. Post-1945 commodity trade with Pacific nations (notably Japan) was a decisive factor in the growth of the Port of Vancouver to the status of the largest in Canada, as well as the largest on the Pacific coast of North America by tonnage (Forward, 1978). After 1986, west Pacific countries increased their share of shipping to nearly three-quarters of total tonnage passing through Vancouver's Port (Vancouver Port Corporation data).

Besides linkages by sea, air travel — both cargo and passenger — travel present another important indicator of Vancouver's links with the Pacific Rim. Vancouver International Airport (YVR) is now the second-busiest airport in Canada, carrying approximately twice as many international passengers as neighboring Seattle and rapidly approaching the level of international traffic at San Francisco. In the latter half of the 1980s, it experienced increases of about 8-12 percent per year in its total international passenger traffic (excluding the USA) and 20 percent per year increases in air cargo traffic (Transport Canada data). The most important links have been established with the west coast of the United States (Los Angeles, San Francisco, and Seattle) and across the Pacific to Tokyo. In the five years from 1983 to 1987, Pacific Rim destinations (specifically Hong Kong, Honolulu, and Sydney) recorded the strongest growth in passenger flights (International Civil Aviation Organization data).

Figure 7-1

Vancouver and the Pacific Rim



Another important measure of Vancouver's integration with Asia-Pacific countries is business and tourist travel. Tourism and convention activity is now British Columbia's second-largest industry behind logging and forestry products. Vancouver is a major center, both as an important tourist destination in Canada and as a principal port of entry for overseas visitors (Hutton, 1989). Throughout the 1970s and 1980s, visitors from the United States dominated B.C.'s tourist industry, naturally enough. But when expressed as a proportion of total visitors per year, those from Asia-Pacific countries grew in significance and exceeded the proportion arriving from Europe by the early 1980s. Among Asia-Pacific countries, visitors from Japan now dominate, followed by those from Hong Kong and Australia (Statistics Canada data).

Immigration and Internationalization

Figures 7-2 and 7-3 provide a summary of immigration to Vancouver by class of immigration, as well as by the continent of origin, for the year 1989. Table 7-1 looks at immigrants bound for Vancouver in 1989, by class of immigrant from the top ten source countries. Taken together they paint a rather striking picture. First, Asia provided more than two-thirds of the immigrants to Vancouver and to British Columbia in 1989, suggesting that ties to Asia will continue to grow along with immigration flows. Second, ethnic Chinese dominate the flows, including here people from Hong Kong, the PRC, Taiwan, and Malaysia, as well as Singapore (ranked number 11 source country), and likely the majority of Vietnamese. Hong Kong, by itself, accounted for 22.7 percent of the international immigrants to Vancouver in 1989, and for 19.1 percent of all international immigrants to British Columbia. By contrast, considering the importance of their other ties with Vancouver (set out below), there is a marked absence of Japanese immigrants.

Through the city's high schools, colleges, and universities, Vancouver has a unique set of educational exchanges with Pacific Rim countries. In fact, when the rest of Canada was admitting lower levels of university students from overseas in the 1980s, British Columbia as a whole gained higher numbers of students from Asia-Pacific nations (Statistics Canada data). Yet another measure of the strength of Vancouver's ties with the Pacific Rim can be found through the sister city relations established by several municipalities in the region, relations which have commercial, as well as cultural and social, dimensions (Vancouver Economic Advisory Commission, 1989).

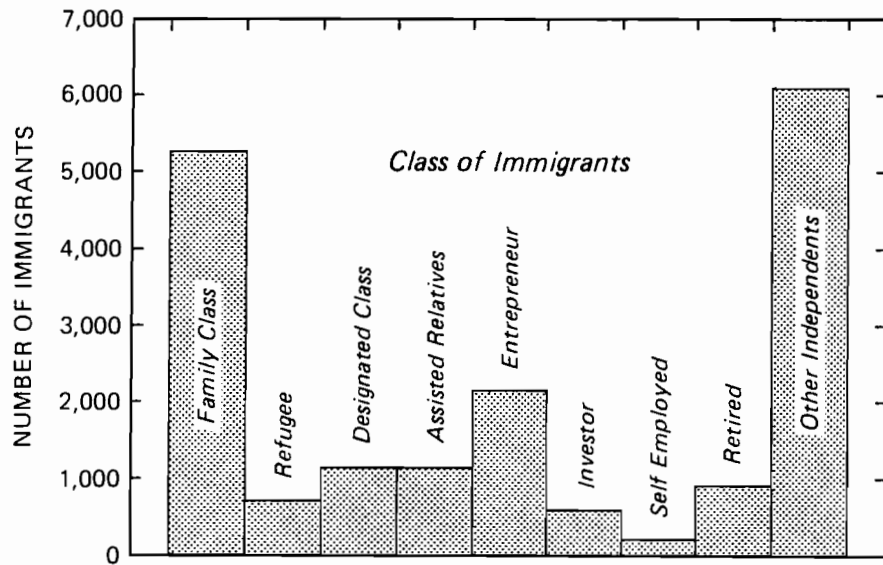
LINKS TO THE NATIONS AND KEY CITIES OF THE PACIFIC RIM

The Chinese Connection

As noted at the outset, ties to ethnic Chinese, and therefore to Hong Kong and other parts of Southeast Asia, are long-standing in Vancouver. Recently, these ties have become much deeper and broader, centering mainly (but not exclusively) on the growth of Hong Kong immigration, and investment in local real estate. The latter has involved luxury high-rise condominiums and deluxe hotels,

Figure 7-2

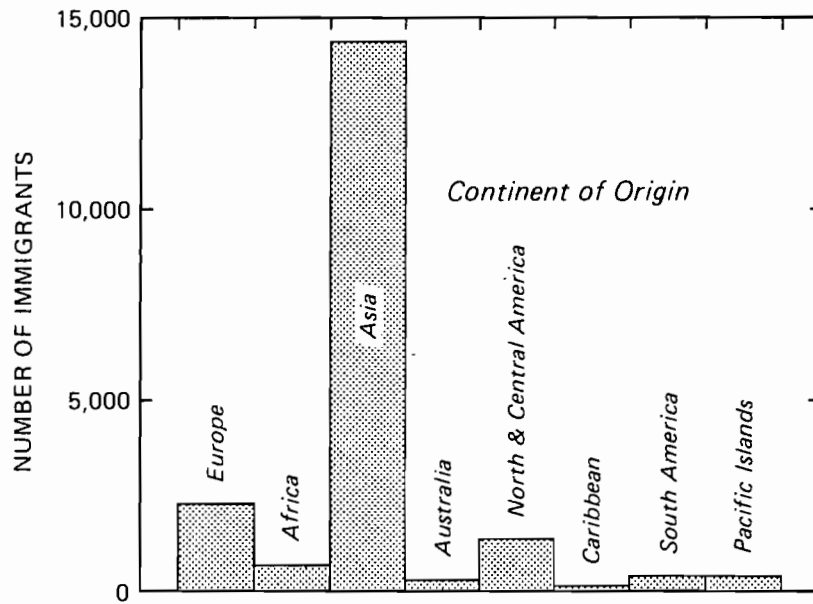
Number of Immigrants by Immigrant Class, Vancouver 1989



Source: Canada Department of Employment and Immigration, unpublished data.

Figure 7-3

Number of Immigrants by Continent of Origin, Vancouver 1989



Source: Canada Department of Employment and Immigration, unpublished data.

Table 7-1

Top Ten Source Countries by Immigration Class, Vancouver 1989

	<u>COUNTRY</u>	<u>FC</u>	<u>CR</u>	<u>DC</u>	<u>Retired</u>	<u>A.R.</u>	<u>Entrep.</u>	<u>Inv.</u>	<u>S.E.</u>	<u>Ind.</u>	<u>TOTAL</u>
1.	Hong Kong	584	1	8	520	141	1,305	322	45	1,703	4,629
2.	India	1,280	2	0	10	60	15	3	3	79	1,452
3.	Philippines	373	2	0	16	212	169	44	0	898	1,714
4.	Taiwan	62	0	0	209	26	490	469	9	76	1,341
5.	PRC	755	4	0	14	79	8	3	9	86	958
6.	England	348	0	0	25	71	39	1	8	393	885
7.	Vietnam	219	0	524	0	16	0	0	0	0	759
8.	U.S.A.	377	3	0	57	9	15	0	8	202	671
9.	Malaysia	82	0	0	19	23	124	5	12	309	574
10.	Iran	<u>55</u>	<u>224</u>	<u>4</u>	<u>52</u>	<u>25</u>	<u>58</u>	<u>3</u>	<u>13</u>	<u>108</u>	<u>542</u>
Top Ten Total		4,135	236	536	922	662	2,223	850	107	3,854	13,525
Others		<u>1,775</u>	<u>392</u>	<u>745</u>	<u>206</u>	<u>529</u>	<u>756</u>	<u>76</u>	<u>94</u>	<u>2,298</u>	<u>6,871</u>
TOTAL IMMIGRATION		5,910	628	1,281	1,128	1,191	2,979	926	201	6,152	20,396

NOTE:

- FC = Family Class
- CR = Convention Refugee
- DC = Designated Class
- AR = Assisted Relatives
- Entrep. = Entrepreneurs
- Inv. = Investor
- S.E. = Self Employed
- Ind = Other Independents

Source: Canada Department of Employment and Immigration, 1989, and unpublished data.

as well as extensive modern houses for recent wealthy immigrants (Cannon, 1989; DeMont and Fennell, 1989; Yuen, 1989; Gutstein, 1990). Investment from Hong Kong was dramatized in 1988, when the choice 204-acre site of Expo '86 was sold for C\$260 million to Li Ka-shing, founder of one of Hong Kong's biggest trading firms. To put this growing "Chinese connection" into context, we explore below aspects of Southeast Asian ethnic Chinese culture, before reviewing evidence from real estate investment to illustrate how these more general features work to favor Canada and Vancouver.

The ethnic Chinese, as key entrepreneurs in Southeast Asia, have been able to amass great wealth as a result of the exceptional growth of the region (Wang, 1981; Limlingan, 1986). Yet the economic success of the ethnic Chinese has been both a blessing and a curse leading to discriminatory practices, periodic race riots, and restrictions on land holdings and economic power. The overseas Chinese have faced such considerable discrimination over the past 130 years that it is not surprising that, as their wealth grows, they seek geographic diversity for their assets. The uncertainty provided by their history in Southeast Asia is an important factor in their desire to diversify and establish businesses and family in such politically stable areas as Vancouver. However, it is difficult to fathom their diversification strategies without first grasping their business culture and style.

Considerable research exists on overseas Chinese culture, showing that among the most important elements are family and trust (Lim and Gosling, 1983; Suryadinata, 1989; Wolf, 1978; Yoshihara, 1988). In traditional Chinese society, the family was seen as the basic building block of a stable society (Baker, 1979); whereas trust is absolutely central to the overseas Chinese way of conducting business — on it depends credit, business contacts and references, and social acceptance. Other features relevant to our analysis include the importance of land and education. Historically, land in China was of vital importance, since a family that could acquire land and retain it could perpetuate its status and well-being (Chao, 1986). Also, education occupies a fundamental place in traditional and overseas Chinese cultures and was critical in passing Imperial civil service examinations; a civil service position could lead to power, prestige, land, and family continuity. In Southeast Asia, education was a tool for enhancing family position and maintaining the family through time.

Real Estate as an Important Asset

Given the foregoing background information, one of this paper's authors set out to interview overseas Chinese real estate investors based in Hong Kong, Singapore, Bangkok, and Kuala Lumpur, to see how and why and where they invested (Goldberg, 1985). The findings can be summarized in the following way.

To begin with, there is a great deal of diversity in the patterns of real estate investment flows. North America is the most frequently cited destination, but significant flows occurred within the region itself, particularly to Hong Kong when the property market there was booming in the late 1970s and early 1980s.

Half a dozen criteria for real estate investments were cited. Portfolio diversification was the most-quoted criterion and has two aspects: the desire to diversify portfolios by acquiring real estate, and the desire to diversify geographically out of the region. Closely related was "capital conservation" and the need for political stability to ensure that the newly acquired real estate would maintain its value and provide a safe haven for family funds. These criteria were expected, but, surprisingly, there was also a strong link recorded between the prospective real estate investment and the location of family and friends, and where children and grandchildren were attending university. The education and investment criterion was unexpected, yet consistent with overseas Chinese cultural views of education and family maintenance, as mentioned above.

This review of ethnic Chinese real estate investment is instructive because it provides all of the basics needed to understand other kinds of investments by this group. These include, among other things: stability and long-term growth potential; conducting business with trusted friends, family, and proven business associates; perpetuating the family; links with overseas students; and diversification and capital preservation. Yet another of the distinguishing characteristics of ethnic Chinese is the role that immigration plays in many investment, education, and economic decisions. Based therefore on the historic persecution of the ethnic Chinese in Southeast Asia, as well as the importance placed by the ethnic Chinese on perpetuating the family line, it is not surprising that having at least one branch of the family in a safe haven such as Canada is a priority. Recent immigration flows discussed earlier bear this out.

Bringing the above assessment together with the previous material on Vancouver's historical and educational ties with Southeast Asia goes a long way in explaining the current interest of Hong Kong investors in Vancouver's housing and commercial real estate (discussed in detail in Cannon, 1989; DeMont and Fennell, 1989; Yuen, 1989; Gutstein, 1990). For the overseas Chinese, real estate provides a logical initial investment, and active real estate development is usually first, so that an investor becomes active in building a new real estate product instead of merely buying existing buildings. However, over time, as they become more familiar with a place and its real estate markets, an evolution in investment behavior occurs. Yuen (1989) lists in some considerable detail the new range of manufacturing and trading businesses currently being undertaken in Vancouver by Hong Kong people alone. Add to this the growing interest from Taiwan, Singapore, and Malaysia, and a much more diverse Chinese investment picture in the city begins to emerge. The sectors most talked about include: clothing and textiles; food processing; light manufacturing and appliances; electronics; and toys and plastic items.

The prospects for a continued broadening and deepening of Vancouver's Southeast Asian "Chinese connection" appear strong. As a result of its recent economic strength, British Columbia is attracting serious ethnic Chinese business investors, who previously focused on Toronto and Southern Ontario. With the Ontario economy slowing down and that in British Columbia still rela-

tively on the rise, British Columbia is attracting these active investors instead of retired entrepreneurs or so-called "yacht people" (as distinct from "boat people") (Stoffman, 1989).

On the investment side, the future for continued flows of ethnic Chinese capital to Canada and British Columbia is favorable. This results from continued growth in Southeast Asia, the accumulation of capital by the ethnic Chinese, and the need to diversify out of the region. Hong Kong is an example of a small territory with less than six million people. Prudence suggests that business expands beyond such a small base, and British Columbia and Canada provide excellent locales with long-term growth potential and political stability. Chinese entrepreneurs in Singapore and Malaysia face a similar situation.

Thus, the push from Southeast Asia, and pull from Vancouver and British Columbia, argue for strong flows of people and capital and for lasting social and economic ties between Vancouver and Southeast Asia. The data portrayed in Table 7-1 suggest that Hong Kong will continue to be the largest source of immigrants. Future figures in the 1990s and beyond may show an even larger proportion of Hong Kong immigrants. A recent survey showed that nearly 50 percent of potential immigrants from Hong Kong to Canada would prefer to move to Vancouver (*Vancouver Real Estate Weekly*, 24 August 1990).

The Japanese Connection

While the well-developed Vancouver-Hong Kong connection has perhaps received the most attention, the city and its region have also had significant linkages with Japan. This association stretches back to Japanese migration to B.C. in the 1880s (Pringsheim, 1983). In the post-war period, it commenced with the business connection between Japanese trading companies (the *sogo shosha*) and their banks, and Vancouver-based corporations involved in the development of western Canada's resources (Wright, 1984).

Due to the need to secure very large quantities of Canadian agricultural and industrial resources, twelve of Japan's major trading companies established subsidiaries in Canada from the late 1950s onwards. From these, seven companies chose Vancouver as their local headquarters; the others chose Toronto or Montreal in central Canada (Edgington and Goldberg, 1990). It is striking that while the central provinces (Ontario and Quebec) comprise about 60 percent of the Canadian economy, approximately 60 percent of the *sogo shoshas'* trade is done through the Port of Vancouver (Mitsui and Co. Canada data). This is due to both British Columbia's Pacific Rim location and the particular focus of the trading houses' Canadian activities on B.C.'s and Alberta's resources. Thus, while Japan accounted for only 6.0 percent of Canada's total export destinations in 1988, it made up 27.1 percent of B.C.'s exports in the same year (Ministry of International Business and Immigration data).

The first wave of Japanese investment into Canada occurred in the resources sector in the 1960s; and again the Japanese trading companies based in Vancouver were at the forefront. Over the decade, investments by Japanese interests focused on the copper, coal, and timber industries of British Columbia and Alberta; a total of 75 percent of all combined Japanese-Canadian resource ventures registered in Vancouver at this time being copper mines or concentrator plants. Japanese investments also occurred in coal, molybdenum, zinc, and nickel mines (Bradbury, 1978). By the end of the 1960s, the interest of the trading companies and their Japanese clients focused increasingly on west Canadian coal and, in particular, on the Kaiser Resources Ltd. (now Westar Mining) deposits near Sparwood in the East Kootney region of B.C. (see Figure 7-4). The substantial proven coal deposits located here provided the impetus for a new wave of minority direct investments by Japanese steel makers and utility companies in B.C. coal operations (Halvorson, 1987).

Following the oil price increases of the 1970s, Japanese interests have been associated with the North East Coal development near Tumbler Ridge (Figure 7-2), a multi-billion dollar "mega project" involving long-term contracts on the part of Japanese utility companies, and public investment (mainly involving Provincial government funds) with associated infrastructure totalling some C\$1 billion. Recently, however, this project's viability has been seriously undermined by Japanese attempts to reduce both the price and quantity of coal contracted for (Report on Business Magazine [Toronto *Globe and Mail*], November 1988, 86-95; *Globe and Mail*, 15 June 1990).

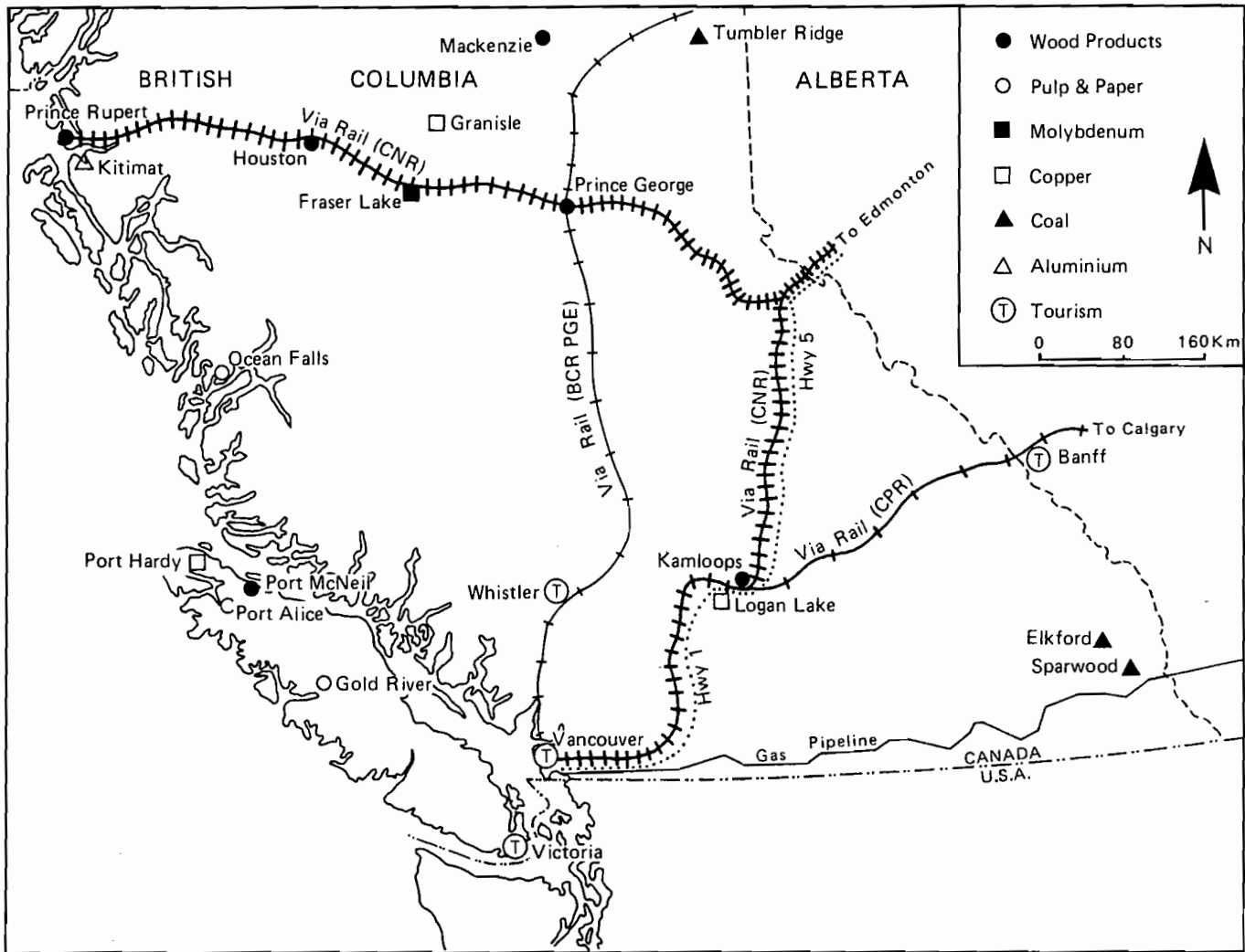
In the mid-1980s, Vancouver became the head office center of a new wave of investments into pulp and newsprint mills in B.C. and Alberta, as a result of the internationalization of Japanese paper companies after the revaluation of the yen in 1985. For example, both of Daishowa Paper's Canadian head office subsidiaries are based in Vancouver in order to liaise with and manage these new projects (*Globe and Mail*, 21 February 1989). Imports into Japan of Canadian pulp and newsprint accelerated by 23.5 percent in 1987 over the preceding year (*Japan Economic Journal*, 13 February 1988). Ley and Hutton (1987) point out that even when these types of resource investments are made in projects located in remote regions of B.C., the major growth impulses are transmitted back to Vancouver-based financial, insurance, real estate, and business services. In this way, Japanese trade and resource investments have significantly contributed to Vancouver's restructuring to a service-based economy (Hutton, 1989).

Japanese Corporate Power

Japanese corporations also have an interest in Vancouver as a banking and financial center, although the full potential is constrained presently by both the relative size of its market hinterland and the dominance of Toronto within the Canadian financial system. Nevertheless, the city does possess a broad range of branches of Japanese banks and securities offices (Edgington and Goldberg, 1990). Thus, with respect to banking, Vancouver contains regional branches of The Bank of

Figure 7-4

Vancouver and US Resource Hinterland



Tokyo, Mitsui Bank, Dai-Ichi Kangyo Bank (DKB), Sanyo Bank, Daiwa Bank, the Industrial Bank of Japan, and the Canadian head office of the Mitsubishi Bank. Japanese banks originally focused on helping their Japanese clients do business in Canada, as well as extending their international presence (Wright and Pauli, 1987). For nearly all the banks, this meant locating their head office in Toronto, considered to be the nation's financial center as well as lying in the same time zone as New York (*Financial Post* [Toronto], 7 December 1988). Any further expansion of Japanese banking networks, say to larger and more autonomous regional offices in Vancouver, will depend upon corporate moves into retail banking. This is reported to be difficult for the time being, due to the strong competition with the large number of Canadian and foreign financial institutions already established in Canada.

Liberalization of the Canadian stock market in 1987 (the Canadian version of the "Big Bang") permitted Japanese securities firms to set up business in Canada. Again, Toronto, not Vancouver, was the preferred location, as the Toronto Stock Exchange is currently ranked 10th in the world (*Japan Economic Journal*, 4 July 1988). While Japanese securities companies (such as Nomura and Daiwa) are heavy buyers and holders of Canadian government bonds, their returns have been modest and insufficient to justify expansion into the West coast. Only Daiwa Securities Co. has opened a Vancouver office, in 1989, in order to compete for local pension funds (interview with Assistant General Manager, Daiwa Securities Co., Ltd., Tokyo, June 1989). As things stand, therefore, Japanese banks and securities companies do not yet appear ready to commit funds to develop Vancouver's financial markets. This judgement may have to be tempered in the future if current rates of population and job growth continue to favor Western Canada (*Financial Post*, 12 Sept. 1989), and if the expanding Pacific economy causes a re-evaluation of Vancouver as a financial and business center.

Canada has been a favored tourist destination for the Japanese since the early 1970s (Stubbs, 1988). In the current period, the new wave of international tourism from Japan, together with the high-valued yen against the local Canadian currency, have increased the number of Japanese tourists coming to Vancouver and other parts of British Columbia. Japanese investors are following the boom in tourism world-wide, and in B.C. they have been selectively buying properties tied to tourism at resorts close to Vancouver. For example, just 80 kms north of the City lies the international-class Whistler ski resort (Figure 7-2), possibly the second or third most popular in North America behind Vail and Aspen in the USA. The number of Japanese skiers here tripled in the years 1987 to 1988, a period in which four of the twenty-six hotels at Whistler were bought by Japanese firms (*Vancouver Sun*, 26 November 1988). Currently it is estimated that more than one-third of Whistler hotel bookings are to Japanese tour wholesalers (ibid.).

In Vancouver itself, the Tokyo Construction Group of Japan built the Pan Pacific Hotel in 1985 to coincide with Vancouver's 1986 Expo. This was followed in 1988 by the purchase of two Vancouver hotels by the Tokyo-based Okabe group, which comprised part of the interests acquired

from the B.C. Coast Hotels, Ltd. (*Globe and Mail*, 25 November 1988). Yet another construction company, Aoki Corporation, owns the Westin hotel in the downtown area (*Financial Post*, 4 September 1989). Apart from hotels, Japanese property investment here so far has been negligible — unlike the interest expressed in Vancouver's property market by other Asian groups (Edgington, 1990). The largest single Japanese investment to date (mid-1990) in Canadian real estate comprises the Hong Kong Bank of Canada Building in Vancouver, which was sold to Sun Enterprises for C\$130 million in April 1989 (*Vancouver Sun*, 11 April 1989).

Over the last 30 years, the Japanese connection with Vancouver has deepened and shifted in and out of sectors in a way which mirrors the rapid changes occurring in the Japanese economy. In the foreseeable future, consequent upon a continuing Japanese tourism boom and an expansion overseas of Japanese firms into this area, it is likely that B.C. ski resorts, hotels, and property will follow copper, coal mines, and forests as captives of the largest economy in the West Pacific. This is likely to focus on B.C.'s so-called "Golden Triangle" area (Vancouver, Whistler, Victoria; see Figure 7-4), thereby directly and indirectly benefitting Vancouver's business and other service industries. Other opportunities for Japanese involvement in Vancouver's commercial interests exist in the City's rapidly expanding software industry (which has the potential to complement Japanese strengths in computer hardware), as well as spin-off commercial enterprises from B.C. research centers (UBC Reports, 12 January 1989).

Emerging and/or Nascent Connections

Other areas deserve mention. Starting with South Korea, Canada is one of the few OECD countries to run a trade surplus with this country, largely as a result of coal from British Columbia. Many Korean firms share offices in Vancouver, including some of its largest banks, and Koreans also make up a significant portion of recent immigrants. Taiwan has also just discovered Canada, and British Columbia now attracts much interest from the Taiwanese as investors and immigrants. The province recently opened a trade office in Taipei. Thus, trade, investment, and immigration between British Columbia and Taiwan should increase greatly in the future (Nutt, 1989). Lastly, ASEAN nations (Thailand, The Philippines, Indonesia, Malaysia, and Singapore) are experiencing rapid economic growth, which should result in Vancouver's gain. First, the Chinese connection matters here (Limlingan, 1986), and Vancouver's visibility among ethnic Chinese suggests greater activity will develop. Second, direct air service between Bangkok and Vancouver will promote travel between B.C. and Thailand. Similar direct service between Vancouver and Singapore through Seoul improves already close ties. Third, educational and aid links between Canada and ASEAN will yield economic and cultural benefits and closer ties in the near future for Vancouver.

These lesser Pacific Rim relationships lead one to conclude that in the aggregate they are non-trivial. Some, such as those with the US West Coast, are likely to grow following the recently

concluded US-Canada-Mexico Free Trade Agreement in 1992. Those relationships with Taiwan, South Korea, and ASEAN can also be expected to bear significant results by the next century.

PUBLIC POLICY IMPLICATIONS AND DIRECTIONS

Vancouver's Relative Strengths as a Pacific Rim Service Center

Service activities in general have accounted for the major share of employment growth in the Vancouver economy over the recent past. The head office complex in downtown Vancouver, a strong public-sector presence, and a regional population of 2.9 million people have encouraged the rise of a vigorous producer service sector (Ley and Hutton, 1987; Hutton, 1989). Services to business management, in particular, may well be a sector in which the Vancouver economy is developing a comparative advantage. This is enhanced by the known economic linkages of this sector with the service sectors in which the Vancouver economy has been estimated to possess comparative advantages; i.e., trade, finance, and commerce (Davis and Goldberg, 1988; Hutton and Davis, 1989; Hutton, 1989). It is also enhanced by Vancouver's locational attributes vis-à-vis Asia.

Vancouver's location on the "Great Circle Route" to Asia places the city strategically on major air and sea routes from Western North America to Tokyo, Seoul, Hong Kong, Taiwan, Shanghai, and Singapore (Figure 7-1). The city thus should be a major hub for travel to Asia from North America, and even from western Europe. The Pacific time zone allows a normal working day to bridge working hours in London, New York, and Asia — of particular interest to financial firms, but of help in service generally (Goldberg, Helsley, and Levi, 1988 & 1989; Lee and Vertinsky, 1988). Telecommunications access is also essential. Here again, the metropolitan area is extremely well served and of importance in the interregional competition for "quaternary" service and managerial activities (Pye, 1979).

The city's Pacific Rim location has also meant development, as noted above, of long-term broad commercial and trading ties with the Asia-Pacific region. Given this set of cultural, historical, and economic linkages with the region, it is clear why Vancouver is the site of Canada's Asia-Pacific Foundation and the UBC Institute of Asian Research, which are matched by complementary units at Simon Fraser University and the University of Victoria. Add to this diverse Asian ethnic, social, and cultural institutions, a bevy of Asian restaurants, and numerous Asian language and cultural programs, and a very significant advantage emerges for understanding and dealing with the Asia-Pacific area.

Tensions with Pacific Connections

At the most micro level, that of the urban property market, the Vancouver metropolitan area again has considerable advantages in the context of most of the other Asian-Pacific cities. Real estate prices and rents are reasonable in terms of international price levels (McKenna, 1987; Tsui, 1987), and the Vancouver region also possesses a compact urban form, minimal traffic congestion, and excellent public transit, allowing for efficient operation of office-based activities (discussed below).

The ready access to customers, shopping, and entertainment, and broad choice in proximate housing, particularly in the central city, all combine to provide Vancouver with a favorable operating-cost environment for Pacific Rim business.

While the Vancouver region's location on the Pacific Rim is an advantage for Asia-Pacific opportunities, it is a disadvantage for access to the rest of North America, especially the political and economic centers of central Canada and the eastern United States (e.g. Toronto, Ottawa, New York, and Washington). Over time, telecommunications innovations and airport expansion in Vancouver should diminish these negative effects of distance.

A second and related disadvantage is the general absence of scale and agglomeration economies in the region's headquarters and banking activities in particular. Recently passed federal "international banking center" legislation may help here, as may pending provincial legislation which promotes Vancouver as an international financial center (Reynolds, 1988).

From the above discussion, it is considered that Vancouver clearly possesses attributes of an international service center, particularly as one lying on the Pacific Rim. It may also have a special role as an international "honest broker" — simultaneously being on the Pacific Rim, but not in Asia; and being in North America, but not in the United States. Vancouver can capitalize, therefore, on Canada's lack of geopolitical aspirations and become a Pacific Rim service and management center without the high costs of such Asian centers as Tokyo, Taipei, and Hong Kong.

Federal and Provincial Policy Issues and Approaches

The emerging "Pacific Century" has greatly affected Canadian federal and British Columbian provincial policy. The federal/provincial "Asia Pacific Initiative," the federal "Pacific 2000" strategy, and recent metropolitan infrastructure plans are of particular interest.

The Asia-Pacific Initiative (API) was begun in December 1986, when Federal Minister Pat Carney and Provincial Minister Grace McCarthy signed a "memorandum of understanding" (MOU) for coordinating "initiatives to enhance British Columbia and Vancouver as Canada's Pacific Centre for trade, commerce and travel," and committing \$6.0 million for policy studies and seed projects. As of 1990, over fifty Asia-Pacific Initiative projects have been launched, spanning multicultural activities in schools; creating an Asia-Pacific Banking and Finance Institute; and bringing about international maritime centers in Canada (Asia Pacific Initiative, 1988).

The Pacific 2000 strategy, launched in 1988, seeks "to better enable Canadian business to compete in the expanding markets of Asia and to attract Asian investment and tourists" (Canada Department of External Affairs, 1989). The diverse Pacific 2000 programs include: language and language teacher training; Asia-Pacific research; international education; trade and investment promotion; and greater support for tourism. The strategy recognizes that significant gains should

result for enhanced trade and investment between Canada and Asia. With its location, Vancouver should be a major winner from this national approach to tapping into the Pacific Century.

The most critical infrastructure for realizing these Pacific opportunities is Vancouver International Airport (YVR). Studies are afoot for a third runway, improving the present terminal, and to develop a second terminal (Transport Canada, 1989). Still to be settled are cost-sharing between the federal and provincial governments, and the speed and form of local devolution for YVR.

A less pressing issue relates to the seaport, which spans half a dozen municipalities but is a federal responsibility. Key questions relate to added container capacity and efficiency, and improving the competitive pricing of the port. Enhancing the port's cruise ship facilities and capacity also is important, as these ships are vital to the booming tourism sector. Considerable devolution has already taken place, and greater independence from Ottawa will aid in achieving the most efficient scale and form.

Greater autonomy is also needed for federal agencies, like Canada Customs and the Department of Transportation (which owns and operates major airports). Relocating to Vancouver those federal agencies with a large Pacific Rim focus would help, as well (e.g. the Export Development Corporation [EDC], the Canadian International Development Agency [CIDA], and the International Development Research Council [IDRC]). Activities like Pacific 2000 improve the chances of moving federal agencies to Vancouver.

Metropolitan Policy Issues

Besides important measures taken by the Federal and Provincial governments, the City of Vancouver and its metropolitan region have also played a pro-active and complementary policy role. To begin with, in the late 1970s the City of Vancouver formed the Vancouver Economic Advisory Commission (VEAC) to help evolve an economic development strategy for the City. This strategy sought to build on the region's strengths as a provider of services to the provincial and western Canadian economies, and to promote the city's role as a key link between Canada and the Pacific Rim. Policies were established covering Vancouver's role as an international center of finance and business communications, tourism and other service industry exports (i.e., advanced technology, adequate industrial accommodation, and small business entrepreneurs) (Vancouver Economic Advisory Commission, 1983).

Since the nation-wide recession, which affected the city in the early 1980s, the Vancouver economy has seen a significant recovery, especially after the 1986 Expo. In the context of this optimistic policy environment, it was decided in 1988 to revise and extend the original VEAC strategy in two ways. First, the overall objective was restated— to develop Vancouver as Canada's "Pacific Rim Gateway" City and a center for trade, finance, travel, and tourism (Vancouver Economic Advisory Commission, 1989). Second, a focus was made to concentrate on more specific policies and plans.

For example, within the 1980s, Vancouver has developed important links with some thirteen Pacific Rim cities, both under its sister city relations and through other government and commercial contacts. Among a select number of Vancouver's Pacific Rim sister-cities, a "strategic cities" plan is being framed to best promote Vancouver's image as a progressive and outward-looking center of two-way trade and investment (ibid.).

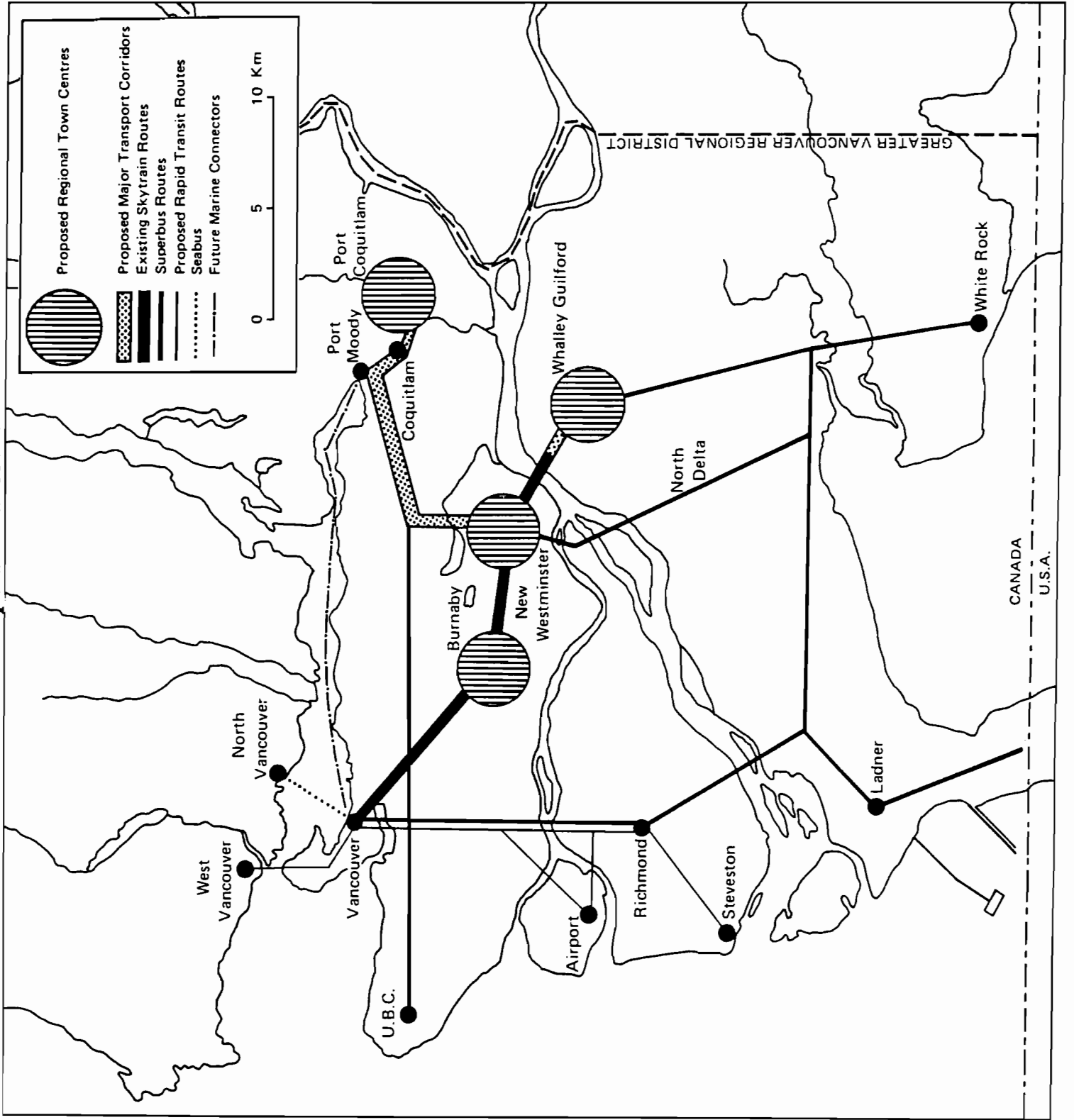
At the same time that the City and VEAC unveiled their revised strategy, the Greater Vancouver Regional District (GVRD) (comprised of the City and 15 surrounding municipalities; see Figure 7-5) was developing its own economic vision and action plan for the wider metropolitan area (Stevenson Kellogg Ernst and Whinney, 1988). Based on the knowledge that no part of metropolitan Vancouver can function independently, this overall vision for the year 2000 and beyond is designed to closely complement the City's Pacific Rim orientation described above, while recognizing the more general residential and manufacturing activities of the outer municipalities (ibid.). These essentially public-sector initiatives are strongly supported by leading private-sector organizations such as the Board of Trade, the Hong Kong Canada Business Association, and other Asian-oriented business organizations.

In addition, the City and GVRD have taken steps to implement a number of supporting activities aimed at upgrading the region's community and economic infrastructure— often in conjunction with provincial government funding and programme agencies. For example, it is well recognized that the successful implementation of the strategic initiatives mentioned above will require efficient transportation and communication services. Consequently, the City is currently working with GVRD and provincial agencies to upgrade port, rail, and arterial road systems in the region. Thus, the Greater Vancouver Transportation Committee has recently developed proposals and called on the province to spend C\$825 million, between 1991 and 1996, on road improvements and bridge widenings. This plan also recommended upgrading the city's commuter-based public transit system by nearly half a billion dollars (*Vancouver Sun*, 12 July 1989).

By way of contrast with some of the larger older centers along the North American Pacific coast, Vancouver is still a very young metropolitan region. This is expressed in the effects of strong centripetal market forces which, to date, have kept Vancouver's major economic and cultural functions clustered in the central downtown core. As suburban municipalities such as Surrey, Richmond, and Coquitlam have grown in population, the trend has been for the majority of jobs and cultural facilities to continue locating in Vancouver while suburban town centers remain mainly large shopping centers.

Planning policy, expressed in the GVRD's "Liveable Region Plan," has focused therefore upon decentralizing downtown work and cultural opportunities to regional centers (Greater Vancouver Regional District, 1976). The planning strategy has explicitly encouraged the development of a multi-nucleated metropolitan structure, through the establishment of designated Regional Town Centers. Four new "regional town centers" for the metropolitan area were designa

Metropolitan Vancouver



CANADA
U.S.A.

ted in this way: Burnaby-Metrotown and New Westminster in the inner suburbs, and Coquitlam Centre and Whalley-Guildford (City of Surrey) in the outer suburbs.

Current trends suggest that office suburbanization is occurring on a significant scale, with major gains recorded in the 1980s at Burnaby, North Vancouver City, Richmond, Surrey, and Delta, whereas the older suburban center experienced a relative decline in this period. Nevertheless, apart from successful development at Burnaby-Metrotown, this is not leading to the tightly patterned multi-nuclearization expressed in the GVRD's Liveable Region Plan (Hutton and Davis, 1985). Building regional town centers and concentrating suburban office and retail employment growth in these centers in the 1990s will continue to be a challenge, especially as: office floor space growth may be slower in the future; there has been until recently a considerable inventory of vacant space in the City of Vancouver; and there are a growing number of office parks along the major highways to absorb potential growth (Greater Vancouver Regional District, Development Services, 1989).

The Investment and Employment Impacts of Asia-Pacific Migration

The sizable immigration to Vancouver from Asia has already been mentioned, yet it has been very difficult to obtain a good estimate of recent Asia-Pacific investment (estimates up to 1989 range anywhere from C\$2 to C\$5 billion). The employment impacts of this investment, together with Asia-Pacific migration, is even harder to calculate. Nash (1988) estimates that, between 1984 and 1986, some 28,000 jobs were to be created or maintained across the whole of Canada by the 4,647 entrepreneurial immigrants who were granted visas during this period— in part, in return for their job creation and preservation activity. More recent estimates for 1988 and 1989 (Canada Department of Employment and Immigration, 1989) suggest that there were approximately 9,500 jobs created or retained by entrepreneurs giving British Columbia as their destination (Table 7-2). These entrepreneurs intended to invest about C\$2,120 million in 1988 and 1989, which, when added to the roughly C\$850 million invested by 410 other investor migrants (from all source countries in these two years), suggests that there was roughly C\$297 billion coming from immigrants into the Province in this period. The same data suggests that in 1988 and 1989, some C\$1.7 billion in funds were destined for British Columbia from Hong Kong alone (Table 7-3).

Thus, while precise employment impacts cannot be gleaned at present, it is fair to estimate that Asian immigrants and their funds have created and/or retained many thousands of jobs over the past half-dozen years since Canada began to actively attract immigrants and immigrant investors. Of greater interest, perhaps, than the total number of jobs is the diversity that is being added to the employment base of the region and the province. Thus, there is a remarkable array of new manufacturing and trading activities being created by immigrant investors from Hong Kong, Taiwan, Singapore, Malaysia, South Korea, and Japan (Yuen, 1989).

Table 7-2**Business Investment into British Columbia and Canada,
1988 and 1989****1. Entrepreneurs Accepted Abroad**

	<u>Jobs Created</u>		<u>Jobs Retained</u>		<u>Total Funds (\$ mill)</u>		<u>No. of Cases</u>	
	<u>1988</u>	<u>1989</u>	<u>1988</u>	<u>1989</u>	<u>1988</u>	<u>1989</u>	<u>1988</u>	<u>1989</u>
B.C.	4,571	3,415	986	517	818.5	1,301.4	872	692
Canada	14,855	12,009	2,650	1,449	7,514.1	3,670.9	3,097	2,890

2. Investors Visaed Abroad (\$ mill)

	<u>Funds Invested</u>		<u>Other Funds</u>		<u>Total Funds (\$ mill)</u>		<u>No. of Cases</u>	
	<u>1988</u>	<u>1989</u>	<u>1988</u>	<u>1989</u>	<u>1988</u>	<u>1989</u>	<u>1988</u>	<u>1989</u>
B.C.	129.7	880.0	174.8	457.7	304.4	545.6	156	255
Canada	202.4	231.0	386.4	944.0	388.8	1,069.0	322	589

Source: Canada Department of Employment and Immigration, 1989, and unpublished data.

Table 7-3

**Financial Inflow Associated with Total Immigration from Hong Kong
(cases with a positive final disposition)**

		<u>1988</u>	<u>1989</u>
British Columbia:	Cases	1,056	2,109
	Funds (\$ mill)	817.2	929.4
Canada:	Cases	9,391	9,494
	Funds (\$ mill)	2,329.1	2,563.6

Source: Canada Department of Employment and Immigration, 1989, and unpublished data.

The Housing Impact of Asia-Pacific Migration and Investment

Parallel to the efforts of local and senior levels of government to attract East Asian immigration and investment, concern has emerged over these trends among some sections of the community. This is based upon a sense that Vancouver is changing, and local citizens have little control over what is happening. Nowhere is this perception more manifest than with the issue of Vancouver's housing market, where Asian money and migration has been blamed for soaring real estate prices (*B.C. Business*, October 1988). The average price for a single detached house in Vancouver's middle-to-upper-income west side, for example, rose from about C\$250,000 to C\$550,000, between 1987 and 1990, before stabilizing in the middle of the year.

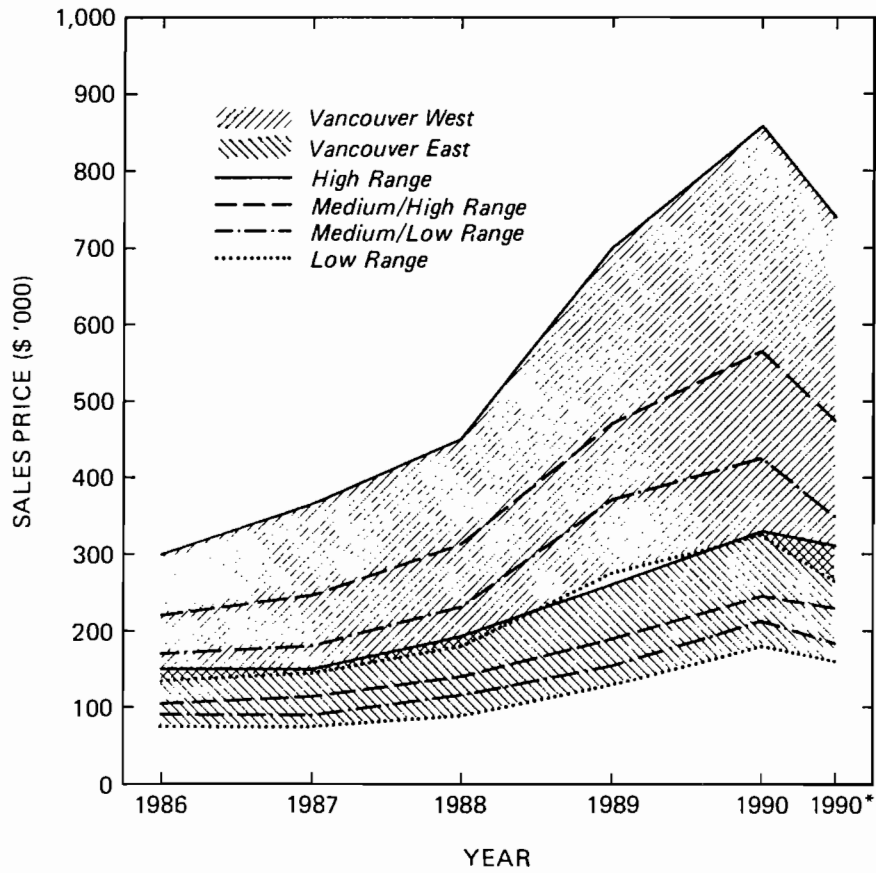
Analyses of this tight housing situation in metropolitan Vancouver have pointed not to overseas immigration per se, but to a more general mismatch between the demand for and supply of housing units (City of Vancouver Planning Department, 1989; Baxter, 1989; Schwann, 1989). Apart from Asian migration and investment, the strong demand for housing is a result of both the general attractiveness of Vancouver as a place to live, and the relative prosperity of the local job market (City of Vancouver Planning Department, 1989). Thus in 1988, net migration to B.C. is estimated to have reached 46,600 people, an increase of about 45 percent over 1987 and the largest population inflow since the 1940s. In particular, net interprovincial migration from the rest of Canada rose sharply in 1988 (up by 53 percent), after five years of overall decline following the economic recession of the early 1980s; whereas net international migration increased by only 33 percent in the same period (*ibid.*). In 1989, this high rate of immigration slowed somewhat. Nevertheless, compared to the high levels of housing demand, only about 6,000 additional single-family lots were added to supply in the Greater Vancouver area during 1988, not nearly enough to meet the increased market pressure (*Vancouver Sun*, 4 March 1989).

The net impact on Vancouver's housing market cannot be rigorously tested, due to the lack of a suitable database. Nevertheless, the policy implications from analyses carried out to date are clear: namely, that overseas migration to date has constituted a relatively minor component of total demand for housing. By way of illustration, in early 1990 house prices began to stall (Figure 7-6) at a time when overseas migration into Vancouver continued to run at historically high levels. Moreover, putting housing demand resulting from in-migration to one side, demand by current residents for well-positioned housing in Vancouver will continue to grow in the future, placing pressure on prices in the City's preferred suburbs, unless the supply of housing units in these locations keeps pace.

The perception in the community remains, however, that there is a link between overseas investment and the local housing market. This has been sharpened through the extremely high price increases and redevelopment pressures which have occurred in fashionable areas favored by recent Hong Kong migrants who are professional people and entrepreneurs (e.g. Vancouver's west side suburbs). Moreover, at a local level, certain unwelcome characteristics of Asia-Pacific housing invest

Figure 7-6

Median Residential Sales Prices (Single-Family Dwellings)
1986-1990 (C\$)



Sources: City of Vancouver Planning Department, 1989,
and unpublished data for 1990 provided by the Greater Vancouver Real Estate Board.

ments have already provoked members of the communities concerned. These include properties being sold exclusively in Hong Kong, and house price "flipping" (short-term speculative buying and selling) (*Globe and Mail*, 28 November 1988; *Vancouver Sun*, 17 December 1988, 17 March 1989, 30 March 1989). While much publicized during Vancouver's housing price spiral of 1988 and 1989, the true impact of such practices is unsubstantiated but likely to be small given the evidence cited earlier.

Throughout 1989, demands increased for the City of Vancouver Council to downzone those parts of the city subject to strong redevelopment pressure. This was resisted, but in recognizing the local community's apprehension and reluctance to accept rapid rates of change, the Council introduced demolition controls contingent upon six months' notice being given to tenants, or their relocation to another property, thus hoping to slow the demolition-rebuilding cycle in particular neighborhoods (*Vancouver Sun*, 8 March 1989). To date, neither the provincial nor city government has shown any enthusiasm for controls on real estate that may adversely affect the flows of investment to Vancouver from the Asia-Pacific region. As noted above, there is evidence that investors and immigrants from Hong Kong and elsewhere will diversify their investments from "passive" real estate holdings into more productive sectors, such as high-quality fashion garment manufacturing, which will better fit the strategic economic objectives of the City and metropolitan government (*Vancouver Sun*, 21 August 1989).

Yet another issue of concern to many local communities is education, which is not unrelated to the clustering of new Asian migrants in just a few locations. Thus, in some of the best Vancouver primary and secondary schools, ethnic Chinese make up a majority of the student population. In fact, for Vancouver as a whole, more than half of all primary and secondary school students speak English as a second language (*Vancouver Sun*, 17 October 1988, 10 October 1989).

SUMMARIZING, SYNTHESIZING, AND EXTENDING THE ARGUMENT

The data and analysis presented in this chapter support our thesis: Vancouver is truly a Pacific Rim city and Canada's gateway to the Rim. Its evolution as a node in the emerging network of Pacific Rim cities is a result of history, location, and public and private action.

Vancouver has captured media attention recently from Hong Kong, Toronto, New York, Los Angeles, Seattle, Toronto, and Tokyo, among others (see for example *Time*, 22 May 1989). Why has this former milltown attracted so much media interest? We hypothesize that Vancouver is a metaphor for the coming Pacific century. The ocean is no longer a barrier, but is a symbol unifying its eastern and western shores.

Vancouver is a Pacific Rim city also undergoing profound change. The city is moving from a regional center, built on natural resources, to an international city built on its location and high-quality living environment. Recent demographic change associated with Asian immigration is more modest

than the economic change. Immigration patterns really continue those established long ago. The economic shifts are new. It is this rapid, unchartered economic change that is the most stressful issue facing the city, as it manifests itself in changed land uses (e.g. luxury high-rise condos and deluxe Asian hotels) and in higher residential and office densities. These physical manifestations catch the public eye and ire, while underlying economic changes and opportunities elude the public view.

Recently, a Vancouver non-profit group (the Laurier Institute) initiated studies to develop a factual base for discussing immigration and foreign investment (Baxter, 1989; Schwann, 1989). Government and business support for close ties with Asia and for immigration has also helped greatly to overcome actual or latent prejudice. Lastly, videos are being developed to inform both existing residents and new immigrants about their mutual responsibilities. Information is the key in this regard, and much good information is starting to be developed and disseminated.

The rapid change Vancouver is undergoing is stressful. As people want to understand their world, so Asian migration and investment can be a (scapegoat) explanation. More helpful is understanding structural changes and working with people to see how change can provide opportunities and not just losses. This is ultimately what Vancouver may be able to share with the world—how a city can cope with economic and demographic change, while becoming a new prototype: a North American Pacific Rim City.

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CHAPTER 8

HONOLULU: THE POST-INDUSTRIAL PLAYGROUND

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INTRODUCTION

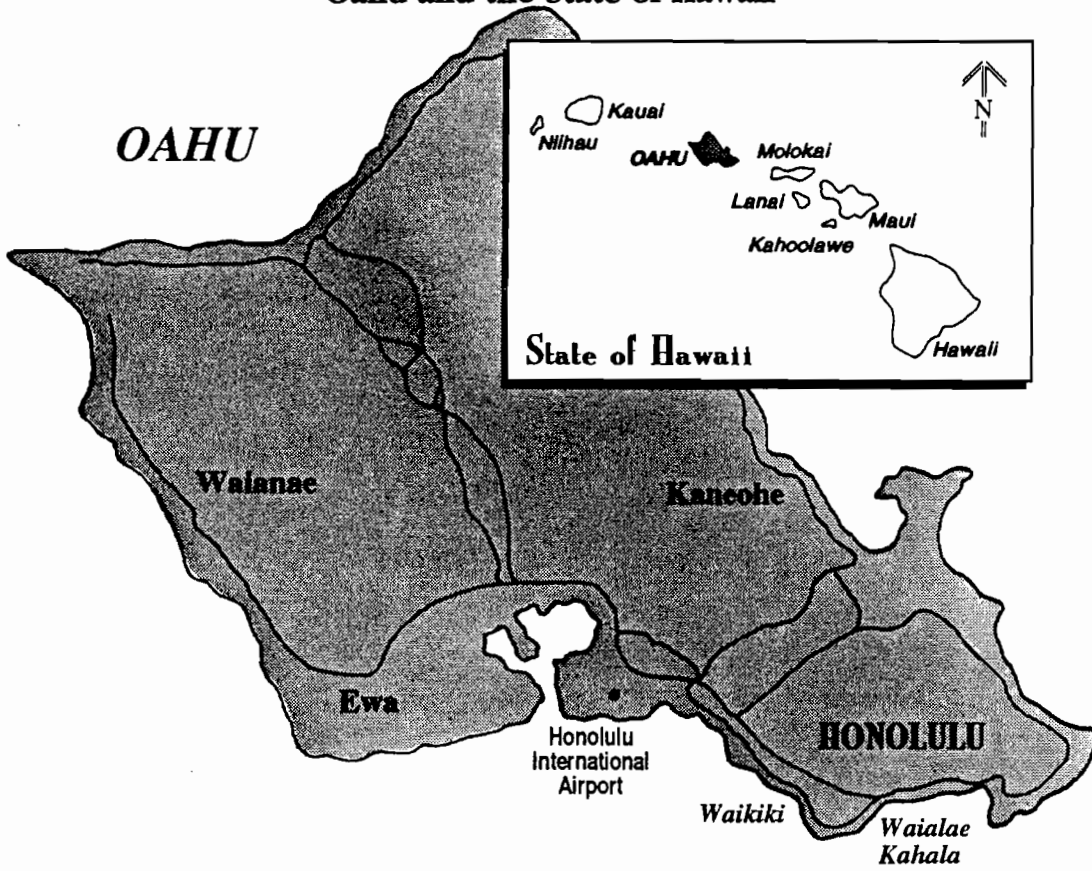
Each year, more than six million visitors come to Hawaii to take advantage of year-round favorable weather, beautiful beaches, hotels, golf courses, and tourist amenities. Honolulu has evolved into an international playground—a place where the rich and famous come to escape and relax in the warm Hawaiian sun. In 1986, the American Automobile Association (Kephart, 1986) reported that Hawaii had the highest per capita concentration of luxury hotels in North America. Because of its location and, more importantly, because of the shift in the geographic focus of the world's economy to the Pacific Rim, Honolulu has emerged as one of the premier playgrounds of the wealthy from around the Pacific Rim.

The forces responsible for transforming Honolulu into a "post-industrial playground" are a result of changes in the world economy. The globalization of capital, the spread of development throughout the Pacific region, and the shift away from manufacturing and production towards service industries (like tourism) and real estate transactions as a basis for producing wealth are among the exogenous factors shaping Honolulu's growth. The effects in Honolulu have included increased dependency on tourism, increasing congestion, rapid urbanization, and an urban design that is as evocative of Tokyo or Houston as it is of an island in the middle of the Pacific (see map, Figure 8-1).

While Honolulu has become an international playground, the city has become an increasingly expensive, alien, and polarized community for many of its residents. In addition to having the highest housing costs in the US, Hawaii residents suffer from an economy dominated by low-wage service sector employment (Tanouye, 1985). The loss of farm land has meant not only a reduction in agricultural employment, but also a loss of open space, a precious commodity in an island environment. Growth has strained the state's physical infrastructure. Crowded highways, water shortages, inadequate wastewater treatment facilities, and limited landfill space are well recognized problems in Hawaii. Prostitution, gambling, drug addiction, and other social problems associated with tourism have also increased. Increasingly, many of the costs associated with growth and development (greater density, congestion, loss of views, paying for new infrastructure, etc.) have been imposed on residents. The reality is that the playground has become an increasingly difficult place to live for many residents.

Figure 8-1

Oahu and the State of Hawaii



This chapter begins with an overview of some of the social and spatial changes that have occurred in Honolulu, and which reflect the major themes in this book. Colonialism, militarism, and economic dependency have contributed much to patterns of development, land use, and social relations in Hawaii. Honolulu has almost always been dependent on outside capital for development; however, a variety of factors, including the decline of agriculture and the successful world-wide marketing of Hawaii as an international tourist destination, has reshaped Honolulu's function and place in the Pacific Rim. Among the more drastic changes is the phenomenon of mega-resort development—the new plantation of Hawaii's post-industrial society. Hawaii's dependency on tourism has created a social environment characterized by low wages and increased polarization of the workforce (Table 8-1). Growing local resentment towards golf courses and high-priced housing is but an aspect of increasing ambivalence about Hawaii's dependence on foreign capital. Despite increased outside investment and growth in the Hawaiian economy, Hawaii's people remain concerned about the type of growth, its pace, and its impacts. Hawaii's location in the Pacific has brought not just prosperity, but also anxieties associated with change and an economy increasingly dependent on decisions made in Tokyo, Los Angeles, Washington, D.C., and places which used to seem much further away.

AN OVERVIEW: SOCIAL AND SPATIAL CHANGES IN HONOLULU

Created by volcanic activity some 30 million years ago, the Hawaiian archipelago consists of eight major islands (Oahu, Hawaii, Maui, Kauai, Molokai, Lanai, Niihau, and Kahoolave) and numerous smaller islands and atolls which extend over a vast area of the Pacific Ocean. While the principal land form is the shield volcano, over generations wind, rain, sea, and inland streams have carved dramatic valleys, canyons, and gulches into the islands (Armstrong, 1983). In addition to well-known beaches and coastal areas, Hawaii is also noted for its exotic plant and animal life (especially insects and birds), most prevalent in the interior mountainous and wooded areas of the islands.

Colonial Origins

Even to casual observers, the presence of colonial forces in Hawaiian history is apparent. Hawaii was colonized by western forces shortly after it was discovered by the English explorer, Captain James Cook in 1778 (Kuykendall, 1938). Whaling ships and merchantmen plying their trade between the Pacific Northwest and Asia found Hawaii to be a hospitable winter anchorage (Daws, 1968). Two notable port cities evolved: Lahaina, on the island of Maui, and Honolulu, on the island of Oahu. While there was competition between these two settlements, Honolulu eventually prevailed and it became the seat of government and industry. The name "Honolulu" in Hawaiian means "protected bay" (Pukui, 1974), a reference to the city's natural deep-water harbor. It was the presence of this safe harbor which attracted foreign ships, which in turn led to the establishment of a European settlement, which eventually spread to overthrow the Hawaiian monarchy.

Table 8-1**Social and Spatial Changes in Hawaii, 1950-1990**

	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1988</u>	<u>1990</u>
Population						
State of Hawaii	499,794	632,722	769,913	964,691	1,098,200	1,108,229
City & County of Honolulu	353,020	500,409	630,528	762,565	830,600	836,231
Housing Units	120,606	165,506	216,774	334,235	385,290	402,644
Personal Income (per capita)	\$1,386	\$2,3053	\$4,960	\$10,648	\$15,679	\$20,254
Gross State Product (000's)	\$839,900	\$1,825,200	\$4,414,000	\$12,226,000	\$21,587,000	\$27,647,000
Visitor Industry						
Annual Visitors	46,593	296,517	1,746,970	3,934,504	6,135,000	6,971,180
Direct Visitor Expenditures (000's)	\$24,200	\$131,000	\$595,000	\$2,875,000	\$8,300,000	\$11,750,000
Hotel Accommodations	2,003	9,522	30,323	55,700	69,012	72,237
Sugar Industry						
Production (short tons)	960,961	935,744	1,162,071	1,023,232	928,195	863,614**
Employees	22,000	13,500	10,629	8,396	6,008	3,493**
Sugar Cane Acreage	220,383	224,617	238,997	217,718	177,693	170,813**
Land Use Classifications						
Urban	n/a	117,800	140,163*	152,199	166,507	175,285
Conservation	n/a	1,862,600	2,009,087*	1,975,865	1,967,168	1,960,976
Agricultural	n/a	2,124,400	1,955,875*	1,974,196	1,968,524	1,965,935
Rural	n/a	6,700	6,375*	9,240	10,189	10,192

* 1964 Estimate

** 1988 Estimate

Sources: Department of Business and Economic Development (1989), Data Book, Honolulu: State of Hawaii; Schmitt, R. (1977), Historical Statistics of Hawaii, Honolulu: The University Press of Hawaii; and Chamber of Commerce of Hawaii (1989), Hawaii Facts and Figures, Honolulu: Hawaii Chamber of Commerce.

The ascendancy of foreigners over the Hawaiian people was assured by a political and economic system in which much land and power became concentrated into the hands of a few. Fuchs (1961) wrote that "probably no single event so drastically changed the social system of Hawaii as the Great Mahele" and other so-called land reforms enacted in the mid-1800s, which allowed for the lands of the Hawaiian Kingdom to be divided and owned in fee simple. After foreigners won the right to own land, they began acquiring large tracts for cultivation (Kent, 1983). The sugar plantation thus became the principal means through which Hawaii was colonized. The demand for Hawaiian sugar was spurred in part by the Civil War, which had reduced sugar production in the South. The other important factor was that a treaty of economic reciprocity was negotiated between Hawaii and the United States, which gave Hawaii's growers a great advantage over other foreign producers of sugar. The growth of sugar plantations affected Hawaii's spatial development. Plantation camps sprung up in outlying areas on Oahu and on the neighbor islands. A transportation network connecting major nodes evolved, with Honolulu acting as the central collection point for the islands as a whole. Hawaii's cultivation and production of sugar grew to the point that by 1900, Hawaii was supplying 10 percent of the US sugar market.

The growth of sugar plantations led also to the importation of contract laborers, first from China, then Japan, and later from Korea, Philippines, and other countries (Takaki, 1983). Although the plantations helped to diversify Hawaii's ethnic stock, the plantation system meant that a two-class society evolved — a small, largely Caucasian minority group of plantation owners and a larger, more racially mixed group of immigrant workers which possessed little political and economic power. After expiration of their contracts, many of these workers were able to leave the plantations and establish small businesses (Nordyke, 1977), and in this manner began to dissolve the colonial relations which had evolved over much of the late 19th century.

THE POPULATION AND ECONOMIC STRUCTURE

Hawaii's demographic profile today reflects several different influences. While the state's resident population has grown to over one million, the number of Native Hawaiians has shrunk to only 8,093 (DBED, 1990). The dominant ethnic groups include: Caucasians (23.4 percent), Japanese (23.0 percent), Filipino (11.3 percent), and Chinese (4.8 percent). More than 31 percent of Hawaii's population is of mixed ancestry, which reflects the extent of racial intermingling which has occurred. More recently, the largest share of new immigrants to Hawaii has come from Pacific Rim countries such as China, Taiwan, Korea, and the Philippines.

The Military

Another force which has had a profound effect on Hawaii's social and spatial development is related to Hawaii's strategic role as a military outpost. After becoming a US territory, several major

military facilities were established throughout Hawaii, including Fort Shafter, Fort Armstrong, Fort DeRussy, Pearl Harbor, Hickam Air Force Base, Wheeler Air Force Base, Bellows Air Force Base, Kaneohe Marine Corps Station, and other facilities.

The attack on Pearl Harbor in 1941 had several major consequences for Hawaii. First, it led to an even greater intensification of military activity on Oahu— during World War II, the military population stationed in Hawaii grew by more than ten times. Second, Hawaii developed into a major base of military operations and was used as a staging area during the subsequent Korean War and Vietnam conflict. Third, military expenditures have become an increasingly large component of the economy, and Hawaii has become accustomed to a strong military presence. Finally, it has been argued that the attack on Pearl Harbor contributed to the efforts to achieve statehood, which was granted in 1959.

At present, there are approximately 45,000 military personnel stationed in Hawaii. Hawaii ranks 39th in terms of resident population, but its rank in terms of total military personnel is seventh (DBED, 1990). The majority of the bases and military facilities are located on Oahu, amounting to more than a quarter of the island's total land area. Military expenditures in 1988 amounted to an estimated \$2.3 billion, including \$650 million for civilian payroll and \$632 million for purchase of goods and services in Hawaii (Chamber of Commerce of Hawaii, 1989).

The military presence in Hawaii has international implications as well. The 45,000 personnel stationed in Hawaii represents a sizeable proportion of the US forces in Asia and the Pacific. The total number of US Pacific Forces (including Hawaii) amounts to approximately 193,000 (Miller, 1990). With reductions in Korea, The Philippines, and other Asian countries, Hawaii's significance in the Pacific as a military outpost is likely to increase in the years ahead.

In terms of population characteristics, members of the armed forces differ greatly from Hawaii's population. In addition to being younger, predominantly male, and much more likely to have been born in a state other than Hawaii, those in the armed forces are generally of a different ethnicity than Hawaii residents (DBED, 1989). While Caucasians account for less than one quarter of the state's population, they are more heavily represented (74 percent) in the military. More than 13 percent of military personnel are Black, compared to less than 2 percent of the state's population. Asians and Pacific Islanders amount to more than 61 percent of Hawaii's population, but number only 8.1 percent of the military population stationed in the islands (DBED, 1989)

Hawaii's Economic Dependency

A small, remote island chain, Hawaii has always been dependent on outside capital and investment. Hawaii has become economically dependent on the federal government for military expenditures and sugar price supports. It has become dependent on the visitor industry as the primary basis for employment and trade. Finally, Hawaii has become increasingly dependent on international capital to finance its growth and development.

Evidence of Hawaii's economic dependency can be found by examining the value of imports and exports in Hawaii (DBED, 1990). For the most part, until 1935, the value of exports from Hawaii exceeded the value of imports. During the post-war period, however, Hawaii went from being a net exporter to being a net importer of goods and supplies. By 1970, total imports to the islands reached \$1.4 billion, compared to exports which amounted to only \$349.4 million. Throughout the decade of the 1980s, the volume of imports over exports continued to widen. By 1988, imported goods totalled \$9.9 billion, compared to exports of \$1.5 billion. These figures suggest Hawaii's increasing dependence on outside markets for the production of goods. The fact that only 34.8 percent of the fresh fruit, 32.6 percent of the fresh vegetables, 18.2 percent of the chickens, 20.2 percent of the pork, and 28.4 percent of the beef consumed in Hawaii is produced in-state (DBED, 1989) demonstrates the extent to which Hawaii has become dependent on mainland sources for even basic foodstuffs. The total farm acreage in Hawaii dropped from more than 2.6 million acres in 1900 to 1.7 million acres in 1988 (Historical Statistics of Hawaii, 331). Over the same period, agricultural employment declined from 55,931 (62 percent of total employment) to 13,600 (2.6 percent of total) (DBED, 1989).

Hawaii is dependent on the federal government for both direct expenditures and for support of the state's main agricultural product — sugar. Over the last two decades, federal expenditures in Hawaii have grown greatly (DBED, 1989). In 1968, federal expenditures amounted to approximately \$848 million. These expenditures have increased steadily ever since, to nearly \$4.9 billion in 1988. More than half of these expenditures, \$2.5 billion, were defense-related. In terms of per capita federal expenditures, Hawaii ranks seventh in the nation. Total federal wages paid in Hawaii in 1988 amounted to \$950 million, which was more than the total wages paid for agriculture (\$222.5 million), or manufacturing (\$469 million), or even mining and construction (\$738 million) (DBED, 1989). In addition to direct federal expenditures, Hawaii is also dependent on federal price supports for its sugar industry. In 1988, more than 43 percent of the total value of crop sales in Hawaii came from the sale of sugarcane; moreover, 176,500 acres of the state's 255,000 total crop acreage is in sugarcane. The fact that so much of the state's agricultural base is in sugarcane, at a time when world prices are low and competition from foreign producers is great, has also increased the state's dependency on federal subsidies.

It is tourism, however, that dominates the state's economy. The extent of Hawaii's economic dependency is illustrated by the growth in the number of tourists, the increase in the tourist expenditures, economic activity generated by visitor-related expenditures, and the growing number of jobs supported by the visitor industry in Hawaii. In 1965, the total number of annual visitors to Hawaii was 686,925; by 1975, it had grown to over 2.8 million. The growth in tourism has been so great that by 1988, the number of visitors increased to more than 6.1 million per year (DBED 1989). Approximately 66 percent of the visitors in 1988 were from the US, while almost 20 percent were

from Japan (DBED, 1989). Large numbers of visitors to Hawaii also came from Canada, Australia, New Zealand, the United Kingdom, and other Asian countries. In 1988, the median length of stay was 4.9 days. Average expenditures per day for US mainland visitors was \$118.66; for Japanese tourists, the amount was \$586 per day (DBED, 1989). Total estimated visitor expenditures have also increased significantly. Visitor expenditures in Hawaii rose from \$595 million in 1970, to more than \$9.2 billion by 1988 (DBED, 1989). By comparison, total defense expenditures in 1988 amounted to only \$1.8 billion, while the value of raw sugar and molasses amounted to \$324 million. The total value of Hawaii's next-largest export product, fresh and processed pineapple, amounted to \$247 million (DBED, 1989).

Sugar and Plant Closings in Paradise

For much of Hawaii's history, sugar reigned as the main industry, until a combination of global and local factors led to its decline. The global factors which have contributed to sugar's decline include: lower foreign protection costs, protection of markets, changes in sugar production technology, increased use of non-sucrose sweeteners, and decreased demand for sugar. Factors within Hawaii which have contributed to its decline include: increased competition for resources (e.g., land and water) used in sugar production, growing labor costs, and the increasing costs of government environmental regulations.

At present, sugar is produced in some one hundred nations around the world. Major producers in Asia and the Pacific include China, India, Thailand, Indonesia, and the Philippines. Sugar is also produced in Australia, Fiji, Papua New Guinea, and Western Samoa. While Japan produces a small amount of sugar each year, countries such as Korea, Singapore, and Hong Kong produce no sugar at all. The leading producers around the world include Cuba, USSR, USA, Brazil, China, and Australia.

Virtually every country in the world imports sugar, and the leading exporters include the European Economic Community, Cuba, Brazil, Thailand, and South Africa. At the same time, many countries have established price controls, import barriers, and preferential trade agreements as a means of stabilizing sugar prices, or ensuring domestic production. The fact that sugar has become such a highly regulated commodity makes it difficult for Hawaii producers to compete at the international level.

The Sugar King

Hawaii's sugar industry also faces competition from states such as Florida, Louisiana, and Texas, where sugarcane is grown, and from nearly a dozen midwestern and western states which produce sugarbeets. Yet the greatest competition comes not from other sucrose producers, but from the advent of high-fructose corn syrup and other sweeteners (Kahane and Mardfin, 1987). High-fructose sweeteners can be produced not only from corn, but from wheat, potatoes, and

other starches. In addition, the growing popularity of artificial sweeteners (saccharin, aspartame, etc.) has also contributed to the decreased demand for Hawaiian sugar.

When sugar plantations began to close down in the 1970s, the economic, social, and psychological impacts were similar to those of plant closings in other US cities. The closing of one Big Island plantation is a case in point. When Castle and Cooke announced in 1971 that the Kohala Sugar Company would be closed in 1973, it caused a shock wave which rippled through both the Big Island community and political circles in Honolulu. The prospect of losing 500 sugar jobs threatened the very survival of the remote Big Island community. The 1971 state legislature adopted a resolution requesting the governor to appoint a task force to "save" Kohala sugar. The governor appointed a task force, and the 1972 session of the legislature appropriated nearly \$5 million for economic planning and development activities. The county added nearly two million dollars in additional funds. The idea was to stimulate alternative economic activities through training and low-cost loans. By March 1975, 192 jobs had been created in five companies supported by low-cost loans (Kohala Task Force, 1975). However, the task force was soon mired in controversy and conflict-of-interest charges involving members of the task force. Many of the companies subsequently failed. Some of the Kohala residents relocated and many eventually found employment in the resort developments in West Hawaii, albeit at hourly wages much lower than agricultural workers received.

The economic and psychological effects of plantation closures are more localized and less dramatic today than they were in the 1970s. Sugar is generally recognized as an industry in decline. Direct and indirect employment in sugar amounts to only 2.8 percent of all employment statewide, although it accounts for nearly 10 percent in Hawaii County and 15 percent on Kauai (Plasch, 1989).

The decline of sugar and pineapple represents the passing of an era in Hawaii, an era in which numerous small towns existed only because of the acres of green cane land that surrounded them. It has also raised fundamental issues about land policy in the state. Protection of prime agricultural land has long been the centerpiece of state land policy. Prime agricultural land, it has long been argued, is a scarce and valuable resource that may be needed for other agricultural uses even if it is not currently needed for pine and cane. Moreover, urban uses, the primary competitive use on Oahu, represent an irreversible commitment for all practical purposes. Agricultural land has been afforded some protection by Hawaii's 1961 state Land Use Law, which established four land use districts and made conversion of land from Agriculture, Rural, or Conservation district to Urban district subject to approval by a nine-member commission appointed by the governor (Hawaii Revised Statutes, 205). Another law affords substantial relief from land taxes to agricultural operators who dedicated their land to agricultural use, for periods of at least ten years.

State officials, eager to maintain some semblance of economic diversity in the face of the decline of plantation agriculture, first sought to promote "diversified agriculture" as an alternative. However, of the 90,000 acres withdrawn from sugar and pine since 1970, most has been used for

grazing or lies fallow (Plasch, 1989). About 21,500 acres of former plantation land are in macadamia nuts, and another 6,500 acres in export crops such as papaya, guava, flowers, and coffee.

The state's efforts to protect prime agricultural land have been severely criticized by the housing industry. Protection of agricultural land, it is argued, has led to shortages of developable land and high housing costs. One analyst has estimated that the cost of protecting prime agricultural land on Oahu is \$20,000 per home (Plasch, 1989). For state officials, the issue is not so much whether sugar land should be preserved, but, rather, how much land should be redistricted for urban uses, where new urban development should occur, and how environmental impacts should be minimized. Managing urban expansion on Oahu, in the wake of declining sugar, has been complicated by several factors. First, some of the agricultural lands that have been proposed for urban expansion are leased by Oahu sugar, and are still part of a viable sugar operation. Second, some of those proposing additions to the Urban district are property-development subsidiaries of sugar and pineapple companies. This creates a dilemma for state officials. Approval of all such applications means loss of effective coordination of urban expansion, and potentially higher infrastructure costs. Denial of some applications, however, creates a zero-sum contest among politically and economically powerful landowners. Third, city and state officials currently are at odds about which land units should be approved. Finally, not all the applications are for housing. Japanese investors seek several tracts for golf courses. Just how golf courses should figure into the urbanization equation is proving to be a particularly vexing policy issue.

HAWAII AND TOURISM

The growth of tourism in Hawaii is a post-World War II development. The first hotel, surprisingly enough, was not built in Waikiki, but rather on the island of Hawaii (near the Kilauea Volcano) in 1866. A few hotels were built in Waikiki at the turn of the century; the most notable were the Moana Hotel (1901) and the Royal Hawaiian (1927). Hotel accommodations have grown significantly over the past forty years. In 1950, there were only 2,000 hotel rooms in Hawaii, but the number had grown to 9,500 in 1960, then to 30,300 in 1970, reaching 55,700 in 1980, and to over 69,000 in 1988 (Chamber of Commerce, 1989). While the growth of tourism was not necessarily caused by agriculture's decline, there are some important connections between these two industries. Many of the plantation owners have diversified into hotel and resort development as the sugar industry has declined. Moreover, many of the resorts have been developed in areas where sugar plantations previously existed. Golf courses and second-home developments frequently surround the resorts.

Role of the State

As one of the recognized pillars of the state's economy, tourism has been directly and indirectly supported by state and local governments in Hawaii. In order to convert agricultural operations into a tourist plant, the state government (namely, the state Land Use Commission) has to reclassify land from agricultural to urban — or at least allow the lands to be utilized for golf courses or purposes other than agriculture. Moreover, much of the infrastructure— airport facilities, roadways, water systems, sewerage facilities, communication networks, and energy facilities, as well as numerous beaches, parks, and other public facilities — have been either directly provided or heavily subsidized by government. The fact that tourism is Hawaii's "golden goose" is recognized by the extent to which many state and local government policies are evaluated in terms of their impact on tourism. There has been a long history of government public works projects conducted in the name of tourism. The Ala Wai Canal, completed in the late 1920s, transformed a swampy area known as Waikiki into a place where many hotels were eventually developed. The completion of a new reef runway in Honolulu facilitated the arrival of the new generation of jumbo jets. Earlier, completion of the H-1 interstate freeway enabled faster access to Waikiki from the Honolulu International Airport. The current redevelopment of the Honolulu waterfront into a mixed-use complex, with commercial and retail space and tourist facilities, will further enhance tourism. Current efforts to develop the West Hawaii region (located on the Big Island) have involved massive public infrastructure improvements, as a means of providing a foundation for further resort development.

The importance of tourism to Hawaii is also reflected in recent efforts to build a convention center in Honolulu. Both the city and state governments have launched separate efforts to facilitate the construction of private convention centers in Waikiki. While the existence of dual plans may be a reflection of tensions between a Democratic state administration and a Republican mayor, the presence of both efforts suggests how important the issue of economic diversification (through attraction of more conventions) has become in the minds of public officials. Both plans involve granting certain exemptions to convention center developers in terms of height, density, bulk, parking, setback, and other land use considerations as a means of making the developments more economically viable. Arguably, a disproportionate share of these costs of increased density, congestion, loss of views, and the like will be borne by residents, rather than convention goers or others served by these developments.

Tourism as a Pacific Rim Industry

The "Golden Goose" image of tourism has been reinforced by the alliances between government and the hotel industry. Supporting agencies include a division within the Department of Business and Economic Development and the Hawaii Visitors Bureau, an organization created in 1903 which is largely responsible for promoting Hawaii as a tourist destination. In addition, the

University of Hawaii is one of a few US campuses nationwide which has a School of Travel Industry Management. There is a state Tourism Plan, and protection of the industry is one of the explicit objectives in the City and County of Honolulu's general plan. Recent legislation called for further studies of carrying capacity and public infrastructure needs as they are related to the provision of tourism facilities.

Hawaii's tourism industry is one in which much vertical integration has occurred. This involves the ownership and management of airlines, hotel rooms, and various concessions (tour companies, car rental agencies, golf courses, entertainment packages, commercial and eating establishments, and a whole host of other tourist activities) by parent companies such as Japan Airlines, Korean Airlines, or other companies. In these vertically integrated operations, the tourist purchases a complete package in which everything (airfare, hotel, ground transportation, meals, activities, tours, etc.) has been pre-arranged through an existing, fully integrated system. Ownership and management have been consolidated, and labor has also been integrated in terms of union representation (two unions represent virtually all of the organized service workers in Hawaii). Two broad classes of workers have evolved in Hawaii— an executive, professional, and management class (closely allied with owners); and a growing service class involved in the production of Hawaii's main export commodity, tourism.

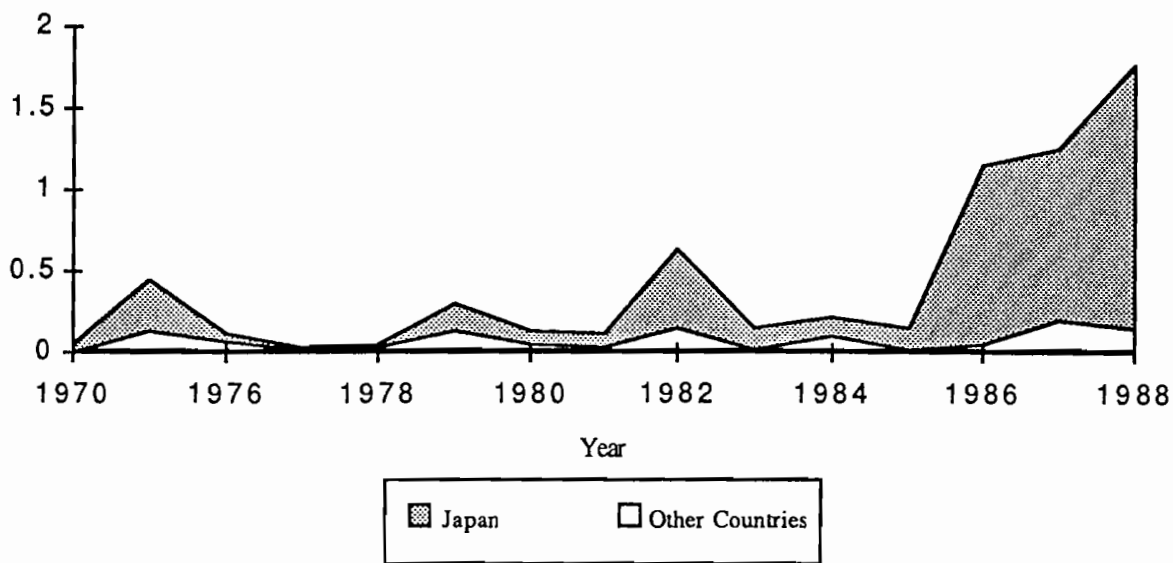
In addition to the creation of what largely amounts to a dual labor market, another prominent feature of the hotel and resort industry in Hawaii is the extent of foreign ownership. Approximately 70 percent of the visitor accommodations in the state are located on Oahu. Of these, approximately 90 percent are located within the 450-acre area of Honolulu known as Waikiki. An estimated 70 percent of the hotel rooms in Waikiki are owned by Japanese individuals or firms (Mason and Leonard, 1989). The Japanese purchased more than a dozen of Hawaii's hotels in 1986. The spending spree continued into 1987, when at least ten more of Hawaii's hotels were bought by Japanese. While appreciation of the yen is often cited as one of the main reasons for increased Japanese investment in Hawaiian real estate, several other factors contributed to a favorable investment climate. The list of owners and managers of Hawaii's hotel rooms reads like a who's who of Japanese companies and includes companies such as Azabu, Kyo-ya Co., ANA, Hasegawa Komuten, Otaka Inc., Mitsui Fudosan, Jowa Hawaii, Inc., Kokusai Kogyo, Matsuzato Hawaii, Tasayu & Taisei, K & S Enterprises, Yamada Pacific, Tokyu, Inc., T.A.A.S. Associates, Kokusai Jidosha, Seibu Railway Co., Obayashi Gumi, and others (Stern, 1988).

Hawaii's proximity to Japan has stimulated close investment opportunities for the Japanese which are more easily developed than anywhere else in the Pacific (Figure 8-2).

While Japanese companies have recently expressed interest in Guam, Micronesia, and other Pacific Islands, Hawaii— especially Honolulu— offers much more in terms of an established and urban environment. Finally, the relative ease with which the Japanese penetrated the hotel market

Figure 8-2

Foreign Investment In Hawaii, 1970-1988



was another feature which helped promote Hawaii as an attractive site for investment. It may well have been easier for the Japanese to invest in Hawaii than in their own country, given the scarcity of affordable properties and various taxes and policies regulating land speculation in Japan. The prevailing attitude in Hawaii was one welcoming investment, particularly in tourism, the state's main industry.

The recognition of tourism as Hawaii's number one industry has also helped to promote the concept of mega-resort development — that is, the development of large-scale tourist facilities complete with all amenities, recreational, cultural, and social. These new mega-resorts have become not only the basis for many planned communities of the future, but they have also replaced the plantation as the principal form of social and spatial organization in Hawaii.

Much of the financing came from Japan through two companies (Kumugai Gumi and TSA International, Ltd.) which formed a partnership with a local developer (Wood, 1987). Other investors from Japan paid an average of approximately \$3 million per acre for hotel sites clustered around the resort's lagoons. Pan Pacific Hoteliers, a subsidiary of Japan Airlines, has purchased several of the sites as well as the recently completed golf course. The other sites have all been purchased by Japanese corporations.

The Mega-Resorts

Mega-resorts being planned for Hawaii need labor service workers who are needed for the opening of the resort's hotels and other operations. Hawaii's new plantation, the mega-resort, comes complete with "affordable" housing for its service workers, to be located in adjacent communities. In the case of Ko Olina Mega-resort, the state and county governments have planned several new towns in close proximity to the resort. These communities are part of an effort to create a "secondary" urban center in the Ewa Plain. New town development is seen both as a means of reducing congestion and over-development in the primary urban center, and as a means of spurring the production of affordable housing. In order to accomplish these goals, vast tracts of agricultural land have been redesignated for urban uses. As a condition of state land use district approval, the Office of State Planning has argued for a requirement that 60 percent of the homes built in these new subdivisions be provided for people of low and moderate income, many of whom would eventually be employed as workers at the nearby resort complexes. County governments have employed similar measures to encourage the production of affordable housing in Hawaii. The shortage of affordable housing in Hawaii is well recognized. One of the neighbor island counties, Maui, has instituted a program which requires that hotel developers provide one employee-housing unit for every six new hotel rooms. Other counties are exploring the feasibility of similar "linkage" programs.

When examining Hawaii's development over the past decade, it has also become apparent that a prominent spatial change has been the substitution of golf courses for agricultural land,

leading one displaced small farmer to complain that Hawaii's residents "no can eat golf balls." Already, Oahu has some 28 golf courses, with over 40 more in various planning stages (City and County of Honolulu, 1989). More than half of the existing courses are either private or military courses; there are but four municipal courses in Honolulu.

Proponents of golf course development argue that the new courses make productive use of lands that would otherwise eventually become fallow. Opponents argue that turning productive agricultural lands into golf courses is short-sighted, only increasing the state's dependency on tourism.

The recent frenzy of golf course development has led Honolulu's Mayor to call for a ban on new course development and has also generated more scrutiny over who owns, builds, and eventually utilizes the golf courses in Hawaii. The recognition that golf courses are not necessarily a universally supported land use in Hawaii also suggests a fundamental concern about Hawaii's future. As Essoyan (1989) has reported, "underlying local concerns is the knowledge that in Japan, golf memberships are a rare and coveted privilege. Unlike in the United States, memberships in Japan are transferable and trade on the stock exchange for prices ranging up to \$1 million. The standing joke in Japan is that it's cheaper for Japanese golfers to fly to Hawaii to hit the links than trying to golf at home." Voices of protest against new golf courses are muffled not only by the various travel industry representatives who claim that they are necessary magnets for Hawaii's tourism-dependent economy but also by the various captains of industry who enjoy the sport. Golf courses have thus become symbolic of Hawaii's transformation into the post-industrial playground.

Boutiquification of the Housing Market

Another dimension of Hawaii's transformation into a post-industrial playground is evident in the housing crisis. Housing costs in Honolulu are among the highest in the US and getting higher. Honolulu's median price of \$275,000 is the highest of the US metropolitan areas surveyed in 1989. High housing prices are not a new phenomenon in Hawaii. In 1960, the Federal Housing Administration estimated that the average market price of residential sites in Hawaii was five and one-half times the US average, while average lot sizes were only half those of the US mainland. Partly because of housing costs, Honolulu's cost of living was ranked highest of the 24 largest metropolitan areas in the nation, but average annual pay for wage and salary workers is lowest (Pai, 1989). Homeowner-occupants comprise 41.6 percent of all households in Hawaii compared to 63.9 percent nationwide (Bank of Hawaii, 1990). Although housing affordability improved gradually from 1981-88, the situation worsened in 1989. The average monthly payment required for a new home in Honolulu rose from 33.9 percent of median family income to 44.7 percent (Bank of Hawaii, 1990). For renters the situation is even more grim. From 1981 to 1989, rents for single-family houses rose about 6 percent per year, but 10 percent a year for multi-family units (Peat-Marwick, 1989). Finally, the supply of rental housing in Honolulu is extremely limited. Although

a 5 percent vacancy rate in rental housing is considered "normal," Honolulu's current vacancy rate is estimated at 1-2 percent (Peat-Marwick, 1989).

Hawaii's housing crisis is largely home-grown. Restrictive land policies by state and county authorities is one of the most frequently cited causes of the situation (Bank of Hawaii, 1989). Hawaii has a system of state zoning which allows a nine-member commission to allocate land among four districts: Urban, Agriculture, Rural, and Conservation (Hawaii Revised Statutes, 205). The law, which was originally enacted in 1961 to protect prime agricultural land and to prevent scattered urban subdivisions, gives the state government a central role in determining the location and timing of Honolulu's urban expansion. Honolulu's planning and zoning controls in the Urban district add a second layer of control over the supply and location of urban land. But land supply alone is not sufficient to account for housing shortages. Since 1986, 5,129 acres have been added to the Urban district on Oahu, although annual land absorption rates needed to accommodate growth are only about 370 acres (Plasch, 1989). A second key factor is the concentration of land ownership in the state. State, federal, and county governments own 39 percent of the land in the state. Of the 61 percent of the land privately owned, the six largest landowners control 37 percent (State of Hawaii, 1989). The size and location of some of their landholdings make some of the owners extremely influential in determining the timing and direction of urban expansion. Because some of these owners also have major agriculture operations, real or implied threats to scale down or close sugar or pineapple operations increase their political influence with state officials eager to pressure some semblance of diversity in an economy so heavily dominated by tourism. This influence is used both directly in bargaining about land use district boundary amendments, and more subtly in shaping public discourse about land policy in the state (Lowry, 1989). Finally, public anti-growth sentiment has been both a major factor in shaping land policy generally and in reactions to specific requests for converting large parcels of agricultural land at the urban fringe, for housing or other urban uses.

THE ISSUES FOR HONOLULU: WHO OWNS HAWAII?

Until recently, foreign investment did not figure prominently in the housing debate. The amount of foreign investment in residential housing was small. Canadians from the Western provinces who invested in Maui condominiums were the most visible foreign investors, partly because they tended to concentrate in one area of the island and partly for their penchant for planting Canadian flags in the beaches nears their condos. (Hawaiian beaches are entirely publicly owned up to the shoreline.) Canadian ownership of beachfront condos on Maui, and purchases of luxury second homes and retirement residences around golf courses on all the islands, by affluent part-time and full-time refugees from the mainland, were the first symptoms in the housing market of Hawaii's transformation to a post-industrial playground. Instead of just visiting once a year, some

people, primarily North Americans, were beginning to live in Hawaii, either on a part-time or full-time basis. In urban Honolulu, these new residents, many of whom live in modest condos in Waikiki, are indistinguishable from Waikiki tourists. In the rural areas of Honolulu, recent migrants who purchased second homes or retirement homes around the Turtle Bay Hotel are more visible.

Japanese Investment "Tsunami"

Beginning in 1985, the types of foreign investors and the pattern of residential investment began to change. The rapid depreciation of the US dollar against the Japanese yen, beginning in February 1985, triggered Japanese interest in residential property. While Japanese corporate purchases of businesses and commercial properties continued to be the dominant form of investment activity, individual Japanese began to purchase residential properties in Honolulu. By the time the Japanese buying spree peaked in 1987, it was being described as a "tsunami" or tidal wave.

The volume of Japanese purchases in a short period, the concentration of the purchases in a few geographic areas, and hyper-inflated prices all contributed to the popular perception, reflected in news stories and letters to the daily newspapers, that the Japanese were somehow "taking over" the residential market. Between 1985 and mid-1987, individual Japanese investors purchased 95 single-family homes in Waialae-Kahala and 815 condo units in Waikiki, or 28 percent and 42 percent of total sales for 1987 (Essoyan, 1988). In another neighborhood, Hawaii Kai, the Japanese purchased 76 single-family homes (12 percent of sales) and 35 condominium units (9 percent) (Essoyan, 1988). In total, Japanese investor purchases accounted for 10-15 percent of total dollar value for single-family homes and condominiums sold in the state between January 1987 and March 1988, with 32 percent of Japanese real estate investment (approximately \$890 million statewide) funnelled into single-family home purchases (Ordway, 1989).

Japanese interest in residential real estate was generally concentrated in a few areas of Honolulu, principally beachfront properties and luxury condominiums in Waikiki, Waialae-Kahala, and East Honolulu. By early 1987, brokers were calling Kahala residents and knocking on their doors, claiming to represent buyers who were prepared to pay cash immediately (Miller, 1990). Other agents drove clients "shopping" up and down the street. If a certain property caught a buyer's eye, the agent would stop the car and make an offer on the spot (Yoneyama, 1990). One Japanese investor, Genshiro Kawamoto, bought about 170 homes around the island. The sellers, in turn, responded by pushing the asking prices to unheard-of levels. In Waialae-Kahala, the average annual appreciation rates were over 20 percent in 1986, and over 40 percent in 1987 (Miller, n.d.)

Reactions to Japanese Investment

The political reaction to Japanese residential investment has been mixed. The mayor of Honolulu blamed foreign purchases for escalating housing prices, property values, and ultimately,

tax assessments in and around neighborhoods of high residential turnover. He asserted that long-term residents who did not sell their properties were being penalized with increased tax pressures, and called for a sweeping ban on sales of residential, agricultural, and preservation lands to aliens (Essoyan, 1988). Most state officials, however, have been more subdued, pointing out that Hawaii is traditionally capital-poor and that foreign investment is merely supplementing or replacing investment from the US mainland.

Valid assessments of the actual impacts of Japanese investment on the Honolulu residential market are scarce. Japanese investment did drive up prices in a few select areas of Honolulu. However, the prices asked for most units in these areas prior to Japanese investment were already out of reach for more than 90 percent of Honolulu's residents. Japanese investors paid an average of \$855,000 for single-family homes between 1987-88. However, real estate experts point out that Japanese investment constitutes only a very small part of the total investment in residential real estate. These same experts point to a shortage of houses, resulting from restricted land supply and environmental controls, as the major cause. They point out that there have been previous dramatic increases in housing costs, such as in the late 1970s, when foreign investment was not a factor. The degree of impact of foreign investment on property taxes is also unclear. 1990 tax assessments for improved residential real property increased 13 percent island-wide, and more dramatically in the areas in which the greatest residential turnover occurred (*Honolulu Advertiser*, April 16, 1990).

Although the degree of impact of Japanese and other foreign investment on housing prices and property taxes increases is difficult to establish with validity, the relationship seems clear enough to most Honolulu residents. That relationship is visible in the prices Honolulu residents continue to ask in a much cooler real estate market, and in the fear of young couples that they may never be able to own a home of their own. Honolulu residents recognize much more clearly that they are now part of an international market, and that they may have to compete for homes with part-time and full-time foreign residents.

CONCLUSIONS: PLANNING THE POST-INDUSTRIAL PLAYGROUND

While Hawaii has always been dependent on outside resources, the globalization of capital has meant more uncertainties and difficulties for state and local planners. The deluge of foreign capital has created for some a sense of optimism—that the money, the projects, the mega-developments and glamour will keep on coming. Honolulu's skyline is spotted with construction cranes and new buildings. The effects of a booming economy— low unemployment, brisk consumer activity, and generally optimistic attitudes — are certainly present. For others, the high stakes game has produced a certain feeling of queasiness: feelings that the state is living on borrowed time, that the wheeler-dealers cannot possibly continue to spin-off countless new luxury hotels and condominiums, that two dozen more golf courses would be too many for even the most golf-hungry resi-

dents or tourists, and that the state needs to put more emphasis on more pressing problems such as housing, transportation, and public education. The challenge to Hawaii planners involves balancing the needs of residents with capitalists seeking returns on their investments. Maintaining a favorable investment climate while ensuring a high degree of local satisfaction with the quality of life in Honolulu are not necessarily mutually exclusive ends. However, as the state's reputation as a post-industrial playground expands, it is not difficult to foresee further widening of the gaps between residents and tourists — between the haves and have-nots.

Tourism and the dollars it brings have become Hawaii's lifeblood. Mega-resorts may have evolved into the new plantations of the post-industrial playground. The transition from an economy based on sugar and pineapple to one based on tourism has resulted in social strains. Social problems have resulted from the shift from traditional, male breadwinners to female employment as chambermaids, receptionists, waitresses, and other service workers. The effects of a "brain drain" in Hawaii, resulting from an excess of low-skill jobs and a lack of higher paying, stable jobs for the upwardly mobile, have been noted (Tanouye, 1985). More and more of Hawaii's residents are pushed into the service sector, having to cater to the needs of an ever-increasing number of tourists needing to be housed, fed, transported, and amused. Because tourism has become Hawaii's golden goose, its dominance over other industries has been assured through the alliances forged between government, developers, resort owners, and the travel industry. Whether it is a new convention center, or a transit system to service Waikiki, or the creation of a new town with "affordable housing" for the employees of a mega-resort development — tourism industry concerns are conspicuously present in virtually all major public policies and investment programs.

The decline of middle-income families, coupled with the in-migration of foreign workers, primarily from the Pacific Rim (Filipinos, Koreans, Taiwanese, Indochinese, and Pacific Islanders), willing to be employed in the service sector, has also meant destabilization of some communities in Hawaii. In addition to growing social service needs (health, education, employment training, etc.), there are also signs of social and economic tensions (youth gangs, drug addiction, increased crime, homelessness, etc.) which are indicative of an overall disintegration in the community's social support system. Making the connection between increased homelessness or crime, and the state's continued dependency on tourism or foreign investment, may involve stretching causal links too far; however, the sense of a loss of control and identity and the decline of a distinctly "local" culture are very real issues in the post-industrial playground.

The recent development boom in Honolulu has also had a very real impact on the physical appearance of the city. New buildings in the downtown and mid-town areas reflect construction styles, colors, bulk, height, and densities more suited to Los Angeles or Tokyo than Honolulu. Bold redevelopment plans in the Kakaako area call for the creation of "superblocks," in which many of the small, quaint, and familiar buildings will be replaced by modern, mixed-use developments

that together convey an altogether different feeling. The appearance of many new designer boutiques in the Ala Moana shopping center also captures the spirit of the new Honolulu: chic, international, and unabashedly expensive. In a city known for its attempts to maintain some balance between the natural and built environments, many of the recently built and proposed buildings seem to reflect a wholesale abandonment of urban design. In its quest to accommodate new investment, Honolulu risks forever losing its graceful, tropical ambiance. Maintaining a sense of place—that is, some semblance of the city's architectural heritage—remains a minor theme in the continuing debate about how best to manage growth.

A spirit of internationalism has certainly accompanied post-industrialism in Hawaii. Paul Hooper (1980) has argued that Hawaii's internationalist movement is "more than simply a series of loosely related undertakings. Rather, it is an authentic historical tradition and must be viewed accordingly." Advances in communications and travel have helped to make the world a much smaller place. More people have heard of Hawaii and, if trends continue, an increasingly large proportion of the world's population will come to visit. Hawaii's location in the center of the Pacific Rim has led several prominent public officials and corporate leaders to encourage efforts to market Hawaii as a bridge between East and West (Smyser, 1990). A recent conference organized by the governor on Hawaii's international role, the increase in the University of Hawaii's international activities, and the proliferation of Japanese colleges in Hawaii are part of these diversification efforts. Some in Hawaii are seeking to downplay its qualities as a playground, and emphasize its locational advantages, meeting facilities, language translation services, and amenable culture for both Americans and Asians. Being taken seriously—or at least being considered as more than a vacation spot—is a rub that comes with the territory.

In just a few decades, Hawaii has gone from being a collection of plantations and mill towns with a small-town feeling to a world-class international resort community. Hawaii still continues to attract a broad spectrum of visitors, from the budget-minded tour-package travelers to the international jetsetters seeking premium luxury accommodations. Hawaii conjures images of paradise, swaying palms, hula dancers, and beautiful beaches and is still renowned for its island hospitality. Yet, as hotels and pricey real estate continues to change hands from one outsider to another, as the state's middle class continues to shrink away, as the mega-resort becomes the new plantation of the post-industrial playground, and as the processes of globalization and economic colonization continue, one cannot help but feel that there is larger meaning to the statement, "no can eat golf balls."

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CHAPTER 9

TOKYO: A WORLD CAPITAL IN ASIA

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TOKYO AS THE CAPITAL OF JAPAN

Tokyo became the capital of Japan in the late 19th century when power was returned to the emperor from the shogunate. Ever since, Tokyo has been the center of political power in Japan, and has attracted many talented and ambitious as well as poverty-stricken people. In the early days of Japan's modernization, the western part of Japan, with Osaka as its center, had significant economic power. However, it gradually lost its relative strength to Tokyo over the years. In particular, the military build-up during the Second World War aided the growth of heavy industries in Tokyo and its surroundings. The heavy dependence on the US during the reconstruction phase after the war, and the subsequent close political and economic relationship with the US, also favored the growth of Tokyo.

The City, the Prefecture, and the Region

Tokyo can be defined in many ways. The narrowest small-area definition is the ward district of Tokyo, having about a 15-kilometer radius from the center. This will be called the City of Tokyo hereafter. The next is the Prefecture of Tokyo, which contains the ward district and stretches to the west, containing some rural and mountainous areas. There is also the so-called Tokyo Region, comprised of four prefectures: Tokyo, Saitama, Chiba, and Kanagawa. The largest Tokyo Region is usually called the Kanto Region or the Capital Region, which includes, in addition to the above four prefectures, the following four prefectures: Ibaraki, Tochigi, Gumma, and Yamanashi. As the commuting zone stretches out to neighboring prefectures, the Tokyo Region would be most appropriate when discussing metropolitan-wide implications, but when discussing central city functions, the City of Tokyo would be a more appropriate unit. See Figure 9-1 and Table 9-1 for graphic and numerical presentations of the regions.

Rapid Population Growth

By 1940, the Prefecture of Tokyo already had a population of 7.4 million (10.1 percent of the population at the time within the present national territory), a year before Japan went to war with the Allied Forces. The devastation during the war reduced the population to 3.5 million in 1945, but by 1955 the population exceeded the pre-war high and reached 8.0 million, 9.0 percent of the nation's

Figure 9-1

Tokyo Metropolitan Area

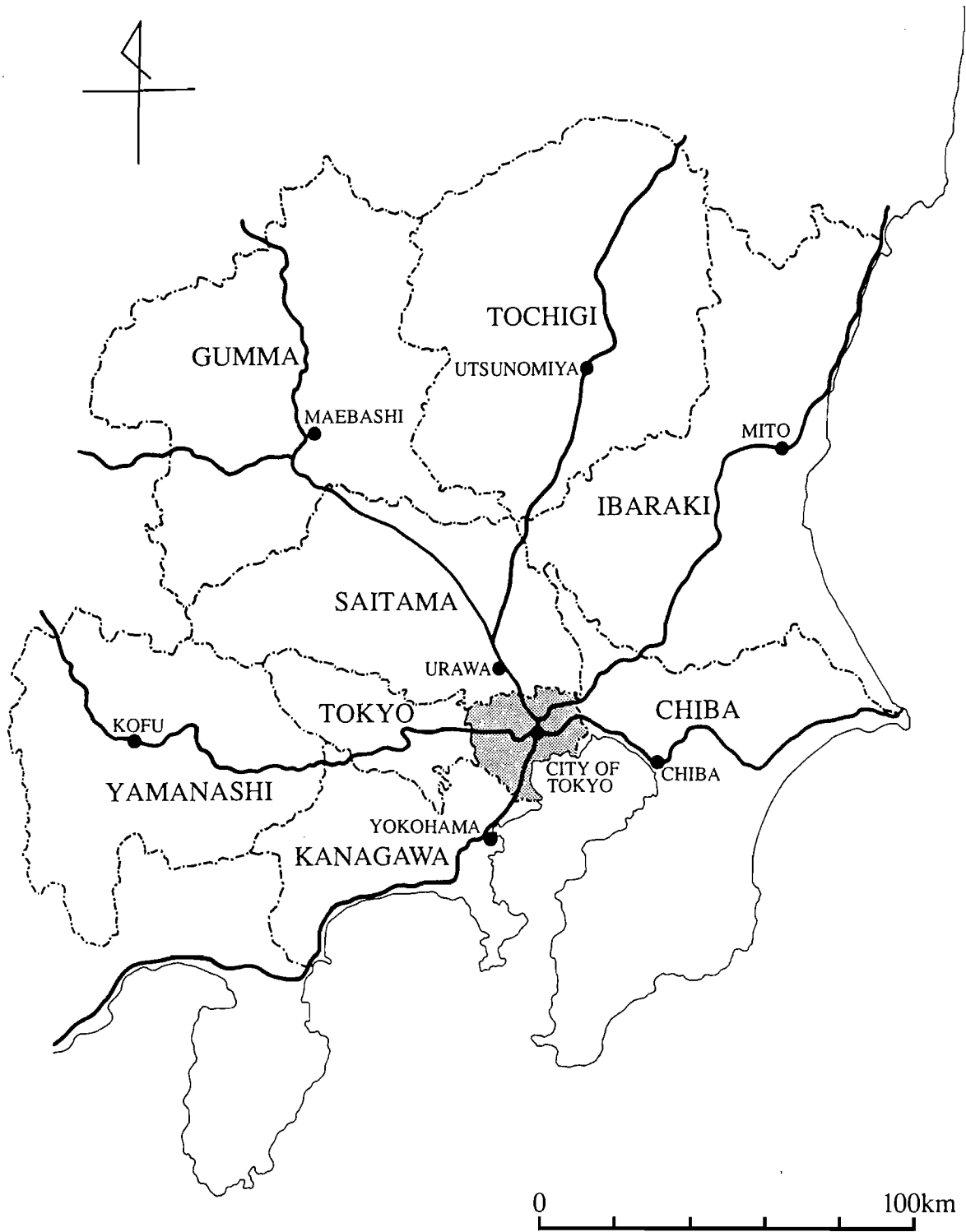


Table 9-1

Population and Population Density for Alternative Tokyo Regions

<u>Regions</u>	<u>Area sq.km.</u>	<u>Population in 1986 (1000 persons)</u>	<u>Population Density (person/sq.km.)</u>
City of Tokyo	602	8,354	13,877
Prefecture of Tokyo	2,164	11,893	5,496
Tokyo Region	13,515	30,601	2,264
Capital Region	36,842	37,994	1,031

Source: Statistics Bureau, Management and Coordination Agency, Statistical Yearbook, 1987.

total. It rose to 11.4 million in 1970, and since then the growth rate has slowed down. At that time, however, the neighboring prefectures of Saitama, Chiba, and Kanagawa began absorbing large numbers of migrants from Tokyo itself and other parts of the country and grew at high rates. By 1986, the Capital Region population had reached almost 38 million, and Tokyo city had over 8.3 million (see Table 9-2).

The recent decline in the growth rate of the Tokyo Region reflects a nation-wide decline in population growth. The region still maintains a relatively high growth rate compared with the national average.

The high growth of population in Tokyo is considered to be due to mainly economic factors. The Prefecture of Tokyo had the highest income per capita when such data were compiled in the early 1950s, and has maintained this position ever since. During the 1950s and 1960s, when the income disparity between Tokyo and the rest of the country was pronounced, Tokyo and its surrounding prefectures absorbed large numbers of immigrants. The trend subsided when the income disparity narrowed in the 1970s (Mera, 1986).

In the aftermath of the first oil shock, the Japanese economy stagnated in the 1970s, and Tokyo itself experienced slow growth and decline. In fact, the population of the Prefecture of Tokyo declined by 0.5 percent from 1975 to 1980, and the population of the City of Tokyo declined by 3.4 percent in the same period. At that time, the fear of further concentration in Tokyo subsided (Mera, 1986). In the US and Europe, the "counter-urbanization thesis" and the "life-cycle theory of cities" were proposed (Berry, 1978; Klassen and Paelinck, 1979).

TOKYO AS AN INTERNATIONAL METROPOLIS

Market Orientation, Deregulation, and Privatization

The 1980s were preceded by the ascendance of Margaret Thatcher to the premiership of the U.K. In 1980, Ronald Reagan was elected president in the US and took office in 1981. In the next year, Yasuhiro Nakasone became Prime Minister of Japan and the Western World moved significantly towards a market orientation. Deregulation and privatization became household words. The economy started moving ahead again.

With this background, the major industrialized countries started to coordinate economic policies. The US government pressured Japan to open up her economy, which was thought to be strong enough to withstand foreign competition. Among the sectors that became targets of liberalization, the financial sector was the first one which led to significant results. In response to deregulatory movements abroad, the Foreign Exchange Act was revised in 1980. But substantive deregulation was not effective until the US and Japanese governments reached an agreement on the future management of the financial sector in 1984. At that time, the Bank of Japan pursued a tight fiscal policy. As a result, many manufacturers sought markets abroad, and the trade imbalance started skyrocketing.

Table 9-2
Population Growth in Tokyo, 1945-1985

	<u>Pop. in</u> <u>1945</u> <u>(1,000s)</u>	<u>Pop. in</u> <u>1955</u>	<u>Decadal</u> <u>Growth</u> <u>Rate (%)</u>	<u>Pop. in</u> <u>1965</u>	<u>Decadal</u> <u>Growth</u> <u>Rate (%)</u>	<u>Pop. in</u> <u>1975</u>	<u>Decadal</u> <u>Growth</u> <u>Rate (%)</u>	<u>Pop. in</u> <u>1985</u>	<u>Decadal</u> <u>Growth</u> <u>Rate (%)</u>
Prefecture of Tokyo	3,488 (4.8)	8,037 (9.0)	130.4	10,869 (11.1)	35.2	11,674 (10.4)	7.4	11,829 (9.8)	1.3
Tokyo Region	9,369 (13.0)	15,424 (17.3)	64.4	21,017 (21.4)	36.3	27,042 (24.2)	28.7	30,273 (25.0)	11.9
Capital Region	15,244 (21.2)	21,457 (24.0)	40.8	26,964 (27.4)	25.7	33,621 (30.0)	24.7	37,618 (31.1)	11.9

() Share of total national population

Source: Statistics Bureau, Management and Coordination Agency, Statistical Yearbook, 1987.

Tokyo Becomes A World Finance Center

At the Group of Five meeting in September 1985, the governments of the five largest market-oriented economies agreed to let the value of the dollar fall. Within a year and a half, the value of the dollar fell from about 250 yen to 120 yen, less than half its previous value. Suddenly Japan became a very rich country. In 1985, the interest rate applied to large fixed-term deposits was freed, and in 1986, six foreign securities firms were, for the first time, allowed to become members of the Tokyo Stock Exchange. Many other foreign banks and securities firms sought to open branch offices in the center of Tokyo. Japanese securities firms also started expanding their staff. They engaged in almost 24-hour trading, linking themselves to the London and New York markets. The dimensions of change during the period can be demonstrated by Table 9-3.

It is particularly noteworthy to observe the changes from 1984 to 1988. The balance of payments surplus, only a few billion dollars in the beginning of the 1980s, suddenly increased to more than 80 billion dollars in 1986, and in correspondence to it, the outflow of long-term capital from Japan expanded to a level exceeding \$100 billion. Although the GNP in yen terms did not increase dramatically, net national assets (including tangible and non-tangible assets) increased by several times the annual GNP. This was due mainly to the appreciation of land and stock prices. This growth was combined with the appreciation of the yen, and the national wealth of Japan increased about 2.5 times from 1985 to 1988, surpassing that of the US.

As shown in Table 9-4, in 1984 the Tokyo Stock Exchange listed stocks and bonds valued at only 40 percent of the value held by the New York Stock Exchange. During the following four years, the picture changed dramatically. The value of stocks listed on the Tokyo Stock Exchange became more than 20 percent greater in 1988, and became the world's largest. The value of the London Stock Exchange became only a fourth of the one in Tokyo. This was made possible not only by the appreciation of the yen, but also by a rapid rise in the price of Japanese stocks. The sharp rise in stock prices appears to have been caused by the optimistic outlook of investors concerning the Japanese economy.

Tokyo has become an important world metropolis, not by its political leadership, but mainly by its economic strength. As the Japanese economy grew, Tokyo grew.

Focus for the Forces of Internationalization

When the nation grows, Tokyo also grows; but often at a faster rate. This is because Tokyo contains a greater proportion of high-growth sectors than its share of population. Tokyo has been strong in central management functions, but it has been expanding its role recently. In addition, it is the focal point of internationalization of the country.

Tokyo's share of banking, information services, research, and education is high and increasing. The Tokyo Region has 60 percent of the headquarters of corporations having capital stock of

Table 9-3

Major Economic Indicators of Japan

	Net National Assets (tril. Y) <u>(1)</u>	GNP (tril. Y) <u>(2)</u>	Exchange Rate at Year End (yen-dol.) <u>(3)</u>	Balance of Payments (\$ billion) <u>(4)</u>	Outflow of Long- Term Capital (\$ billion) <u>(5)</u>	National Wealth at Year End (\$ trillion) <u>(6)</u> <u>(7)</u>	
1982	3,125	269.6	242.49	6.9	11.9	n.a.	n.a.
1983	3,355	280.3	232.00	20.8	20.8	n.a.	n.a.
1984	3,622	297.9	251.58	35.0	54.2	n.a.	n.a.
1985	3,938	316.3	200.60	49.2	73.2	19.6	31.2
1986	4,533	330.0	160.10	85.8	144.7	28.3	34.0
1987	5,350	343.4	122.0	87.0	119.5	43.7	36.2
1988	5,993	365.1	125.90	79.6	121.4	47.6	38.9
1989	6,999	390.9	143.85	57.0	100.1	n.a.	n.a.

Sources: (1) & (2) Economic Planning Agency, *Keizai Yoran* (Economic Statistics Abstract), 1990, Tokyo.

(3) Bank of Japan, *Economic Statistics Monthly*.

(4) & (5) Statistics Bureau, Management & Coordination Bureau, *Monthly Statistics of Japan*, Tokyo, Statistics Association.

(6) & (7) *Nihon Keizai Shimbun*, Aug. 21 & Dec. 31, 1989.

Table 9-4**Comparison of the Tokyo, New York, and London Stock Exchanges**

	Market Value of Securities Listed in U.S. \$ Million					
	1984			1988		
	<u>Stocks</u>	<u>Bonds</u>	<u>Total</u>	<u>Stocks</u>	<u>Bonds</u>	<u>Total</u>
Tokyo	644,412	371,070	1,015,482	3,789,035	1,135,812	4,924,847
New York	1,529,459	1,021,791	2,551,250	2,457,461	1,561,031	4,018,492
London	236,321	240,910	477,527	558,390	1,269,917	

Sources: Land Agency, Shutoken Hakusho (White Paper on the Capital Region), 1990, Ministry of Finance, Printing Bureau.

one billion yen or greater, 40 percent of employees in educational and research institutions, 43 percent of the establishments, and 57 percent of the employees in the information service sector. An even more pronounced concentration is seen in the offices of foreign-owned companies. Currently, 86 percent of those offices are located in the Prefecture of Tokyo, and this percentage is increasing. In the banking sector, only 55 percent of bills and notes were traded to Tokyo in 1975, but this share went up to 83 percent in 1987. Similarly, in 1975, 50 percent of the corporate shares were traded in Tokyo, but this percentage rose to 68 percent in 1987 (Land Agency, 1990).

The Nature of the Renewed Growth

The annual population increase of the Tokyo Region consistently declined after 1971, from a height of 700,000 persons to less than 300,000 in 1980 (see Figure 9-2). However, due to increased migration in 1981, the annual population increase of Tokyo again began to rise. It should be noted that this renewed population growth, albeit for a brief period, occurred despite a continuing fall in the rate of the natural increase of population of the city. During this period, even the population of the Prefecture of Tokyo recorded an increase (Mera, 1988). This growth trend was reversed in 1987, when migration to Tokyo began to fall off.

The nature of growth during the 1980s can best be illustrated by the figures presented in Table 9-5. The renewed growth of Tokyo is mainly caused by a high rate of growth in the tertiary sector, and particularly by the financial and service sectors. In terms of occupational category of employment, the growth was led by a rapid increase in clerical, technical, and managerial workers. These do coincide. According to an analysis done by the Economic Planning Agency, which compared the growth of various subsectors of the service sector, the business service subsector grew fastest in the Tokyo Region from 1981 to 1986 (Economic Planning Agency, 1988). In particular, the growth industries within the business service subsector were information services, advertising, research, leasing, and professional services.

These trends indicate that the role of Tokyo as a command center of the nation, and perhaps of the Pacific Region, is being strengthened. As the economic power of Japan grows, means of communication are being improved and national boundaries are being weakened through deregulation.

EFFECTS OF INTERNATIONALIZATION ON TOKYO AS A PLACE TO LIVE

The effects of the internationalization of Tokyo, its emergence as the world's dominant financial center, and the centralization of national economic power in Tokyo has produced profound effects on the price of land, the quality of life, and the nature of development in the city.

Figure 9-2

Population Increase in the Tokyo Region

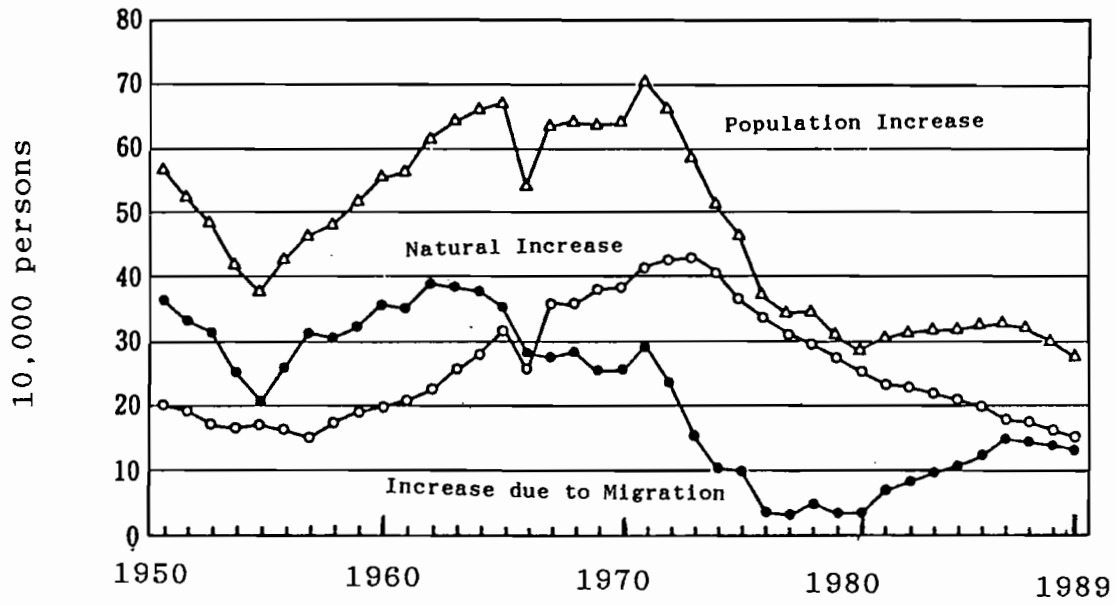


Table 9-5

Growth Rate of Employment from 1980 to 1985

<u>Sector/Occupation</u>	<u>Nation</u>	<u>Capital Region</u>	<u>Tokyo Prefecture</u>
Sectoral Breakdown			
Primary Sector	-10.6	-13.6	2.9
Secondary Sector	3.2	11.8	0.6
Tertiary Sector	8.5	18.0	11.0
Trade & Restaurants	6.5	14.6	6.7
Banking & Insurance	8.6	19.8	10.3
Real Estate	11.5	13.2	12.6
Transportation & Communications	1.8	6.5	5.5
Public Utilities	-4.6	-4.5	-7.4
Services	15.3	22.3	21.0
Public Services	-0.4	2.2	-1.7
Occupational Breakdown			
Agriculture	-10.4	-14.0	5.2
Production & Transportation	4.5	5.7	-1.1
Trade & Services	4.2	7.7	8.3
Clerical, Technical, & Managerial	10.3	17.1	13.2

Sources: Statistics Bureau, Management & Coordination Agency, *Japan Statistical Yearbook*, Tokyo, Japan Statistical Association, annual. Land Agency, 1990.

The Escalation of the Price of Land

Japan has been notorious for high land prices for many years, as is well documented by Edwin Mills, 1976. However, the largest increases have taken place only recently.

The first sign was a reduction in the vacancy rate of office space in Tokyo. It was low to start with, but in 1985 it went down to 0.2 percent from 0.4 percent in the previous year (Land Agency, 1990).

The price of commercial land in the center of Tokyo rose 30 to 45 percent from the previous year. The rate of increase further escalated to 50 to 60 percent a year later. The price increase spread to the other parts of the City of Tokyo, first to commercial areas, then to residential areas. By 1988, the price escalation spread to most parts within the Tokyo Region. By 1989, land prices were stabilized due to various governmental controls on land transactions (Economic Planning Agency, 1989). During this period, the price of land in the Tokyo area tripled. Some theorists regard this increase as a bubble, but some others consider it a reflection of the strength of the economy. The former school of thought is represented by Noguchi, 1989, and the latter by Mera et al., 1988, and Miyao, 1989. An elegant theoretical underpinning for the latter theorists is given by Boone and Sacks, 1989. They argue that the high price of Japanese land is due to the high rate of productivity increase by Japanese industries that is expected by market participants.

Since 1987, the price escalation has gradually spread to other major cities in Japan, such as Osaka and Nagoya. In addition, as a result of the resort boom started by the government policy of promoting domestic demand, many parts of the country have now experienced similar price increases.

The Quality of Life

Despite spectacular economic statistics, the quality of life in Tokyo is poor to miserable for most of the population. Commuting is one serious problem. In 1985, 61.5 percent of commuters to central Tokyo had to spend more than 60 minutes one-way, and this proportion is rising (Ministry of Construction, 1989). Moreover, commuter trains are extremely congested. Many commuters spend more than two hours one-way for commuting, which is done usually by walking, train or bus ride, transfer, train ride, and walking.

In addition, people in Tokyo live in small housing units. In 1983, the average floor space of a housing unit in the Prefecture of Tokyo was 54.5 square meters, in contrast to the national average of 80.3 square meters (Ministry of Construction, 1984). In other measures, Tokyo is not better off. Park land per capita in the City of Tokyo was 1.9 square meters, whereas it was 30.4 in London, 8.7 in Paris, and 11.7 in Rome in recent years (Ministry of Construction, 1984).

As well as the many hours workers spend commuting, many workers work long hours in the office. Recently, the five-day work week has become more widespread among corporations.

However, by and large, life in Tokyo is very much work-oriented, and the quality of life is left behind the apparent prosperity.

Development Projects

The private sector has been responding to the acute shortage of office space manifested by the rock-bottom vacancy rates and the high price of commercial land in central Tokyo. Table 9-6 presents statistics concerning accelerated construction activity in the City of Tokyo. At the current rate, office space will increase by 7 percent every year. However, construction activity increased threefold from 1981 to 1988.

A high rate of construction activity is expected to continue for some time for two reasons. First, there are large lots of vacant or vacated land held by the government that will be made available to the private sector. Second, there are large lots along Tokyo Bay that were used by heavy industries before, but are currently standing idle due to the relocation of the industries elsewhere as a result of the high price of land, environmental considerations, or business factors.

The privatization of Japan National Railways, in 1987, opened up substantial redevelopment opportunities within Tokyo, since the company owned many pieces of valuable land in Tokyo that had been underutilized. The Prefectural Government of Tokyo owns 448 hectares of reclaimed land in Tokyo Bay, close to the center of the city. It is designated as a sub-center of Tokyo and is planned to have a working population of 110,000 and a residential population of 60,000 when the planned development is completed. The total cost of development of this sub-center, which is often called Tokyo Teleport (as it will have a telecommunications center), is estimated to reach 4.14 trillion yen (US\$31.8 billion @ US\$1 = ¥139). Presently, those private firms that will lease lots within the sub-center are being selected by the Prefectural Government of Tokyo.

The city of Yokohama has been developing a 186-hectare waterfront area close to the center, called Minato Mirai 21. The land was previously used for shipbuilding, but was transferred to the city for the development of a new business center. It started development in 1983, and is planned to have a working population of 190,000 and a residential population of 10,000. The total cost of development is estimated at ¥2 trillion.

One technological and legal development is attracting attention. To overcome the difficulty of purchasing land for rail or highway right-of-way, the government is examining the feasibility of enacting legislation through which property ownership will be limited to a certain depth from the surface, such as 50 meters. When this legislation becomes effective, the land below that depth will belong to the public domain, and the government will be able to construct transportation networks. One expressway, linking the city center to Shinjuku, where the City Hall will be moved in 1991, will become the first of such developments.

Table 9-6

Office Floor Space in Stock and Additions in the City of Tokyo

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Office Floor Space in Stock	3,324	3,470	3,576	3,681	3,794	3,924	4,027	4,290	4,549	4,830
Net Addition to Floor Space	146	106	105	113	130	103	263	259	282	n.a.
Floor Space under const.	153	154	166	180	203	232	361	387	485	400

Source: Land Agency, 1990.

LESSONS LEARNED

There are many lessons that can be learned from the transformation of Tokyo that has been described above. It is a giant city full of contradictions, but also of promising prospects.

Rejection of the Life-Cycle Theory of City Growth

The life-cycle theory, developed in the late 1970s when large cities in Europe and the US started to show signs of decline, may have to be rejected on the basis of experience in Tokyo. The City of Tokyo was declining in the 1970s, but this trend was reversed in the 1980s. Thus, what determines growth or decline is not one of those variables commonly thought to be important, such as the population size or age of a city. Instead, it is more likely the economic function that the city is able to perform.

As has been described above, the rejuvenation of Tokyo in the 1980s took place mainly because of two factors: the globalization of financial activities worldwide and specifically in Japan, and the increased role of information-processing activities. Technological progress is certainly a factor behind them. However, institutional developments have also contributed to the changes. Specifically, institutional changes based on the conservative market-oriented economic policies, promoted by the leaders of some of the most economically important countries, led the world economy to a continued prosperity; as a result, it induced renewed growth in many of the world's largest cities (Mera, 1989).

The Increasing Concentration of Population and Power

Japan has a highly hierarchical society. The central authorities tend to determine even minute decisions in localities. As a result, many have migrated to Tokyo to participate in the decision process, or many organizations moved headquarters or established liaison offices in Tokyo to improve communication with the central authority.

The recent opening of the country through deregulation and liberalization of control has led to much greater interaction between Japanese businesses with foreign corporations. Many corporations have come to Japan to do business. Tokyo has become the focus of such international activities. Thus, its economic role has been strengthened.

Another development is taking place with respect to increased use of information-processing by computer as a tradeable good. As it is becoming easier to compute and analyze a large quantity of data anywhere in the country, Tokyo is taking a greater share in information-processing and its use for business and administrative decisions.

These two recent trends are aiding the growth of Tokyo, not only in terms of employment, but also in decision-making power. The income level of Tokyo has increased more rapidly than most other parts of the country since 1980 (Mera, 1988). This is a reflection of its increased power.

Failure of City Planning

City planning has been practiced in Tokyo since 1919, when the first city planning law was enacted. The law made various provisions, but the principal instrument of control was land-use control through zoning. Use zones were determined, not on the basis of what the city should become in the future, but on the basis of what existed at the time of decision. As a result, these plans worked to maintain the status quo, within the area where development existed. As the city grew in size, the city spread outwards.

An overly optimistic view about the physical development of the country also prevented city planning from becoming more rational. The four successive National Development Plans, the first of which was approved by the national government in 1972, all had a consistent theme of decentralizing urbanization away from Tokyo and Osaka. Each time the plans were contradicted by more than anticipated growth. As a result, Tokyo has had to accommodate greater population than planned for. For city planning to be successful, plans should be based on more realistic population projections.

Furthermore, planned infrastructure development has been consistently delayed. The principal reason has been the difficulty of land acquisition. Planned new highways and highway-widening projects have been opposed by some citizens. In such cases, the local and national governments have been unable to do anything but wait. Although the government has the power of eminent domain, it rarely exercises it. The government is soft to specific opposition groups. As a result, the general public has had to suffer the consequences.

In terms of land-use control, the government did not allow buildings taller than 30 meters high until the late 1960s, due to fear of earthquake damage. Structural engineering improvements led to the relaxation of this height limit. However, the city was already built up and horizontally spread. Presently, high-rise buildings are still rare. The combination of regulations on floor area ratios, sunshine controls, and road-width controls, coupled with fragmented land ownership, is making construction of high-rise buildings difficult. One implication is the spreading out of residential development and heavy loading of commuter trains.

When the Center of Tokyo is compared with that of New York City, the degree of dispersion in Tokyo will be understood. The two central wards of Tokyo, Chuo and Chiyoda, together have an area of 22 square kilometers. This is comparable to the area of Manhattan south of Central Park, which is 24 square kilometers. In the Center of Tokyo, 1.26 million people work and 180,000 persons reside, but in Manhattan, 2.12 million people work and 520,000 persons reside (Mera et al., 1988). The high intensity of land use in Manhattan enables a greater number of workers and a larger residential population to be accommodated. As a result, commuting time is less, and many can even walk to work.

The planners and administrators of Tokyo are not prepared to face the more fundamental problems of the city.

Technological Breakthroughs

Technological improvements are certainly contributing to the improvement of urban functioning in Tokyo. The construction of high-rise buildings and deep underground transportation networks has become possible. The filling of a part of Tokyo Bay has contributed to the expansion of buildable area, a welcome addition when the land is so scarce near the center of the city.

Nonetheless, technological improvements tend to be used as alternatives to serious institutional reforms. If the process of land acquisition for public purposes is regularized, the necessary infrastructure could be built more cheaply and quickly. Preoccupation with technological breakthroughs should not divert attention away from serious institutional reform.

INTERNATIONAL DIALOG ON URBAN POLICY

Urban policy in Japan had been eminently a domestic policy. However, this situation is changing. In order to solve mainly the balance of payments problem between the US and Japan, governments of both countries opened a series of meetings in 1989 called the Structural Impediments Initiative (SII). The consultations under SII do not only cover trade, but also related issues. The US has been insisting that Japan opens its domestic market by terminating discriminatory business practices and lowering the cost of entry to the market. The Japanese side is calling for the US to reduce public spending and to increase taxes to reduce the deficit, in order to provide incentives for saving.

In this context, the land policy and public investment amounts in Japan attracted attention. The US government proposed a series of land policy changes. One prominent proposal was to strengthen the property tax so that land will be utilized more efficiently, and the supply of urban land will be increased. In addition, the US government proposed a large increase in the amount of public investment in Japan to increase domestic demand, as well as to improve the quality of life. These proposals are also promoted by some urban scholars in Japan and are welcome by most observers. The necessary policy changes that have not been realized in the past may now have a better chance, as we have gained a powerful negotiator.

In any case, urban policy has been elevated to a topic discussed in formal inter-governmental consultations. This new sphere of discussion will attract the attention of a larger number of concerned experts and the general public, and may lead to better results.

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CHAPTER 10

OSAKA AND THE KANSAI REGION OF JAPAN

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INTRODUCTION

The growth of Pacific trade and investment linkages has brought with it a shift in economic fortunes for many of the cities involved (Douglas, 1987). Japan has been a major player in the post-war integration of the Pacific Rim, and it is hardly surprising therefore to find a sorting out of economic functions among its cities. At the present time, the country is in a period of transition regarding its trading and investment relations with the region. For instance, due to trade friction and currency revaluation in the 1980s some Japanese manufacturing capacity has gone offshore, both to the US and the less expensive production centers of the West Pacific (e.g. South Korea and Taiwan). In addition, Japan itself is moving rapidly toward an information-based economy (Economic Planning Agency, 1988), and most employment growth is currently taking place in the service sector — especially in advanced producer services, such as finance and business services and information industries (Edgington, 1990a). All these changes have had ramifications for Japan's industrial cities and regions.

In the context of this rapid restructuring, the rise in stature of Tokyo to a "world city," alongside the major financial centers of New York and London, is well documented (Rimmer, 1986; Douglas, 1988), and Tokyo's role and its development are discussed in Chapter 9 of this volume. What is perhaps not as well known is the adverse affect of these processes to date upon Osaka, the nation's second-largest industrial and commercial city and the center of the Kansai region in western Japan (see Figure 10-1). The intention of this chapter is to discuss the current position of Osaka and its region; the nature of its links with the Pacific; the changes leading to its economic stagnation in the 1970s; and the pro-active policies and programs set in place during the last ten years.

The chapter begins with a discussion of Osaka's history of industrial development. Then follows an analysis of Japan's international trade data, which identifies Osaka's relative advantage in conducting commerce with the rapidly emerging Asia-Pacific group of countries. The chapter also reviews the major strategic infrastructure projects presently planned or underway in the City of Osaka and surrounding Kansai region.

Figure 10-1

The Kansai Region of Japan



OSAKA AND THE KANSAI ECONOMY

The Kansai region, located just west of the center of Japan, with the Sea of Japan in the north and the Pacific in the south (Figure 10-1), consists of an area of 37,000 km². At its center lies the Osaka Metropolitan Area, an urbanized district which includes the many towns and villages within a 50-km radius from Osaka City proper. The significance of this area is due to a number of factors.

It comprises one of the largest built-up areas in the Pacific region, with a population of 16.5 million and a working population of about 9.9 million (Comprehensive Planning Bureau, Osaka Municipal Government, 1988). As of 1985, Kansai had an economic potential of 50 trillion yen (roughly US\$350 billion), equivalent to about 2 percent of world GNP, and comparable in size with that of Canada (Economics Affairs Bureau, Osaka Municipal Government, 1989). Kansai constitutes the birthplace of Japanese civilization and history (Osaka Municipal Government, 1981), and the city of Osaka flourished as a port gateway through which culture, goods, and technology were introduced to Japan from China and the Korean Peninsula (Economic Affairs Bureau, Osaka Municipal Government, 1988). The four major cities of Kansai— Osaka, Kyoto, Nara, and Kobe— form a multicentered urban structure, each with qualitatively different cores; this is a striking contrast to the Tokyo Metropolitan Area with its centralized single core system. Osaka's characteristic activity is in the field of commerce and industry, while Kyoto is a cultural and educational city. Nara is a religious and tourist center; Kobe, on the other hand, is a major port with a high concentration of foreign trade and domestic shipping business (Osaka Municipal Government, 1978).

Pre-World War II Industrial Growth

From the beginning of Japan's industrialization, Osaka continued to grow as a metropolis of foreign trade and industry, developing major trade links with Asia-Pacific countries and having the textile spinning industry as its nucleus (Osaka Prefectural Government, 1989). In the 1930s, Osaka called itself the "Manchester of the Orient" (Osaka Prefectural Government, 1987). At that time the City had a distinct role as the center of national industry and commerce, in contrast to the role played by Tokyo as the political center of the country. Investment in its harbor and metropolitan railroads supported the gradual process of industrial development from light to heavy and chemical industries. This growth of industrial output and large-scale harbor construction expanded the total trade of the Port of Osaka, making it one of the three major ports of Japan (together with the Port of Kobe and the Port of Yokohama)— and consequently of the Pacific (Osaka Prefectural Government, 1981; Onishi, 1983).

Post-World War II Decline

Industry in Osaka suffered a severe blow as a result of the Second World War, production dropping down to about 30 percent of its pre-war level until a recovery was made in the 1950s.

Up until 1955, the textile industry was still the main type of industry, but after that time the position changed because of the remarkable growth of heavy industries such as steel and chemicals. In the main these were located along the region's coastline, in areas such as Senri and Senboku, which were both established as land reclamation projects during the 1960s (Takahashi, 1981). Osaka also raised its international image significantly through the successful hosting of the Japan World Exposition in 1970, the preparations for which contributed greatly to regional development in the Kansai district (Osaka Prefectural Government, 1975). In fact, the staging of this event probably marked the peak of Kansai's relative prosperity within Japan.

After this time the City faced several impediments to growth. These included, first, a hesitation to embrace industrial diversification after the oil crises of the 1970s, including the structural changes required to shift from basic resources industries to "knowledge-intensive" industries. Second, there was a lack of overall civic sense necessary to engage in strategic planning for the entire Kansai region. Finally, there was an inability to realize the strong interdependence between growth in the service economy, internationalization, and culture and amenity at the local level (Osaka 21st Century Association, 1987).

In fact, Osaka's economy was hard hit throughout the 1970s, due to both the impact of two oil crises and worsening environmental deterioration as a result of rapid urbanization. This brought about two economic problems which began increasingly to show through by the end of the decade. The first problem was a marked fall in the share of national manufacturing activities. In the 1960s and the 1970s, industrial employment and number of enterprises in the Osaka Prefecture declined overall, and this process continued thereafter. In 1970, Osaka was responsible for 36.5 percent of Japan's exports, 23.3 percent of its manufacturing output, and 15.2 percent of its new factories. But by 1985, Osaka was generating only 23.4 percent of exports, 19.1 percent of manufacturing output, and 9.7 percent of new factories (data provided by the Ministry of International Trade and Industry, Osaka Branch), leading to the decline in Osaka's attractiveness for new industrial investment. New plant expansions in the built-up area were restrained due to restrictions imposed by national legislation — made in order to curb the further growth of industry in large cities. At the same time, industrial development outside of Osaka flourished, along with national decentralization policy and the promotion of factory relocation (Osaka Municipal Government, 1978).

Structural Impediments and Change

A more underlying cause, however, was the industrial structure of the city, which focused predominantly on material-processing industries with low growth prospects — such as textiles, pulp and paper, steel and other metals, and chemicals. An analysis comparing the recent industrial structure of Osaka with that of Tokyo found that electronics and automobile equipment — the growth industries of the early 1980s — accounted for a significantly smaller portion of industry in Osaka

(Edgington, 1990b). Moreover, in terms of per capita indicators, Osaka came far below the level of Tokyo in the area of Japan's fledgling computer software industries (Takahashi, 1981).

A second problem concerned the dramatic loss of higher-order management functions in Osaka since the war. To a degree this has reflected the relative rise of regional cities in western Japan (such as Hiroshima and Okayama), which acted to draw off some business support functions that Osaka used to perform (Osaka Municipal Government, 1981). More important, though, was the centralization of nearly all of Japan's international and national functions in Tokyo after 1945 (Kawashima, 1980). While Osaka's industrial and commercial activities continue to be supported by a large number of local financial institutions, these have tended to be branch offices of Tokyo-based corporations. It is true that two of the nation's four highest-ranked city banks have their headquarters in the city (Sumitomo Bank and Sanwa Bank); yet both of these banks have taken steps to move their planning and international functions to Tokyo (Koizuka, 1987).

Consequently, employment creation in Osaka and the Kansai area fell behind that of the Tokyo capital region (Kanto region), reflecting the relative decline in both production activities and head office management functions during the last 15 years. For instance, while the employment increase of Kanto in ten years, from 1975 to 1985, reached 3.32 million (+21.0 percent), the increase in Kansai was only 760,000 (+7.8 percent) (Japan Statistical Yearbook, various years). In particular, the Osaka area was unable to keep its share of service jobs. Thus, at a time when Japan was shifting increasingly towards an economic structure base upon office services and information services, Osaka and Kansai together could only manage an increase of 562,000 jobs (+33.3 percent) in finance and other services, compared with a similar increase of 1,367,000 jobs (+42.7 percent) in the Kanto region of Japan. Since 1985, the Kanto region has reinforced its role as the center of Japan's service industries and prospered under the economic shifts associated with the high yen (Douglas, 1988). Reflecting these changing patterns of employment, it is felt that Osaka now has only a comparatively small class of managers, professionals, and technical specialists necessary to shape the future direction of the economy (Osaka Municipal Government, 1981).

On top of this, the rapid rise in the value of the yen after 1985 (called *endaka* in Japan) had a tremendous impact on Osaka's economy, damaging in particular the export competitiveness of small and medium enterprises in the more traditional industries such as textiles (Osaka Prefectural Government, 1989). In contrast to the national trend away from exports as the main source of economic growth, Osaka and Kansai continue to rely heavily on this sector— about five percentage points more than their share of GNP, making the region vulnerable to any further appreciation of the yen (Smith, 1988). This is due not only to the dominance of heavy industry, since Osaka's three large consumer electronics firms (Matsushita, Sanyo, and Sharp) are all export-oriented companies. For example, Sharp's export ratio was 53 percent in 1985, and in 1989 was 48 percent (interview with M. Nishimura, International Business Group, Sharp Corporation, Osaka, June 1989).

All these problems have given rise to the need for industrial restructuring in the Kansai region, moving away from capital intensive to high-value-added, knowledge-intensive industries (Edgington, 1990b).

OSAKA'S LINKS WITH THE PACIFIC RIM

The story of modern Osaka needs to be examined in the context of its international linkages, especially those with countries of the Pacific Rim.

A Long History of Trading

Because of its location in western Japan, this district has since feudal times maintained contact with Asian countries, involving the exchange of people, culture, and trade. This tie was further strengthened in the first half of the century when Korea, Taiwan, and parts of mainland China fell under direct Japanese control.

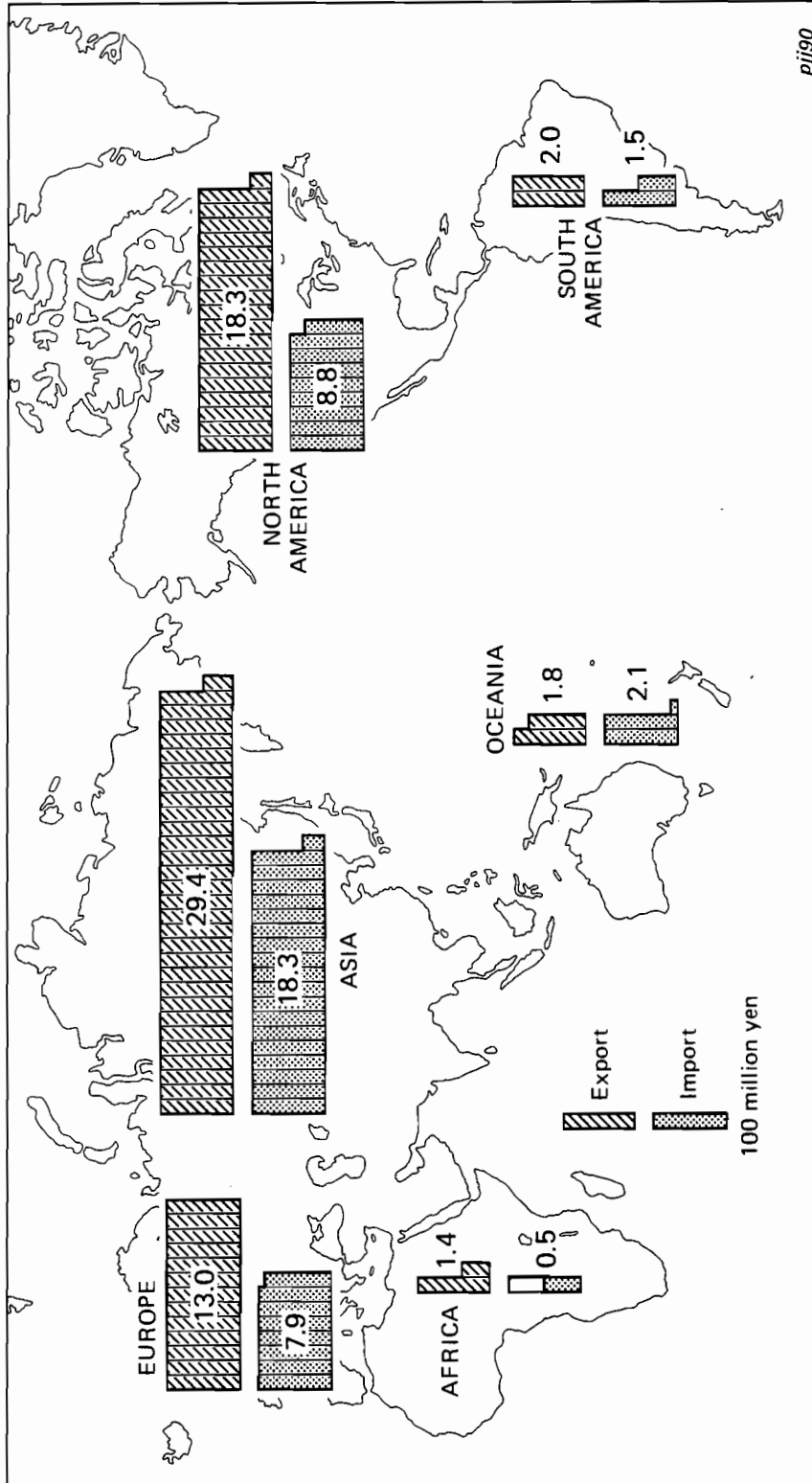
Before World War II, the share held by Osaka and Kobe (together known as the Hanshin industrial district) accounted for well over one-half of the nation's trade with Asia for both imports and exports (Osaka Municipal Government data). However, this had declined to less than one-third of the national total by 1987, although Hanshin as a whole still had a significant relative concentration of national exports bound for Asia (28.9 percent of Japan's total). The United States is currently the district's single most important trading partner (accounting for 25.3 percent of exports in 1987 and 19.3 percent of imports) but, as in pre-war years, the West Pacific remains the vital trading region, accounting for nearly 40 percent of the foreign trade through the Ports of Osaka and Kobe (see Figure 10-2).

This analysis may be extended by comparing Hanshin with the Keihin industrial district (centered on Tokyo and Yokohama). The Hanshin district's share of national exports peaked at roughly 60 percent just before World War II, when it was about twice that of the Keihin industrial district. In the post-war period, however, following Japan's loss of its Asian colonies (e.g. Korea and Taiwan), and a reorientation of trade across the Pacific to North America, this figure fell to only one-fifth of the national total. The Keihin district, on the other hand, managed to hold its share— about one-third of the national total— even in the face of the rapid growth of trade from ports elsewhere in Japan (data supplied by Osaka Municipal Government). As the total percentage of exports and imports through the Osaka-Kobe ports has decreased year after year, the distribution functions of the Osaka Metropolitan Area have declined. This has caused many Osaka-based sogo shosha (general exporters-importers such as Sumitomo Trading Corporation) to move many of their headquarters functions to Tokyo (Koizuka, 1987).

A more detailed breakdown reveals Hanshin to have significantly high shares of national trade with the newly industrializing economies in Asia (e.g. 34.0 percent of total Japanese exports

Figure 10-2

Exports and Imports of the Ports of Osaka and Kobe (million yen), 1988



Source: Osaka Municipal Government.

to South Korea in 1987, 36.6 percent of national imports from Hong Kong, 33.4 percent of all imports from the PRC, and 34.0 percent of all imports from both South Korea and Taiwan) (Osaka Municipal Government data). For these rapidly growing Asian-Pacific countries, trade with the Kansai region is greater than anywhere else in Japan.

Geographic and Product Reorientation

Apart from a geographic shift in trade, the recent period has also been marked by a reorientation in the types of exports concerned. Thus, when Japan was predominantly an exporter of textiles (i.e. up to the 1960s), most of which were produced in Osaka, it was only natural that the Osaka and Kobe ports would dominate the national export picture. In the last 25 years, however, machinery and metals have topped the list of export items, and this has contributed to the fall in the share of Japan's overseas trade through Hanshin's ports. Even so, Kobe and Osaka continue today to account for over three-quarters of Japan's total exports in the textiles sector (Comprehensive Planning Bureau, Osaka Municipal Government, 1988).

In contrast to a falling away in regional exports, a greater number of "product imports" from countries such as South Korea (i.e. imported goods excluding raw materials) have flowed through Kansai's ports. Thus, from 1985 to 1987, the value of imported products in the Osaka-Kobe region grew by about 6 percent. As a result, the region's share of Japanese national product imports increased from 40 percent to 52 percent in the same period and, significantly, the rise in product imports was greatest from Asia. On top of this, Osaka's direct overseas investment in the Asian region ranked highest in Japan, by number of cases, indicating the strong links that Osaka-based enterprises have with this area in the off-shore manufacturing of textiles, as well as electrical and general machinery (Business Innovation Division, Osaka Prefecture Government, 1989).

CURRENT POLICIES, PROGRAMS, AND PROJECTS

An appreciation of Osaka's deteriorating trading and industrial position emerged in both public and private reports during the years following the "oil shocks" of the 1970s (Osaka City, 1981; Takahashi, 1981), and recommendations were made calling for a new orientation in local economic policy. This shift in attitudes and a new policy consensus grew out of the realization that Osaka would have to move towards high-value added and knowledge intensive industries— a fact which reflected the very real competition the City was facing from the Asian NIES (newly industrializing economies) in its traditional industries (e.g. steel and textiles). In the post-endaka period (i.e. after 1985) the currency realignment further eroded Osaka's industrial competitive strengths.

On the one hand, then, the City was judged to need upgraded technology, communications, and other economic infrastructure. On the other hand it required an external environment which corresponded to the concept of an international and information-oriented city. The challenge

presented itself for Osaka to change from heavy industry to biotechnology and computers— and to rebuild its traditional ties with Asia-Pacific by developing as a truly international metropolis.

Beginning with long-term comprehensive reports and analyses drawn up in the late 1970s and early 1980s (Osaka Municipal Government, 1978; Osaka Prefectural Government, 1981), strategic plans and projects to prepare Osaka for the 21st Century are now underway which reflect the new situation. In 1982, prefectural and local government interests began to formulate a vision for Osaka's future development which was later formalized into a plan of action. Following Osaka's 100th anniversary of modern city government in 1983, an association of regional and local government, together with local business groups, combined to implement "The Osaka 21st Century Plan" (Osaka 21st Century Association, 1987).

The National and Regional Policy Framework

The Japanese national government has also realized the importance of reviving the Kansai region's economy on national grounds. The 4th National Comprehensive Development Plan of the National Land Agency (Yonzenso), released in 1987, sets out an important role for Kansai in the development of the nation as a whole (Edgington, 1990b). Under the Plan, the region is set to independently perform crucial national and international functions complementing those of Tokyo (National Land Agency, 1987). Together with the local governments concerned, the National Land Agency formed a shared vision for the developmental of Kansai and the Osaka Metropolitan area. All levels of government have subscribed to the vision laid out in Yonzenso, and each has their own responsibilities for its implementation.

'Subaru' Plan for the Kansai Region and Regional Infrastructure Projects

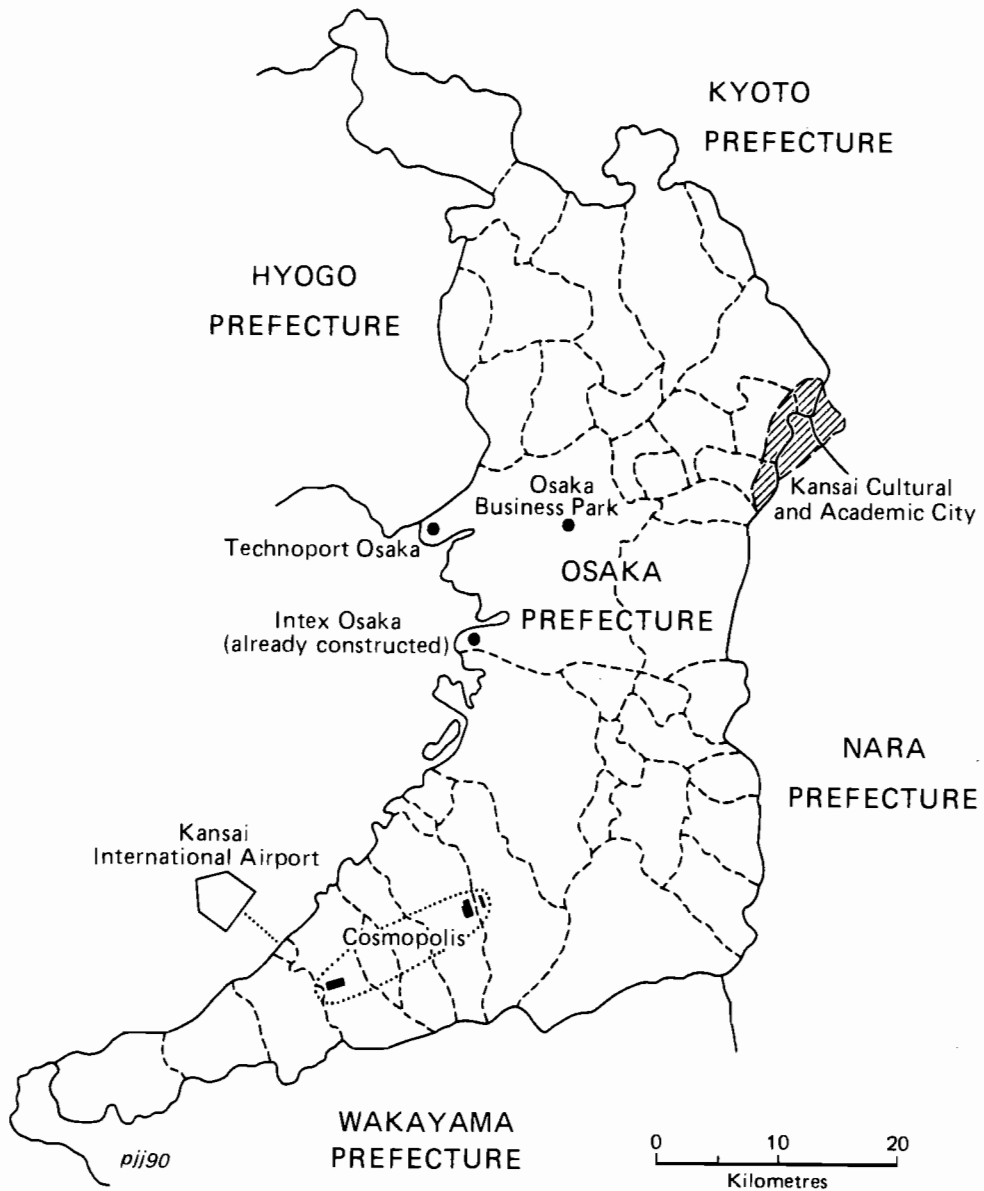
The 'Subaru' plan was made in 1987 jointly by the City of Osaka and the surrounding prefectures and major city governments. It calls for the creation of a New Kansai Region by the year 2025, focusing upon the national trend of internationalization and technological innovation, but in a way that builds on the region's economic, cultural, and academic strengths (National Land Agency et al., 1987). In the implementation of the plan, two leading projects for Kansai have become the driving force for restructuring the area and developing the regional economy. These are the construction of the Kansai International Airport and the Kansai Science City (Figure 10-3).

Kansai International Airport

In 1987, the Japanese government gave the final approvals necessary for the construction of a new international airport in the southern part of Osaka Bay by the method of land reclamation (*Japan Economic Journal*, 28 February 1987). This offshore airport, known as the Kansai International

Figure 10-3

Location of Major Infrastructure Projects in the Kansai Region



Airport, is designed to serve round the clock and to be a powerful link with the world air transportation network. It is expected to cost about one trillion yen (*Japan Economic Journal*, 22 April 1989).

The Kansai International Airport will be constructed on an artificial island of 510 ha in Osaka Bay (5 km offshore). Following land reclamation, airport terminal facilities and a runway (3,500 m) will be constructed and an access bridge, combining road and rail, will link the island with the mainland. Alongside the new airport, major industrial and commercial projects— from a waterfront development at Rinku Town to a high-tech research park called 'Cosmopolis'— are set to be built by 1993 (Edgington, 1990b). The success of all these plans pivots, however, around the timely completion of the airport.

After opening, also targeted for 1993, the airport is planned to serve 50,000 passengers daily and handle 1,800 tons of cargo with 160 takeoffs and landings. Future expansion up to a total area of 1,200 ha, with three runways, is currently being considered. By 2001, some 31 million passengers are expected to use the facility, more than double the current traffic at Tokyo's Narita International Airport (Kansai International Airport Company, 1989). The round-the-clock airport is also expected to make Osaka an important cargo hub of the Pacific. Construction of the airport alone is anticipated to boost the regional economy by 15 trillion yen (*Japan Economic Journal*, 22 April 1989). Detractors note, however, that this project will be at least an hour from downtown Osaka even when new highways and rail lines are completed. Moreover, in direct competition, Tokyo's Narita International Airport is undergoing its own expansion program, including a new direct link with downtown Tokyo (*Globe and Mail* [Toronto], 29 November 1988).

Kansai Science City

The Kansai Science City is currently being established on an area of 2,000 ha in a region which touches the three prefectures of Kyoto, Osaka, and Nara (the Keihanna hills). Conceived in the late 1970s, it will function as a western Japan equivalent of Tsukuba Science City, located 60 km north of Tokyo (Edgington, 1989). The full-scale construction of the Kansai Science City is being managed by the Kansai Research Institute, established by the national government in 1986. The intent here is to assemble research laboratories for high-technology development and creative studies in a joint effort of private enterprises, the public sector, and academic institutes. Osaka, Kyoto, Kobe, and Nara have many universities which have produced excellent achievements in the natural, cultural, and social sciences and in engineering. The region's research facilities will be significantly upgraded by the planned networking of these centers with the new Science City (Morita and Hiraoka, 1987). The area already encompasses two existing minor universities, and further land development and building is being carried out by both the public and private sectors. At the end of the 1980s, a joint public and private sector Advanced Telecommunications Research Institute (ATR) was under construction, and seven major private research institutes were already committed to buying land

(interview with H. Atsushiba, Osaka Prefectural Government, March 1988, Osaka). However, the areas of research which each facility will specialize in is yet unclear (Johnstone, 1988).

Other Regional Projects

Beside the two National Government-led projects mentioned above, a large number of other large projects and events are being planned throughout Kansai to ensure suitable development in the 21st century (Edgington, 1990b) (Figure 10-3). Those which are led by the Osaka prefecture include: the International Cultural Park in the north of the Metropolitan Area; the 'Aeropolis' project adjoining the new airport; and the prefectural 'Cosmopolis' high-technology park system in the south of the Metropolitan Area, referred to above (Edgington, 1990b).

NEW INFRASTRUCTURE PROGRAMS OF OSAKA CITY

Osaka City is a partner in the planning and implementation of these regional projects. It has also instituted many complementary projects of its own over the last few years.

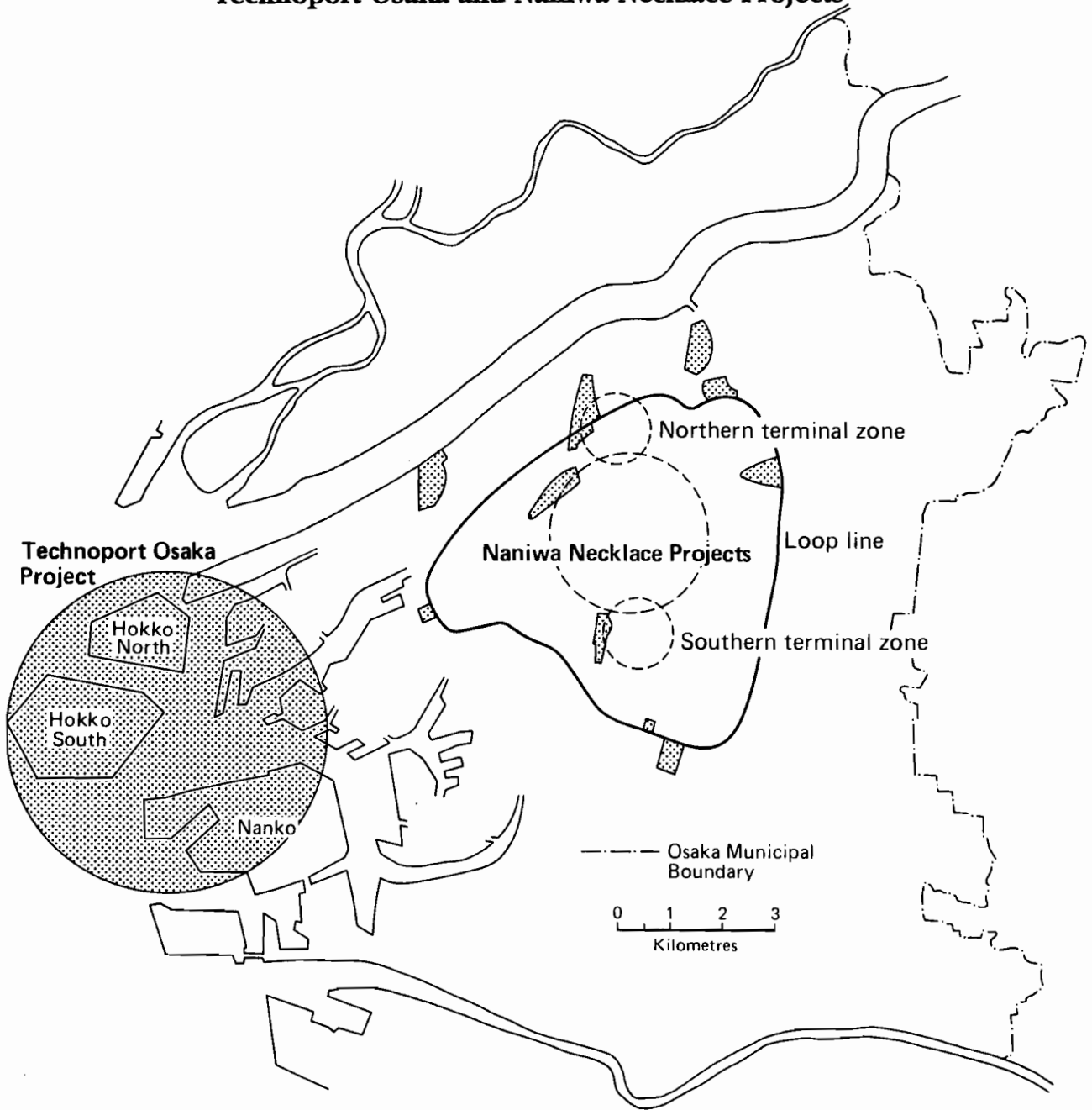
Osaka City's Technoport Project and Teleport

The Osaka Technoport Project is being implemented by the municipal government to create a 'city within a city', and is considered as an 'international information port' which will complement the establishment of the Kansai International Airport (Morita and Hiraoka, 1987). Its location is on reclaimed lands off the Port of Osaka and consists of three artificial islands (Nanko, Hokko North, and Hokko South) having a potential redevelopment of about 700 hectares, or over 1,000 acres (see Figure 10-4) (Matsuda, 1986). Of these areas, Nanko and Hokko North are already available for construction work, while Hokko South will be ready for use by the year 2000 (Iseki, 1986; Port and Harbor Bureau, City of Osaka, 1988).

The three major features of the Technoport include: advanced information and telecommunication facilities at the Osaka Teleport and associated Office Park; a Research and Industrial Park for enterprises involved in areas such as micro-electronics, biotechnology, new materials, and ocean engineering; and a comprehensive trade distribution center. An International Trade Exhibition Hall (INTEX Osaka) and Trade Information Center have already been completed on Nanko, and the teleport commenced operation there in 1989 (interview with J. Ikeda, Urban Information Engineering Bureau, Osaka Municipal Government, May 1989, Osaka). Various other facilities— such as museums, sports and recreation centers, hotels and convention centers, and high-quality housing— are also planned to create attractive urban areas in both the Nanko and Hokko districts.

Figure 10-4

Technoport Osaka and Naniwa Necklace Projects



'Naniwa Necklace' Redevelopment Projects

A railway line surrounds the central area of Osaka in the form of a loop, and along this railway loop lie a series of urban renewal projects. It is intended to redevelop these areas, former railway cargo yards and factory sites, roughly in the shape of a necklace around the central districts of Osaka (Figure 10-4). By promoting these projects, Osaka expects to revitalize its central area while at the same time creating spin-offs for the surrounding zones. This effort is called the Naniwa Necklace Project. 'Naniwa' is an ancient name for Osaka which has been popularly revived (Morita and Hiraoka, 1987).

In order to strengthen the district's information infrastructure, the City established the Osaka Media Port company (OMP) in 1985. This has a mandate to construct telecommunications infrastructure so as to link the Osaka teleport through with the Naniwa Necklace projects, eventually to cover the communication needs for the entire Osaka Metropolitan Area. OMP is currently laying an optic fiber communication network under the central business district of Osaka by utilizing the existing subway and toll highway routes that connect this area to the Teleport (Osaka Media Port, 1986). Fifty percent of the cost of laying optic fiber between the different redevelopment areas of the 'Naniwa Necklace' circuit is being financed by the national Ministry of Construction under its 'Intelligent City' project (Edgington, 1989). In the long term, the network will be extended outward from the downtown area in response to demand. The project, presently in its first phase, is developing a network which will serve the City of Osaka and nine neighboring municipalities. The service area will eventually be expanded to cover the entire Kansai area, making use of the electric power supply cable network of the Kansai Electric Power Co., Ltd.

International Event Venues

In addition to the projects mentioned above, Osaka City has been assembling the 'hardware' and the 'software' required to implement its vision for making Osaka a truly international city. By way of illustration, Osaka annually hosts a large variety of world trade fairs and conventions that provide an important medium for international exchange. In order to expand this role, the city has recently constructed a wide selection of new venues, ranging from full-scale, multi-purpose fairgrounds to small-sized auditoriums. These include the Osaka International House, INTEX Osaka (International Exhibition Center), Osakojo Hall, Mydome Osaka, and an International Conference Hall (Osaka Prefectural Government, 1987; Osaka Chamber of Commerce and Industry, 1988; *Japan Times*, 20 June 1989).

Asia and Pacific Trade Center (ATC)

This project is designed to be a permanent, international wholesale distribution marketplace, with special emphasis on imports from Asian and Pacific Rim countries. A new private/public-sector joint venture company was set up in 1988 to construct this facility (ATC Project Pre-

paratory Committee, 1988), which will include large-scale exhibition sites, together with facilities for customs and quarantine stations, consultation services, and trade-related organizations representing specific countries. The center is scheduled for completion before the New Kansai International Airport comes into service in 1993, at the cost of 120 billion yen.

New Research Facilities

In Nanko District, close to the teleport, a 'Systems House Complex' was constructed in 1987 to accommodate small and medium-sized enterprises using advanced applied technologies in micro-electronics, and software development. In 1986, Fanuc, a leading company in the field of robotics, was the first large enterprise to move to the Kansai Technical Center, a public/ private-sector facility located nearby. In the northern suburbs of the City, the Osaka Bioscience Institute was commissioned by the City in 1987, and around this institute a Protein Engineering Research Institute and other private biotechnological research institutions are also planned. Together with existing biotechnology-related research facilities of nearby Osaka University, it is anticipated that these projects will transform the area into a national 'biotechnological hub' (Osaka Prefectural Government, 1986).

International Garden and Greenery Exposition (Expo 1990)

The International Garden and Greenery Exposition, which took place for six months in 1990, was planned in order to enhance Osaka's image in the area of environment, horticulture, and landscaping, as well as serve as a showcase for local achievements in plant biotechnology and other related fields (Morita and Hiraoka, 1987). It was the fourth such international exposition to be held in Japan, following the Expo '70 in Osaka, the Okinawa Marine Expo, and the Tsukuba Science Expo. The aim of this exposition, which was located in the eastern part of the city, was to re-examine the relationship between people, gardens, and greenery, and to create a more enjoyable and comfortable society for the 21st century (Japan Association for the International Garden and Greenery Exposition, 1989).

Financial and Business Initiatives in Financial Services

Development of Osaka's financial sector is another crucial factor in revitalizing the economy. At the end of March 1986, Osaka held over 10 percent of national bank deposits and loans, and in the same year, the volume of stocks traded at Osaka Securities Exchange surpassed London to rank third after New York and Tokyo. In 1987, the Annual Meeting of the Board of Governors of the Asian Development Bank was convened in Osaka; and Osaka Stock Futures, Japan's first future trading of stocks, was commenced at the Osaka Securities Exchange (Holloway, 1988). Such innovative measures are designed to consolidate Osaka's position as a Pacific Rim financial center (Osaka Prefec-

tural Government, 1987). Other policies include building up economic exchanges with Asian banking centers, as well as helping to list Asian and Oceanic firms closely connected with the Kansai district on the Osaka Stock Exchange. This link is expected to invigorate the local securities industry as well as other sectors of the Kansai economy (Business Innovation Division, Department of Commerce and Industry, Osaka Prefectural Government, 1989). Yet another important recent development was the beginning of an offshore financial market in Osaka in 1986, targeted at the Asia-Pacific region, and comprising an important step in advancing the international aspects of the local financial market (Osaka Chamber of Commerce and Industry, 1988).

Assistance to Small and Medium-Scale Firms

Osaka City has a high concentration of small/medium-sized businesses, comprising over 99 percent of private establishments and over 75 percent of the City's total workforce (Economic Affairs Bureau, Osaka Municipal Government, 1988). This exceptionally high number is due to its historical orientation towards a light industrial structure (e.g. textiles) and a roadway system which could not accommodate large establishments. In recent times, many large electronic components firms have had to locate outside the City boundary; however, they could not move too far away, since major Osaka firms, such as Matsushita and Sharp, need small parts makers nearby for their assembly lines. For these reasons, small/medium-sized enterprises are very important for Osaka, and the City has set up a number of special programs targeted specifically to the needs of these firms.

Business Incubators

With a new set of economic circumstances following endaka, there are now seen to be opportunities for completely new service-oriented companies and new technology-based firms in Japan. In this light, and due to its historical background in small/medium enterprises, Osaka City has planned for a series of business incubators. These facilities comprise low-cost industrial and commercial accommodation suitable for 'start-up' enterprises in new commercial and technical fields (Osaka Municipal Government, 1988). Following a two-year investigation, the city decided to support two types of incubators — one for R&D enterprises and one for service enterprises (interview with T. Yonezawa, Economics Bureau, Osaka Municipal Government, March 1988, Osaka).

The R&D-type incubator started its implementation phase in the spring of 1989 at CIT ('City Industrial Town'), an old-style city-owned factory in a coastal district where land prices were still relatively low. Accommodation of some 35,000 m² was set aside for 30 start-up firms to begin with, and the incubator has so far attracted mainly computer and systems design houses, plus some prototype factories and testing facilities. As of mid-1990, the service industry incubator study group had not yet chosen a location, but it was considered that any property must be suitable for accommodating a range of support services in one building — including management and financial advice,

together with services such as word processing, computing, and photocopier facilities. By contrast, the R&D type was thought to need more technical information; but, as with this initial project, it is intended that the service-oriented start-up firms have access to incubator facilities for three years before they have to leave (interview with S. Miura, Economic Affairs Bureau, Osaka City Government, 30 May 1989, Osaka).

Industrial Networking

Acting under a national program, Osaka City is now involved in the linking of companies in order to exchange knowledge and ideas, leading to new products and processes. For example, metal-makers and metal coating companies in Osaka are being encouraged to join together in study groups to look further at their users' needs. While steel and steel-covering companies are naturally related, more creative new materials are expected to emerge from the combination of firms currently specializing in wood, ceramics, and paper products; and this type of networking is encouraged and facilitated by the city. Once the new industry group is established by the city, it is then expected to eventuate in a proposal for private or public funds for market or technology research, leading in turn to a new industry or business. While large private companies are exploring new business opportunities in the post-endaka environment, the city feels that it has to set up special organizational structures to assist small and medium firms (interview with T. Yonezawa, Economics Bureau, Osaka Municipal Government, March 1988, Osaka).

Assistance to the Textile Industry in Semba

A local development project called IBIS (Interactive Basin Information System) was established within the Semba area of Osaka, during 1986, to help upgrade the City's traditional textile and fashion companies. Its objective is to set up an on-line, highly sophisticated, fashion database and video information system transmitted by computers, value-added networks, videotex, high-definition cable television (CATV), computer-aided design (CAD), and so on (Basic Information System Development Company, 1988). The intention is to link together each wholesaler and producer in the Semba district by optical fiber cable, and provide up-to-the-minute fashion information from all over the world — including Paris, New York, and Milan. This may include, for example, broadcasting of local and overseas fashion shows and other events, transmission of product catalogues by video mail, and design supports for CAD users.

Five experimental computer systems now operate in the 'Semba Center Building,' and comprise specialized data banks and a high-definition vision TV system (called 'HI-OVIS' or Osaka Visual Information System). The project covers initially 100 out of the 2 to 3,000 textile wholesalers and producers in the Semba area. When finally implemented, it will be comparable to the system that the inter-

nationally acclaimed Japanese clothes designer Mori Hannae has at his shops and factories in Tokyo (interview with F. Murata, Economics Bureau, Osaka Municipal Government, May 1989, Osaka).

RESPONDING TO THE CHALLENGES OF CHANGE

Mature industrial cities of the Pacific are losing major sectors to newly industrializing economies, and must now learn to cope with adjustments of unprecedented scale. Osaka was once the commercial, financial, and industrial center of Japan, and has benefited in the past from its ties with Asia. However, international forces currently playing themselves out in the Pacific arena are impacting upon both the city and its wider region. For example, as labor and production costs rise through endaka, so industry will continue to move out of Japan to the Asia-Pacific NICS (Otsuka, 1986). Notwithstanding, it is likely that this will involve mainly assembly work; the technology-intensive parts production, together with know-how and control, are expected to remain largely in Japan. In this context, it is vital that Osaka and Kansai position themselves as regions for creating innovative industries, as well as centers of administrative and financial control.

Upgrading Regional Infrastructure

To realize these objectives, significant upgrading of the region's infrastructure is required. The Osaka region has had a long history of using major improvement projects to restructure its economy, and this chapter has shown that new strategic projects to prepare Osaka for the 21st Century are well underway. These include the national-status Kansai International Airport and the Kansai Science City, as well as a host of complementary projects commenced at the regional and local level. In particular, the City of Osaka is promoting additional undertakings which aim at strengthening the information and communications network of the entire region. With new facilities such as the Technoport Project, Asia-Pacific Trade Center, and Air Cargo Terminal, Osaka hopes to be at the very center of exchange in the Asia-Pacific region. Together, these and other projects constitute one of the largest sets of infrastructure developments currently underway in the Pacific Rim and will require investments totalling some 15 trillion yen or roughly \$100,000 million (at 1987 prices) (Edgington, 1990b). Upon completion of these schemes, the Kansai region is expected to experience another rapid surge of development, leading to a deeper interaction with people of other Pacific nations.

Policy Approaches

Three characteristics of this new wave of projects stand out. First is the cooperation between public and private sectors and the use of so-called 'third-sector' enterprises (Johnson, 1978)—combining local and national governments with banks, construction companies, and railway companies as appropriate. Second is the use of public policy in telecommunications: Osaka is taking advantage of the liberalization of telecommunication operations at a national level in 1985 to

permit small firms, not just large ones, to capture the productivity gains implicit in the new technologies. This approach is embedded in its enthusiasm for business incubator 'start-ups,' as well as its program of support and modernization in the Semba district (Basic Information System Development Company, 1988). Third, besides the grass-roots aid initiatives to small and medium business, Osaka City views boosting imports from Asia as critical to its own economic well-being. The City recognizes that strengthening ties with the Asia-Pacific region is a critical mechanism to revitalize the Osaka economy and to establish an identity different from that of Tokyo.

Technology and Investment

Preliminary analysis by the author suggests that a new wave of optimism is beginning to emerge in Osaka and Kansai, based on the positive response of the business sector. In the late 1980s, Japan enjoyed an investment spurt at the national level (*Economist*, 8 July 1989), and the number of high-tech businesses located in the Kansai region— in fields such as aviation, space navigation, integrated circuits, computers, optic fiber, industrial robotics, biotechnology, and medical electronics —is steadily increasing. Meanwhile, many existing companies have branched out into the development of electronics, biotechnology, and other high-technology industries in recent years (Business Innovation Division, Department of Commerce and Industry, Osaka Prefecture Government, 1989). Apart from this, Osaka's electrical appliance industry (as represented by the firms of Matsushita, Sharp, and Sony) is now no longer composed of simple assembly plants of consumer goods, and is gradually expanding its business into the field of micro-computers and sophisticated software. Expansion in the service industry, particularly in the information, finance, and specialized service industries, is also gradually occurring. This growth is expected to provide a core for additional improvement in the city's functions.

In the 1990s and beyond, Osaka is considered to be well placed to maintain or increase its share of these national activities, especially as the cost of land and office space in the City is about one-third the cost of comparable space in overpopulated Tokyo (Economic Affairs Bureau, Osaka Municipal Government, 1989).

CONCLUSION

It is evident that the Kansai area economy continues to strive for the ideal industrial structure of a new Pacific age, making the most of its industrial nursery capacity to quickly develop new products and corporate structures. As a result of these endeavors, the Kansai and Osaka economy is gradually being transformed from a mass marketing economy, which was the driving force during earlier periods of higher economic growth in Japan, to the more flexible manufacturing and merchandising capabilities needed to succeed in today's Pacific markets— characterized by short product cycles and diverse product lines, together with short-term

production, marketing, and servicing deadlines. It is an interesting example of how a second-tier city of the nation — which exists as a major financial, technological, and trading power in the Pacific Rim — is positioning itself to benefit in ways that are non-competitive with Japan's leading city, Tokyo.

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CHAPTER 11

SEOUL DOMINATES KOREA'S EMERGENCE

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INTRODUCTION

Historically, Seoul has been literally the center of the Korean nation. Throughout the five hundred years of the Yi Dynasty, the period of Japanese occupation, and the current democratic government, Seoul has been the nation's center of economic, cultural, and social functions.

In contemporary times, Seoul has developed as the center of all kinds of the international activities associated with trade and financial service, cultural exchanges, and tourism. It is the location of most foreign and domestic agencies. Pusan, nominally the second-level city, has never been in real competition with Seoul.

The government of the Republic of Korea has had a policy to control the growth of the major cities, mainly Seoul and Pusan. While this seems to have had the effect of suppressing the growth of population and economic activities within the city limits, the policy has had unpredicted effects on the spatial expansion of Seoul into its surrounding area. Consequently, the satellite cities and the vast area of the capital region have grown rapidly (see Figure 11-1). Ironically, the unchallenged primacy of Seoul in economic and cultural functions seems to be reinforced by the growth of the capital region in spite of the government policy to control its growth. This chapter examines the industrialization and urbanization of Seoul in the context of the nation. It looks at the emerging roles of Greater Seoul and Pusan in the national urban system. Seoul is portrayed as the gateway to the Pacific, the center for high-tech developments, direct savings investment, and tourism. The chapter looks at the growth of Seoul as a multi-centered metropolis, its characteristics, and emerging problems.

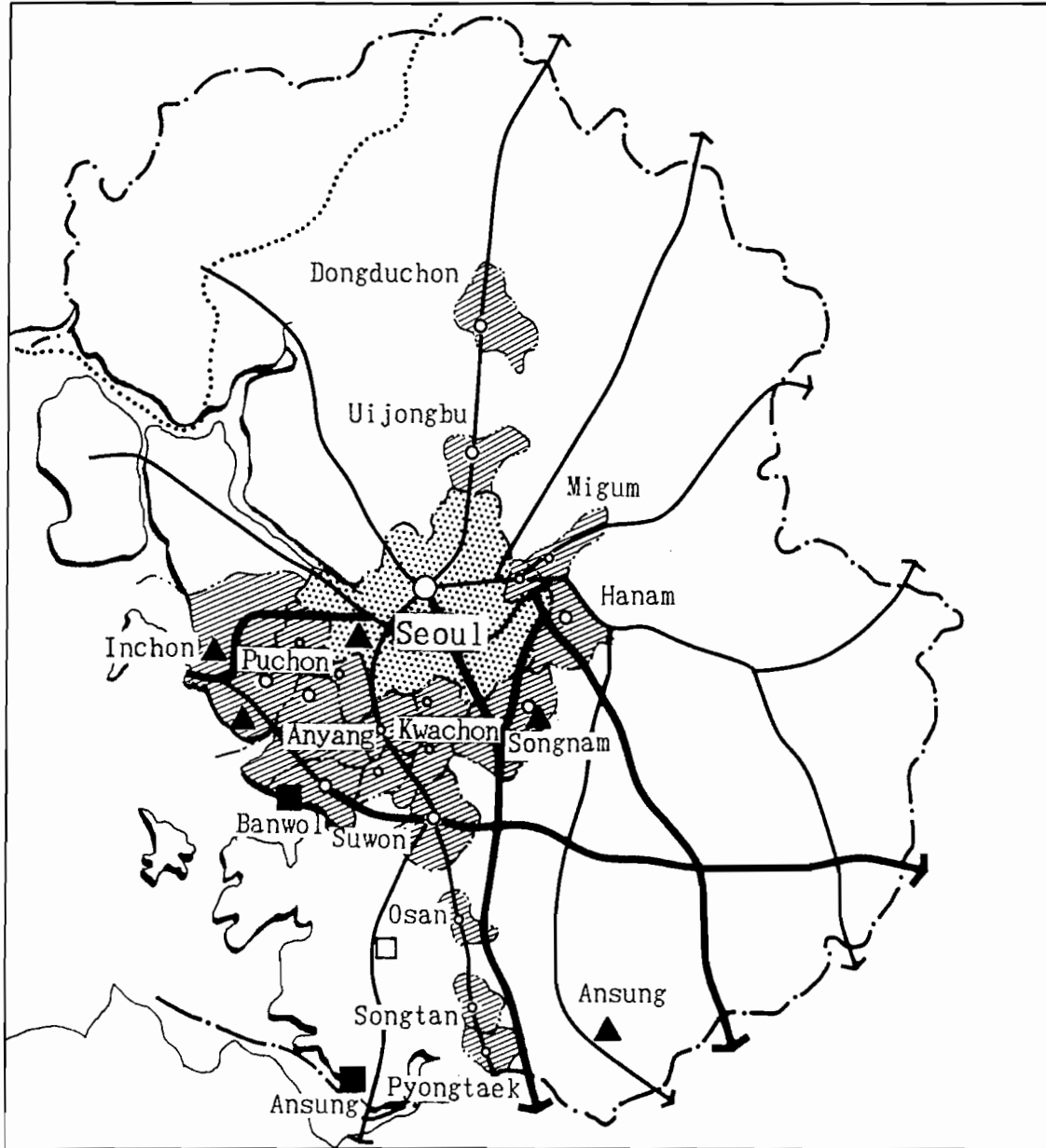
INDUSTRIALIZATION AND URBANIZATION

Population Growth and Metropolitan Concentration

After the Second World War, Seoul experienced a sudden increase of population. During the early post-Second World War period, nearly 2.4 million Koreans returned from Japan, China, and elsewhere (Kim, 1982), in addition to the influx of 750,000 refugees from North Korea. The majority of these refugees settled in Seoul and other provincial capitals such as Pusan, Taegu, Kwangjoo, and Daejeon, where the benefits of the post-war relief programs were readily available. In addition, the Korean War (1950-53) generated another massive wave of refugees from North

Figure 11-1

Seoul and Capital Region



Local Industrial

■ Industrial Base

□ Estate

▲ Others

○ C.B.D.

Korea; most of them settled in the major cities in the South, particularly in Seoul and Pusan, the wartime capital city.

From 1960 to 1985, the national population increased from 24.9 to 40.4 million, with an annual growth rate of 1.9 percent. The urban population almost quadrupled, with an annual growth rate of 5.3 percent, while the rural population decreased at an annual rate of -1.0 percent. Consequently, the share of the urban population has increased from 28.0 percent in 1960 to 65.4 percent in 1985. It reached 76 percent in 1990.

The most prominent feature of urbanization during the last three decades has been the concentration of population and economic activities in and around the cities of Seoul, Pusan, and Taegu.

In 1945, the population of Seoul was 950,000, 6 percent of the national total. By 1990, one-quarter of the population in the nation lived in Seoul (10 million in 1990), making it the fifth-largest city in the world. The city's population grew at the rate of 8.3 percent during the 1960s, four times faster than the national average (2.1 percent). However, in the 1970s and 1980s the city's growth rate in Seoul had dropped to 4.1 and 2.7 respectively, while the growth rate in the capital region was sustained at the rate 4.3 percent in the 1970s and 4.1 percent in the 1980s. Much of this population growth was attributed to net migration. Nearly 60 percent of the rural out-migrants moved into Seoul. Two-thirds of in-migrants to Seoul were from rural areas. The capital region's share of national population increased from 24.3 percent in 1966 to 40.3 percent in 1987.

The recent decline in the growth rates in Seoul is attributable, in part, to various governments' policies of controlling the city's growth. Although Seoul's population is still growing at a higher rate than the national average, the satellite cities are playing the leading role in rapid growth in the capital region. The city of Incheon in the capital region, equipped with the second-largest port facility in Korea, grew at a rate of 4.7 percent in the 1960s and continued to grow at rates of 5.5 and 4.8 percent in the 1970s and 1980s. Not only have the satellite cities in the capital region been growing much faster than Seoul, they are growing faster than the rest of the cities in the nation. In fact, the restrictions on the growth of manufacturing activities in Seoul seem to act positively on the growth of the satellite cities surrounding the capital.

Pusan is the second-largest city in the nation, with a population of 3.6 million in 1987 within 434.5 sq.km. The population and the area of the city constitute 8.7 and 0.44 percent of the respective national totals. From 1962 to 1970, the population increased at a rate of 4.2 percent annually. In the 1970s, the annual growth rate of population was 5.4 percent. However, by the 1980s, the growth rate declined to 2 percent. This demographic trend follows closely with the growth pattern of employment in the manufacturing sector in the Pusan area.

The urbanization process in Korea has been closely tied to structural changes in the manufacturing sector during the rapid economic growth in the 1960s and 1970s. In response to rapid

industrialization in urban areas, rural out-migrants have concentrated in the cities. Rural-to-urban migration was largely responsible for the urban areas gaining a total of 19.5 million people during the period 1960-1985, which is much more than the total increase in the population of the nation.

The dominance of Seoul and Pusan is characterized by the concentration of industrial activities, population influx, and the consequent increase in urban facilities and services from the public and private sectors. During the period 1966-1970, more than 45 percent of the total increase in the secondary and tertiary employment took place in Seoul. But this concentration of growth, as well as that of the larger cities, seems to have peaked in 1970. This is also due to various public policy measures taken to control the excessive spatial concentration of industrial activities in the Seoul area. Consequently, Seoul-centered growth has shifted to the city's surrounding region. A capital region system of cities has thus emerged between industrial areas and satellite residential areas.

Post-War Industrial Reconstruction

During the Korean War, Seoul was completely destroyed. Few commercial and manufacturing facilities were salvaged in the capital region. During Korea's early industrialization period, the employment in manufacturing sector activities increased from 22 percent in 1960 to 27 percent of the total employment in 1970.

Since the 1960s, the Korean government has taken a leading role in establishing industrial estates across the nation (see Figure 11-2) by granting financial incentives and tax holidays to firms established in the industrial estates. Various infrastructure and facilities at these sites are provided by government agencies, and established sites were sold to manufacturers at a price lower than the private cost of development. New industries and those relocating in the industrial estates generated jobs in a policy aimed at stimulating industrial growth and achieving decent national growth. By 1989, government-established industrial estates constituted 61 percent of the total industrial areas in the nation.

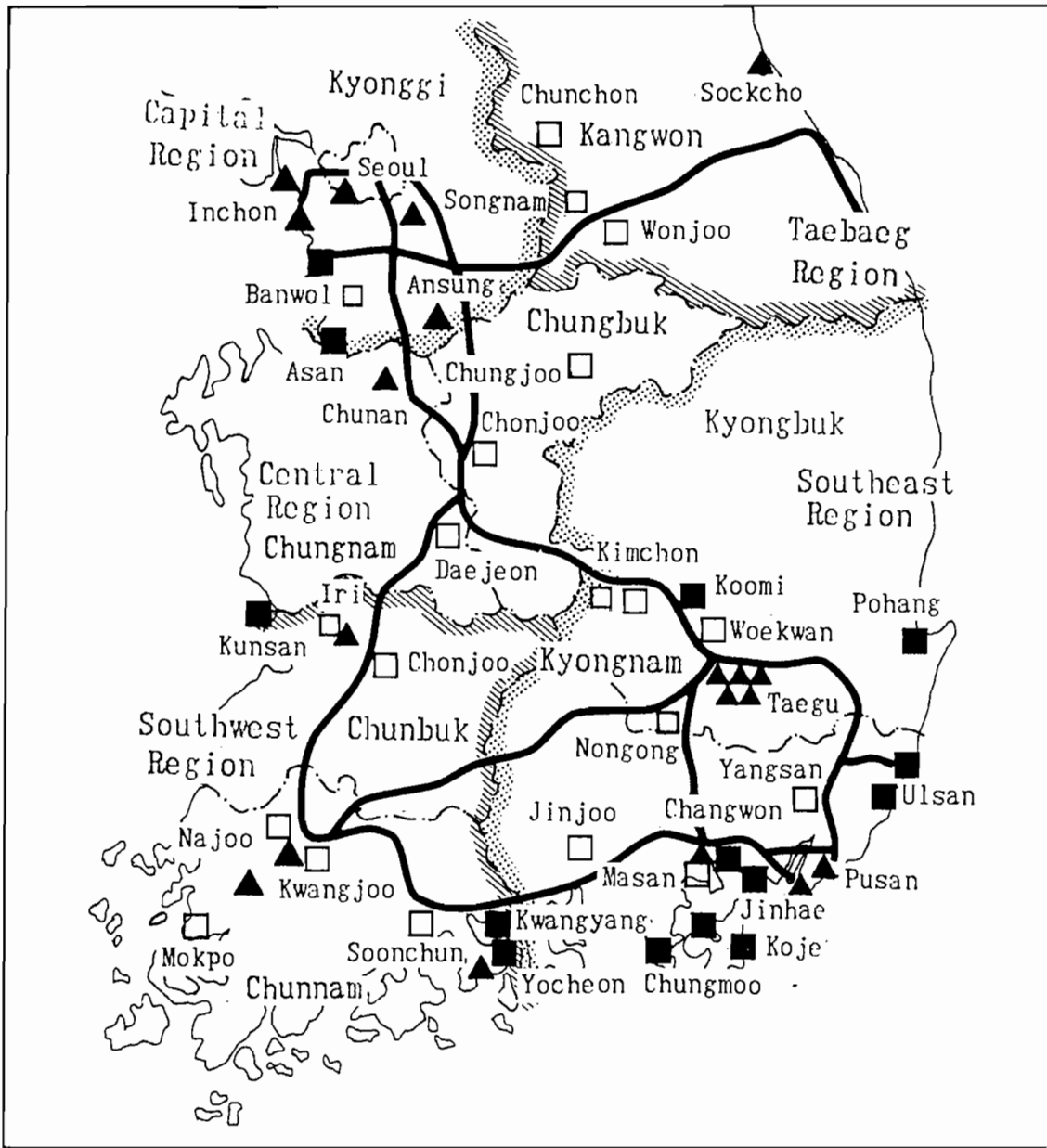
Spatial Patterns of Industrialization

As mentioned above, the Republic of Korea has experienced an incredibly rapid rate of industrialization and urbanization since 1960, which has widened the disparity in regional industrial activities and population. While the powerful government leadership has claimed the credit for this rapid economic growth and industrialization, the government's industrial policy has been blamed for the spatial imbalance that has emerged.

From the early stages of industrialization, the majority of government-sponsored industrial estates were established in the Seoul capital region and in the Southeast region around Pusan. The Ulsan industrial estate in the Southeastern coast was established in 1962, and the Kuro industrial estate was established during the period 1963-1973 in Seoul. The benefits of industrializa-

Figure 11-2

Regions and Industrial Estates in the Republic of Korea



Local Industrial

■ Industrial Base

□ Estate

▲ Others

tion went more proportionally to those two regions, which in turn resulted in further growth. The share of manufacturing employment in the two regions increased from 54.0 percent in 1963 to 88.5 percent in 1987, and is still increasing. Between 1975 and 1980, the capital region and Southeast region accounted for 87.4 percent of employment growth in the manufacturing sector. In the 1980s, the two regions shared 83.8 percent of the increase in manufacturing employment in Korea.

Manufacturing employment increased from 748,000 in 1968 to 3,167,000 in 1989, at a rate of 6.9 percent per annum. The 1968 map shows three or four concentrated spots of industrial output. Although government intervention and control was strong, industrial development continued the spatial development pattern. In spite of the size of Pusan and other large cities, and their associated high levels of congestion, there is some evidence that the agglomeration economies are still prominent in the large metropolitan areas for most manufacturing sectors (Hong, 1985).

Along the Seoul-Pusan Expressway, most manufacturing activity has diffused to cover portions of the central region around Daejeon, and the cities of Chungnam and Chungbuk provinces. It has also leapfrogged from the capital region to the mountainous east, connecting the small and medium-sized cities of Wonju, Jecheon, and Donghae on the east coast. The Southeast Industrial Belt expanded into a horseshoe-shaped industrial area connecting the cities of Pohang and Ulsan on the eastern coast, Taegu and Kumi in the northern inland strip, and Pusan, Masan, and Changwon on the southern coast.

A TALE OF TWO CITIES

By comparing Seoul with the nation's second city, Pusan, located in the southeast, the processes of economic development and urbanization that have led to Seoul's dominance can be more clearly understood. The economy of Seoul and the capital region has increasingly diversified over the last two decades.

As part of the national government's industrialization policy, Seoul experienced significant industrial development in the 1960s, including two major industrial estates: the Export Industrial Estates in Yongdungpo and the Korean Plastic Industrial Estates in Sungbuk District. Export-oriented light manufacturing industries, textile, machinery, and chemical industries dominated, employing 63.7 percent of the total manufacturing workers in 1968.

Since the 1970s, the employment structure in Seoul has been relatively stable. About 70 percent are in the tertiary sector, a moderate increase since 1975. About 30 percent continue to work in the secondary sector, although since peaking at 34.4 percent in 1975, the employment in the food-producing industry has been gradually declining (see Table 11-1). Manufacturing, on the whole, however, is declining much faster in Seoul than in the surrounding region as other areas become more competitive.

Table 11-1

**Employment Trends by Industry Sector,
Republic of Korea, Seoul, and Pusan**
(percent distribution)

<u>Year</u>	<u>Nation</u>			<u>Seoul</u>			<u>Pusan</u>		
	<u>Primary</u>	<u>Secondary</u>	<u>Tertiary</u>	<u>Primary</u>	<u>Secondary</u>	<u>Tertiary</u>	<u>Primary</u>	<u>Secondary</u>	<u>Tertiary</u>
1968	-	-	-	-	-	-	12.7	14.0	73.3
1970	50.8	15.2	34.0	1.9	28.7	69.4	3.5	34.8	-
1975	48.9	18.2	32.9	2.0	34.4	63.6	-	-	-
1980	37.8	22.8	39.4	1.0	32.5	66.5	3.3	42.6	49.1
1986	28.1	24.1	47.8	1.0	29.4	69.6	1.6	40.1	50.3

Source: EPB, Population and Housing Census.

Since the 1970s, labor-intensive manufacturing activities have led Seoul's industrial development, with clothing, printing, publishing, machinery, and plastic industries dominating. Pollution-generating industries, categorized as non-urban, have been reduced through enforced environmental regulatory measures. Some, including food products and chemical industries, have been relocated to other provincial regions, and new industries have been strictly controlled under administrative orders.

Another notable trend in Seoul's industrial development has been an increasing number of small and medium-size firms of less than 300 employees. The share of the employment, in small and medium-size firms, in the capital region increased from 48.7 percent in 1968 to 64.6 percent in 1985. In Seoul, with its abundant labor supply and agglomeration advantages, the number of employees in such firms has increased from 49 percent in 1968 to 70 percent in 1985.

Commercial activities in Seoul increased during the 1960s, as part of regional economic development. Wholesale activities increased over 20 times since the end of World War II, increasing from 1,751 in 1942 to 25,218 in 1960, with over 43,000 persons employed by 1986. In 1970, the number of retail outlets quadrupled to 84,669, with over 174,000 workers. Banking and financial activities also started to concentrate in Seoul and the capital region, with expanded industrial and commercial activities and growing foreign trade. The national share of deposit and loans in Seoul increased, respectively, from 63 percent and 54 percent in 1960 to 60 percent and 64 percent in 1986.

Seoul's share of the service sector was much higher at 69.6 percent in 1986, compared with that in the two secondary cities of Pusan (58.3 percent) and Taegu (58.9 percent). A salient feature of this growth is the growing orientation to producer services. In addition to the nationwide services that Seoul has been providing, the rapid growth of the satellite cities in the capital region has also created an expanding regional demand for financial, insurance, and information services, in particular, in Seoul to meet the needs of the industrial activities concentrated in the capital region.

Port and Industry Activities in Pusan

With the partitioning of Korea after World War II, Pusan gained importance as one of the few ports in South Korea equipped with relatively modern facilities. During the Korean War and especially the few years after, due to the destruction of the port of Incheon, most of the shipments in and out of the country depended upon Pusan's port facilities. In the early industrialization period of the 1960s, Pusan led the growth of the textile, shoes, and metal export industries. In the Southeast region, Pusan was the center of the Southeastern Coast Industrial Belt, integrating the newly industrialized cities of Ulsan, Pohang, and Masan. However, since the 1970s, investment and employment growth in the light manufacturing sectors has declined. As shown in Table 11-1, Pusan's relative employment in the service sector is declining, while the manufacturing share has increased.

On the other hand, Pusan's share of manufacturing employment decreased from 18.2 percent in 1966 to 17.7 percent in 1975, then further to 15.1 percent in 1985. The annual growth rate was 4.5 percent per annum from 1966 to 1985. Three leading manufacturing sectors emerged in Pusan throughout the industrialization period over the last three decades, chemical and rubber products, machine and metal assembly, and textile and leather products. With the decline in the shoe and chemical product industry, the industrial share of those sectors decreased from 41.9 percent, in the period 1966-1975, to 23.1 percent in the recent years of 1975-1985. The share of machinery and metal assembly products remained stable in the range of 40 to 42 percent.

Transportation and Transportation Facilities

In the 1980s, car ownership in Korea increased at the rate of 20 percent per annum. About one million cars are in Seoul, which has over 40 percent of the cars in the nation in 1989.

With the rapid growth of the metropolitan area and the increase in car ownership, the number of commuters to Seoul has also increased. Automobile and subway use have both been increasing, while the shares of bus and taxi use have been decreasing. In spite of the high tax on gasoline and car ownership, this trend in modal split will continue in Seoul as car ownership increases. The road ratio in Seoul is 17.8 percent in 1988, much lower than those of Washington (43 percent), Paris (25 percent), New York (21.9 percent), and Tokyo (24.4 percent). Furthermore, about 81.3 percent of the roads have a width less than 10 meters, and are incapable of functioning properly as main roads. The road ratio increased only 2.3 percent from 1982 to 1988.

In spite of development in the Kangnam area of Seoul, south of the Han River, official functions are still concentrated in the old CBD area. The monocentric pattern of office development and employment, coupled with the radial road network, has created heavy traffic congestion in the center city. The average speed of city traffic decreased from 30.8 km per hour in 1980 to 20.5 km per hour in 1988.

Currently, four subway lines operate in Seoul, with a total length of 116.5 km. The system has 102 subway stations and 720 trains operating at 3 to 6 minutes' regular intervals, moving 2.2 million passengers daily. The share of subway passengers is 16.8 percent. Comparing the modal split with some other metropolitan cities in the world, Seoul's subway system is still in an infant stage (Tokyo 76 percent, London 75 percent, New York 72 percent, Paris 53 percent).

The number of vehicles in Pusan has increased from 18,798 in 1970 to 152,899 in 1987. The road ratio in Pusan is 11.6 percent, much smaller than Seoul (17 percent) and Taegu (14 percent). Considering the high cost of road construction, requiring over US\$500 million to raise the road ratio by 1 percent, radical improvement in road capacity can hardly be expected in the near future. In 1985, the first line of the Pusan subway system was opened. Pusan became the 65th city with a subway system in the world. Since Pusan is surrounded by mountains in the north and the Pacific

Ocean in the south, the physical expansion is only possible on the plains of Kimhae and Yangsan in the north and Myungji and Noksan to the west. The development of a mass transit system will enable a further expansion of the city to those areas, and the city has a plan to complete a five-line subway network with a total length of 109.1 km.

Although the port of Pusan was opened in 1876 as an international port, the dramatic expansion of foreign trade literally transformed Pusan into an international harbor during the 1960s. More than one-third of the cargo to and from Korea passes through Pusan port (PCC, 1983). Currently, the port can harbor five 50,000-ton container vessels and five grain vessels at the same time, and also has a 79-vessel docking facility for smaller ships. Annually, 28 million tons of cargo can be moved at the port with modern facilities. In addition to the main port of Pusan, Kamchun port is under construction. When completed, the port will be equipped with a 7.73-million-ton loading capacity.

Housing and Real Estate

The population density of Seoul is 17,000 persons per sq.km., much higher than Tokyo (14,000 persons per sq.km.) and New York (8,600/sq.km.), and two to four times higher than those in Pusan and Taegu. The housing-unit-to-household ratio in Seoul was 61.5 percent in 1979. It improved slightly to 61.7 percent in 1980 but by 1988 the ratio dropped again to 59.5 percent. About 14,776 households in Seoul are living in housing units under minimum standards.

Housing affordability is becoming an important issue. Like Tokyo, the price increase of real estate in Seoul is outrageous. From 1985 to 1990, the price of residential lots quadrupled in better residential areas. The living area of one Pyung (3.3 m²) of a dwelling unit cost US\$10,000 in high-density high-rise apartment developments in Kangnam area, a better residential area south of the Han River. A three-bedroom unit is normally priced at between US\$200,000 and US\$300,000 in many areas, leading the government to establish new towns in the vicinity of Seoul to stabilize housing prices. The plan is to control real estate prices nationally by building two million dwelling units by 1992. About 292,000 of the family units are planned to be located in five new towns around Seoul. In addition, many housing projects are underway in the capital, as well as in existing satellite cities, including Incheon, Euichungbu, and Bucheon.

Pusan had 481,258 dwelling units in 1987. Among them, multiple dwelling units constitute 34.4 percent of total dwelling units; the rest are singles. The home ownership ratio in Pusan is 57.7 percent lower than the national average of 70.9 percent and also those of the urban areas in general. As of 1989, there are about 40,000 applicants who have made the bank deposits required for the purchase of new housing units at the official price. In addition, about 30,000 housing units are regarded as housing under minimum standards. According to the plan by the Construction Ministry, 390,000 new housing units will be constructed in Pusan by 1992.

Environment

Air pollution is becoming an increasingly important problem in Seoul. The city constitutes 0.6 percent of the nation's land, where 10 million people, or 24 percent of the nation's population, reside. There are over one million cars, and their number is increasing exponentially. However, the major cause for air pollution has been coal-fired heating systems. The annual oil and coal consumption in Seoul is 5.7 million Kl for oil and 8.2 million tons for coal. The total pollution material emitted is estimated at 899,000 tons per year, of which 39.5 percent is from oil and 60.5 percent from coal.

Older residents of Seoul remember the good old days when one could swim in the Han River and drink from it without any worries. However, the river has been polluted with industrial wastes, massive use of chemical fertilizer, and household sewage, which now threatens to reach the limits of its self-cleansing capacity. The production capacity of drinking water had been expanded, but fails to reach every citizen. Except for the squatter settlements on the high ground, water supply in the city is relatively abundant.

SUBURBANIZATION AND NEW TOWN DEVELOPMENT

Growth Management

The Korean government has attempted to control the growth of Seoul and the capital region since the early 1970s by emphasizing balanced regional development, inducing manufacturing activities in the provincial regions. Dispersing industry away from large metropolitan areas also lessens the financial burden of providing public goods and services in the big cities and the cost of congestion. Strict land use and environmental restrictions have been applied to new development as well as existing industrial activities in Seoul and Pusan. In addition, financial and tax incentives are granted to industries relocating from Seoul to the industrial estates in provincial areas. The growth of the new industrial cities is supported heavily by the government with a generous capital investment on roads, water supply, and other public facilities. Changwon, Ulsan, and Gumi in the southeastern coast region and Ansan in the west of Seoul have attained rapid growth in population and industrial activities under the government's initiatives.

The Growth Control and Management Plan of the capital region has been divided into five zones: (1) Relocation Promotion Area; (2) Restrictive Reorganizing Area; (3) Development Promotion Area; (4) Natural Conservation Area, and (5) Development Reservation Area. Seoul falls into the Relocation Promotion Area, where all manufacturing activities are to be relocated from the area except for limited types of activities essential to urban life. Under the strict land use and environmental codes, entry to Seoul has been restricted for manufacturing industries. Consequently, industrial land is simply unavailable at a reasonable price in the Seoul area. Under these circum-

stances, the entry of industries attracted to the agglomeration economies in Seoul has shifted into the satellite cities around the capital.

The rural areas in the capital region and the satellite cities of Seoul have absorbed the influx of the people and industrial activities seeking the city's agglomeration. Subsequently, the growth rates of population and employment in Seoul have tapered off significantly from the peak of 9.4 percent in 1970. The satellite cities have been growing rapidly, as in Bucheon (14.2 percent), Anyang (12.6 percent), and others. In addition, the rural counties surrounding Seoul—Namyangju, Koyang, Kwangjoo, and Yongin— have grown faster than the national average in the rural countries (Gun).

High-Technology and R & D

High-tech industry is expected to grow at the rate of 10 percent to the year 2000 in Korea (KRIHS, 1986). The number of high-tech industries is growing at an annual rate of 9.5 percent, 1.4 percent faster than the entire manufacturing sector during the period 1980-1984. The government is aiming at the share of R & D investment to be raised up to 2.5 percent of the GNP by 1991 from the current level of 2 percent, principally in the semi-conductor, computer, fine ceramics, and auto industries. The high-tech industries, classified by R & D investment and technological content, have concentrated in Seoul and its satellite cities, with Seoul the venue for over 60 percent of semi-conductors, and more than 50 percent of all of the high-tech items produced in the capital region.

This concentration of the high-tech industries in Seoul and capital region is paralleled by the number of higher educational institutions and research institutes operated by manufacturing industries. An industry survey showed that proximity to a research institution is singled out as one of the more important locational factors for high-tech industry (KRIHS, 1986). Another important factor for high-tech industries is proximity to Seoul and its agglomeration advantages (see Table 11-2). It is noteworthy that six locational factors chosen out of 20 are directed toward the unrefutable attraction of the Seoul area for high-tech industries. In 1989, more than two-thirds of the industry's research activities were located in the capital region, one-quarter of them located in Seoul. However, by 1989, there were also 136 research institutions located in the southeast region, including 22 in Pusan. Most of those are affiliated with the manufacturing establishments located in Taegu and cities neighboring Pusan.

Direct Foreign Investment and Overseas Services

At the end of 1989, there were 3,170 cases of inward foreign direct investment (FDI) totaling US\$7.0 billion projects in Korea. Two-thirds are from Asian countries, amounting to US\$3.8 billion, mostly (1,922 cases and US\$3.5 billion) from Japan. The United States is the second-largest

Table 11-2

Major Locational Factors for High-Tech Industries

<u>Factors</u>	<u>Response</u>
1. Proximity to Research Facility	28.8
2. Proximity to Capital Region	15.0
3. Agglomeration	17.5
4. Airport and Expressway	10.0
5. Skilled Personnel	36.3
6. Others	3.8

investor, with 717 cases totalling US\$1.9 billion. West Germany, Hong Kong, and the United Kingdom rank next, respectively.

About three-quarters of the FDIs are invested in the manufacturing sector. While only 3.1 percent in the manufacturing sector is located in Seoul, the satellite cities and its suburbs have 35.7 percent of the entire inward FDI in the nation. Thus, the 38.8 percent of the FDI projects in manufacturing are located in the capital region. In terms of the FDI in manufacturing, Kyongnam province has the largest share, 26.7 percent, and Kyonggi and Chunam provinces are the next in order. In the service sector, Seoul dominates both in number of cases (82.9 percent) and the amount of investment (90.9 percent) (see Table 11-3). In particular, Seoul holds 70.9 percent of the overseas-originated service industries. More specifically, 33 out of 37 foreign financial institutions are located there, and 22 out of 43 hotels, 76 of 114 trading companies, and 25 of 30 communication services.

Tourism

The number of foreign visitors to Korea more than doubled in the 1980s. In 1987, about 2 million tourists came to Korea. Most tourists visit Seoul, and close to half the tourists visit Pusan. According to a survey, Seoul seems to be the most attractive place to tourists, followed by Pusan and the historical and cultural places in the capital region. Although the Seoul Olympics had some effects, the number of foreign visitors has been increasing steadily, most coming still to sightsee. However, the share of sightseeing trips has been declining. Even in the Olympic year of 1988, the portion declined by 4 percent.

According to a 1989 survey, about 93 percent of the foreign visitors come to the capital region during their trips in Korea. Most use tourist hotels, about 60 percent of customers registering at tourist hotels being foreign tourists (KTDI, 1989).

NEW ROLE FOR THE OLD CITY

The nation has been ruled under a centralized bureaucratic system for more than 500 years. During the last three decades of rapid industrialization, Seoul has taken the lion's share of the nation's economic growth, first in manufacturing and, more particularly, the services sector. The locational advantage of Seoul can be attributed to its agglomeration and infrastructure advantages over long periods of time. However, the most powerful element of Seoul's attraction seems to be closely tied with socio-cultural elements in Korean society. An old Korean saying, "Ponies to Cheju Island, Boys to Seoul," sums up the locational advantage of Seoul as the source of power and material prosperity under the centralized feudal system. This traditional idea of Seoul has lingered on in Korea to the modern era. As Korea increasingly reaches out to link with the cities and economies of the Pacific Rim region, this role will assume greater importance.

Table 11-3

Direct Foreign Investment (Inbound) by Region

<u>Region</u>	<u>Cases</u>				<u>Amount</u>			
	<u>Manufacturing</u>		<u>Service</u>		<u>Manufacturing</u>		<u>Service</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>US\$m</u>	<u>%</u>	<u>US\$m</u>	<u>%</u>
TOTAL	1,301	100.0	321	100.0	3,184,917	100.0	2,215,369	100.0
Seoul	209	16.1	266	82.9	297,590	9.3	2,014,503	90.9
Pusan	70	5.4	18	5.6	55,029	1.7	103,066	4.7
Taegu	26	2.0	2	0.6	14,041	0.4	2,030	0.1
Incheon	120	9.2	7	2.2	176,610	5.5	10,852	0.5
Kwangjoo	1	0.1	-	-	125	0.0	-	-
Kyonggi	405	31.1	5	1.6	751,197	23.6	7,446	0.3
Kangwon	9	0.7	-	-	20,726	0.7	-	-
Chungbuk	52	4.0	1	0.3	173,827	5.5	3,000	0.1
Chungnam	49	3.8	-	-	90,900	2.9	-	-
Jeonbuk	39	3.0	-	-	77,494	2.4	-	-
Jeonnam	29	2.2	-	-	409,738	12.9	-	-
Kyongbuk	95	7.3	3	0.9	266,429	8.4	2,088	0.1
Kyongnam	195	15.0	8	2.5	849,302	26.7	18,420	0.8
Cheju	2	0.2	11	3.4	1,909	0.1	53,964	2.4

Note: DFI data are based on permission by the government.

Source: Department of Finance, Foreign Investment Data, 1989.

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CHAPTER 12

TAIPEI: FROM INDUSTRIAL CENTER TO INTERNATIONAL CITY

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TAIWAN AND THE NICS

During the 1980s, the rapid economic growth of the Asian newly industrialized countries (NICs) captured the imagination of many policymakers in struggling economies and earned the accolades of observers of economic development policies. However, comparatively less attention has been paid to the urban development consequences of such rapid economic growth.

Taiwan, with a population of about 20 million in 1990, ranked as the 13th-largest economy in the world. Commanding one of the world's largest trade surpluses, it is among the leading exporters of manufactured goods. It is also emerging as one of the major sources of investments in Asia and beyond. The rapid economic growth of Taiwan has been accompanied by rapid urbanization, a process most evident in the capital city, Taipei. Taipei Municipality, one of three cities directly administered by the central government, has experienced rapid population growth and urban expansion which spills over into the surrounding regions.

This chapter examines the changes in Taiwan's economy and its impacts on the urban economy of Taipei, as well as the urban development consequences in its metropolitan area. It canvasses the urban issues now confronting the policymakers of Taipei, and seeks explanations for the underlying processes.

EXPORT-ORIENTED URBANISM

Taipei, the capital city in a country renowned for its export-oriented industrialization, has experienced remarkable changes during the last four decades. Since it is one of the few cities illustrative of this type of economic development, the question can be raised whether the type of urbanization process experienced by Taipei, under export-oriented industrialization, is different from the form of urbanization experienced under other types of economic changes. Are there distinguishing features of this urbanization process in Taipei which could be identified with export-oriented economic policies?

Theories About Asian Urbanization

A review of some of the major works on Asian cities and claims made about their distinguishing features provides a basis for understanding the processes of urbanization of cities in the NICs.

Terry McGee (1967), in his book *The Southeast Asian Cities*, debunked the assumption that Asian urbanization is necessarily the same as urbanization in the industrialized countries. In particular, he raised questions about the applicability of analytical models developed in the western industrialized nations. McGee argued that the Southeast Asian cities of the 1950s and 1960s were largely commercial centers with a significant percentage of ethnic communities and characterized by a pattern of mixed land uses. In subsequent works, he examined the Asian primate city's role as an enclave of western capitalism and as an export platform (McGee, 1981; Armstrong and McGee, 1985).

Other authors have continued this theme and attempted to capture the pattern of urbanization and urbanism in Asia. Friedmann (1979) provided a theoretical framework linking the urbanization process with national economic development. There is also sustained interest in the consequences of urban growth (Dear and Scott, 1981) and development due to the international division of labor and the emergence of world cities (Friedmann and Wulff, 1982). Dear and Scott (1981) pointed to the increasing inequalities in the cities under capitalism, and the process of capital accumulation and their impacts on the built environment. Part of their focus was on the role of the State as provider of public goods, regulator of the economy, social engineer, and social arbiter. Friedmann and Wulff (1982) turned to the implications of international financial flows on the urban processes and characterized world cities as urban centers linked to the international financial system, with an employment structure largely based on the professional and personal service industries. The world cities are also said to be characterized by increasingly unequal distribution of income. Their economic structure is said to be largely based on finance, banking, commerce, and other tertiary industries as befitting their roles in the global financial system. They raised the specter of a city divided. In an increasingly unequal economic and social structure, they identified two main groups: highly paid professionals; and those who are lowly paid, providing personal services, and often with little or no prospects of upgrading their employment or wage.

Others, more concerned with the changing communications technology, have projected an exciting prospect of the new urban forms and the global systems of cities made possible by such linkages (Ernst and Jaeger, 1989; Brotchie et al., 1987).

These discussions about the features of the Asian cities and the characteristics of the types of urbanization, under different economic regimes and technological changes, raise the interesting question whether the economic processes at work in the NICs carry with them unique urbanization consequences and processes. If so, what are their features? How would these features change over the period of rapid industrialization characteristic of the NICs? For instance, the type of manufacturing which forms the backbone of much of the export-oriented industrialization is often characterized as 'footloose.' Some of the activities are knowledge-intensive, but others are chiefly labor-intensive. How do they affect the urbanization process?

Characteristics of Export-Oriented Urbanization

For the purposes of this discussion, the term 'export-oriented urbanism' will be used to refer to the processes at work in the NICs. The following are working hypotheses framed to facilitate this discussion on the urban development of Taipei. Export-oriented urbanism is hypothesized to be characterized by: an employment structure with an increasing proportion of employment in the manufacturing sector during the process of rapid economic development and reaching an absolute dominant number of those employed; and, conversely, a rapid decline of the proportion and the absolute number of those engaged in the primary sector; and with a high percentage of employment in the tertiary sector throughout the process of development. It is said to result in a rapid and significant decline of official unemployment. There is a convergence of personal income distribution, though urban and rural differences remain high. Increasing primacy is fueled by a large and rapid influx of migrants from the rural areas and smaller urban centers to the major urban centers. There is an increasing mismatch of the rate of urbanization with the supply of urban infrastructure during the drive towards sustained economic growth. Finally, rapid urbanization of the rural fringe occurs, converting previously agricultural uses to urban uses.

These hypotheses can be examined in light of the evidence from Taipei.

ECONOMIC DEVELOPMENT WITH CONTRADICTIONS

Understanding the development of Taipei must be based on an appreciation of the context of the remarkable economic performance of Taiwan. The structural features embodied in the rapid economic growth of Taiwan are embedded, and are likely to be exaggerated, in the processes which underlie the urban development of Taipei.

Research of High Growth

With sustained injection of economic aid from the United States, the policymakers of Taiwan, beginning in the 1960s, pursued an export-oriented industrialization strategy (Haggard and Cheng, 1987). The success of this strategy is widely heralded. During the period from 1964 to 1973, the growth rate of per capita income (in 1981 constant prices) in Taiwan was as high as 11.5 percent in 1972, with the lowest being 4.8 percent in 1965 (Taiwan Statistical Data Book, 1989). The annual growth rate of per capita income was maintained at a high level after a quick recovery from the "oil shock" of 1973 and reached as high as 15.2 percent in 1986, though this has moderated to a growth rate of around 10 percent during the second half of the 1980s.

This remarkable record of economic growth, similar to that of the other NICs, has been achieved under world conditions and within a local context unlikely to be duplicated elsewhere. The colonial Japanese had left behind a solid agriculture and industrial base for Taiwan, and Taipei was already a large urban center (Chiang and Hsiao, 1985). The nationalist government, in exile

from the mainland, was able to impose land reforms which dissipated the then-existing land-owning elite, and established an equitable agrarian structure which left the government with a relatively free hand to pursue an export-oriented industrial economy (Haggard and Cheng, 1987; Koo, 1987).

Adapting to New Challenges

In the late 1980s, however, the Taiwan economy, in an unprecedented boom, began to face new challenges. The world context in which the export-oriented economies flourished began changing rapidly, and the economy of Taiwan has had to adapt in order to remain competitive.

The chief concern amongst the policymakers in Taiwan is no longer the pursuit of rapid economic growth, but is more focused on remaining competitive and the rapid shift towards a technology-intensive economy during the 1990s. In addition to the public sector formulating more major projects, such as new science cities and R&D centers aimed at positioning the Taiwan economy to deal with the challenges ahead (Chien, 1990), the private sector has been busy seeking out investment opportunities in other parts of Asia.

Policymakers and entrepreneurs alike recognize that the Taiwan economy is in a period of restructuring, with many of the labor-intensive manufacturing which had served Taiwan so well during its drive for export-oriented industrialization now having to shift to other parts of Asia. Activities such as the making of Christmas-tree lights, shoes, and umbrellas have mostly shifted to other countries in Southeast Asia. Rising labor costs in Taiwan mean that it is no longer the haven for labor-intensive manufacturing. Even in the electronics and electrical equipment sector (E&E), this is increasingly the case. Much of the work carried out in the E&E sector was the labor-intensive aspect of the mass production process. Increasingly, other Asian nations with much lower unit labor costs are assuming these types of production. Even Taiwan-based electronic firms are in the process of shifting part of their operations off-shore (*Leader*, Oct. 1989; *Commonwealth*, Oct. 1989). Through this process of restructuring, the expectation is that the Taiwan economy will be strengthened and become more competitive.

The urban consequences of the rapid economic growth of the 1970s and 1980s, and significant government intervention in the economic processes, are full of contradictions. The rapid population growth, fuelled initially by mainland migration and subsequently by rural to urban migration, and the concentration of economic activities around Taipei, are familiar processes at work in other developing economies. Taiwan, on the other hand, boasts a very high home ownership rate that few other developing economies have achieved. Yet the aspirations of many of the population to home-ownership is now becoming more remote, as the cash-rich economy created a climate for speculative investments during the last few years of the 1980s (*Commonwealth*, Oct. 1989). Reportedly, between 1986 to 1989, the average price rise of residential units were on the order of 3 to 5 times, while salaries and wages rose only 20 to 30 percent.

Other urban problems are now receiving intense public attention. Taipei has environmental problems representative of a developing economy and those characteristic of a more industrialized economy. Most of the problems stem from years of single-minded development of the export-oriented economy, to the neglect of providing adequate urban infrastructures. Surrounded on three sides by hills, Taipei's urban pollution problems are further exacerbated by increasing vehicle ownership — a sign of prosperity but contributing to 90 percent of the air pollution problem.

Foreign Investment and Trade

To place into context the type of urbanism observable in Taiwan, it is necessary to briefly sketch its international links by examining the data on foreign investments and foreign trade.

Due to the way information is made available in Taiwan, it is possible to distinguish the investments made by overseas Chinese from those made by other foreign investors. Table 12-1 gives the cumulative foreign investments in Taiwan by sector and by source of investment. It shows that the overseas Chinese and other foreign investors have very distinct patterns of investment in Taiwan. The overseas Chinese tend to invest in the services, non-metallic and mineral products, banking, and insurance sectors. Other foreign investors have been most active in the electronics and electrical products, chemicals, services, and machinery equipment and instruments.

Due to the much larger sums invested by the foreign investors, a comparison on a sectoral basis shows that they dominate (Table 12-2). Nevertheless, it is interesting to note that on a sector-by-sector basis, overseas Chinese tended to invest in highly labor-intensive sectors — such as construction and textiles — which are not necessarily technologically innovative.

If the data on foreign investments were examined in terms of the world regions from which they originate, then it is quite clear that Asian countries, in particular Hong Kong, Japan, and those in Southeast Asia, have always had significant investment links with Taiwan (Tables 12-2 and 12-3). Indeed, it seems that it is only in the latter half of the 1980s that Asian investments in Taiwan has become less than 40 percent of the total.

In terms of trade, however, Asia has a different role vis-à-vis Taiwan. Asia is the only region with which Taiwan has had a consistent trade imbalance, and this is particularly so in contrast to the other regions during the 1970s and 1980s, the two decades during which Taiwan achieved its rapid economic development (Table 12-4). The trade imbalance with Asia is largely due to the imports from Japan, and this is dominated by imports of electrical machinery and equipment (32 percent of the total value of imports from Japan in 1988) for the electronics and electrical equipment sector.

In summary, since in the mid-1960s, Taiwan has achieved a huge trade surplus with non-Asian countries, in particular those in North America. But Asia has been one of its main sources of investment throughout the post-war period, surpassed only in the 1980s by the USA and some European countries. Even more significantly, one of the highest-growth sectors in Taiwan, the

Table 12-1**Foreign Investments in Taiwan by Sector, 1952-1989**
unit=US\$1,000 (as percentage of source of investment)

<u>Sector</u>	<u>O/S Chinese</u> <u>%</u>	<u>Other</u> <u>%</u>	<u>Foreign Total</u> <u>%</u>
Food and Beverage	3.65	4.72	4.55
Electronics and Elec. Products	4.26	29.13	25.19
Textiles	7.71	1.60	2.56
Paper & Paper Products	2.45	0.48	0.79
Chemicals	6.97	21.44	19.15
Non-Metallic Mineral Products	16.87	2.10	4.44
Basic Metals and Products	2.97	7.70	6.95
Machin. Equipment and Inst.	2.79	9.56	8.49
Transportation	4.51	2.17	2.54
Construction	5.45	0.47	1.26
Banking & Insurance	9.26	4.01	4.84
Services	24.44	11.04	13.16
Others	8.68	5.58	6.07

Table 12-2**Foreign Investment by Sector and by Source**
(as percentage of each sector)

<u>Sector</u>	<u>O/S Chinese</u> <u>%</u>	<u>Other</u> <u>%</u>	<u>Foreign Total</u> <u>%</u>
Food & Beverage	12.70	87.30	100.00
Electronics and Elec. Products	2.68	97.32	100.00
Textiles	47.57	52.43	100.00
Paper and Paper Products	48.89	51.11	100.00
Chemicals	5.76	94.24	100.00
Non-Metallic Mineral Products	60.12	39.88	100.00
Basic Metals and Products	6.76	93.24	100.00
Machin. Equipment and Inst.	5.20	94.80	100.00
Transportation	28.10	71.90	100.00
Construction	68.65	31.35	100.00
Banking and Insurance	30.26	69.74	100.00
Services	29.40	70.60	100.00
Others	22.64	77.36	100.00

Table 12-3

Foreign Direct Investment by Source, 1952-1989

a. By major source

<u>Year</u>	<u>Japan (Os/C&J)*</u>	<u>HK</u>	<u>USA</u>	<u>Europe</u>	<u>All Others</u>	<u>TOTAL</u>
1952-59	21.66%	19.88%	46.84%	0.00%	11.63%	100.00%
1960-69	17.27%	12.61%	41.25%	6.30%	22.58%	100.00%
1970-79	18.67%	9.90%	26.84%	12.09%	32.50%	100.00%
1980-89	29.52%	3.67%	23.92%	16.49%	26.40%	100.00%

b. Asian sources

<u>Year</u>	<u>Japan (Os/C&J)*</u>	<u>HK</u>	<u>OsChinese Others</u>	<u>Probable Asia Subtotal</u>
1952-59	21.66%	19.88%	11.38%	52.91%
1960-69	17.27%	12.61%	15.83%	45.71%
1970-79	18.67%	9.90%	21.64%	50.21%
1980-89	29.52%	3.67%	6.77%	39.96%

*Overseas Chinese based in Japan, and Japanese.

Source: Taiwan Statistical Yearbook 1990.

Table 12-4

Trade between Taiwan and Major World Regions
(region as percentage of row period)

a. Trade

<u>Period</u>	<u>Asia</u>	<u>Europe</u>	<u>N. Am</u>	<u>Others</u>	<u>Total</u>
IMPORTS					
1952-59	46.03%	9.01%	39.00%	5.96%	100.00%
1960-69	52.76%	9.20%	31.79%	6.25%	100.00%
1970-79	56.87%	11.54%	24.32%	7.27%	100.00%
1980-88	52.87%	12.85%	25.43%	8.85%	100.00%
EXPORTS					
1952-59	83.77%	5.93%	5.41%	4.89%	100.00%
1960-69	55.69%	9.34%	30.03%	4.94%	100.00%
1970-79	35.03%	13.44%	40.63%	10.90%	100.00%
1980-88	32.19%	13.09%	45.67%	9.05%	100.00%

b. Trade Balance

<u>Period</u>	<u>Asia</u>	<u>Europe</u>	<u>N. Am</u>	<u>Others</u>	<u>Total</u>
1952-59	-17.78%	14.22%	95.79%	7.77%	100.00%
1960-69	38.73%	8.53%	40.22%	12.52%	100.00%
1970-79	-337.85%	45.77%	319.29%	72.79%	100.00%
1980-88	-31.45%	13.85%	107.94%	9.66%	100.00%

Source: Taiwan Statistical Yearbook 1990.

information-technology sector, is becoming more reliant on its Asian neighbors for its hardware imports and, as will be detailed in a subsequent sector, for the expansion of its production.

Population Growth

At the end of the War, Taipei had a population of 401,497, which quickly swelled to 503,450 by 1950 due to the influx of mainlanders (Chiang and Hsiao, 1985). Rapid population growth, sustained by rural-to-urban migration, resulted in a population of 2.68 million by the end of 1988 (Taipei Municipality, 1989). By the year 2001, the population of the Taipei Municipality is forecasted to be 2.92 million (Tsai and Liu, 1988).

Population growth in the various districts of the municipality differ markedly, though. In the twenty years from 1968 to 1988, the population density of some of the older urban districts has gradually diminished while that of the newer districts has increased dramatically.

With a population of 4.98 million in 1984, the Taipei Metropolitan Area's (TMA) share of the population of Taiwan has steadily increased, from 20.65 percent in 1972 to 26.21 percent in 1984 (Taiwan Regional Science Assoc., 1989). The increased population share of the TMA is contrasted by the significant decline of the share of Taipei Municipality within the TMA (Table 12-5).

Though Taipei's share of population has diminished, this by no means indicates it is experiencing an absolute decline. Indeed, the situation is quite the opposite. Changing rates of in-migration is the chief cause of Taipei's falling share of TMA population. Population registration data showed that from the 1970s to the early 1980s, net in-migration decreased; however, by the mid-1980s, net in-migration increased again (Table 12-6), reflecting, perhaps, the important shifts in the structure of the metropolitan economy (Chang, 1984). The administrative units neighboring the Municipality have continued to experience large net in-migration. The overall situation, with respect to population growth, is that the absolute size of the population within Taipei and the TMA is growing, but, within the TMA, the major growth of population is no longer in the central urban core but in the metropolitan area outside of the core and largely in the southwestern coastal counties of Taoyuan and Hsinchu — two areas closely linked to the E&E sector. The economic imperatives which underlie this pattern of population growth are explored below.

At the end of 1986, Taiwan had a population of 19.45 million, most of them living on the western coastal strip in seven major cities; the largest, Taipei Municipality, alone had a population of 2.58 million, or 13.3 percent of the total. Chiang and Hsiao (1985) observed that although the size distribution of settlements in Taiwan did not indicate Taipei as a primate city, the concentration of activities and services in Taipei nevertheless denotes it clearly as a primate center. Little has changed since.

As the premier urban center of Taiwan, Taipei has grown well beyond its administrative boundaries, and the economic field of which it is the center covers a large geographic area (Tsai,

Table 12-5

Population Share of Taipei and the Taipei Metropolitan Area, 1972-1984

<u>Area</u>	<u>1972</u>	<u>1976</u>	<u>1980</u>	<u>1984</u>	<u>1986</u>
TMA Population (in millions)	3.157	3.743	4.40	4.98	5.254
TMA as Percent of Taiwan	20.65	22.68	24.71	26.21	27.01
Taipei Municipality as Percent of TMA	60.47	55.81	50.47	40.17	n.a.

Source: Regional Science Association of Taiwan (1986: 78); Tsai (1989).

Table 12-6

Net In-Migration Rate for Areas in the Taipei Metropolitan Area

<u>Area</u>	<u>1972</u>	<u>1976</u>	<u>1980</u>	<u>1984</u>
TMA	22.82	26.67	16.36	12.29
Taipei	19.7	3.16	-4.02	13.53

Source: Regional Science Association of Taiwan (1986): 76.

1989). Given the spatial concentration of activities and population, the changes in Taipei Municipality must be viewed in conjunction with the areas closely linked economically or associated as part of its service catchment area.

The development of Taipei is examined, where appropriate, under three overlapping spatial units: the Taipei Municipality; the Taipei Metropolitan Area (TMA), which includes the Taipei Municipality and most of Taipei County; and the Northern Region, which includes the Taipei Metropolitan area plus two other cities and three other counties (Figure 12-1).

There is no general agreement on the exact definition of the Taipei Municipality. Chiang and Hsiao (1985) defined the Taipei Metropolitan Area to include the Taipei Municipality, Keelung Municipality, Taipei County, and Taoyuan County — a definition they noted as conforming to the planning unit defined by the Council of Planning and Development in 1979. However, recent studies have taken a different view. The definition adopted here follows that adopted in a study made by the Taiwan Regional Science Association for the Ministry of Interior, which defines the Taipei Metropolitan Area (TMA) to include Taipei Municipality and most of Taipei county, but excluding four townships, and including one township from Taoyuan County.

Differential Employment Growth Between Region and Sector

Even with rapid industrialization, Taipei Municipality's share of manufacturing employment has slipped steadily since 1976, to around 20 percent of the total of Taiwan by 1986 (Table 12-7). Reflecting its role as the financial and commercial center, however, the share of employment in commerce and finance, insurance, and banking has been increasing at a modest rate, though the total employment in this sector still does not represent a very large percentage of the total.

The Northern Region's share of manufacturing employment in Taiwan, about 47 percent of the nation, has remained relatively the same for the period of 1976-1986 (Construction and Planning Administration, 1989). Indeed, the concentration is overwhelming in some sectors. The Northern Region has just under 70 percent of the employment in the electrical and electronic machineries and equipment sector — the key export sector representing 27.5 percent of the total value of Taiwan's industrial exports in 1988.

Behind the continued economic preeminence of the Northern Region, numerous changes are underway. Increasingly, manufacturing activities have shifted from Taipei to the cities, towns, and counties within the metropolitan area and the Northern Region. The Municipality's share of the region's total manufacturing employment has fallen faster than its share of the nation as a whole (Table 12-7).

Within each sector, there are significant differences in locational concentration. Based on location quotients calculated for the years 1976, 1981, and 1986, there were ten manufacturing sectors considered to be "exporting" in 1986, two more than was the case in 1976. The four most

Figure 12-1

Taipei Municipality and Taipei Metropolitan Area

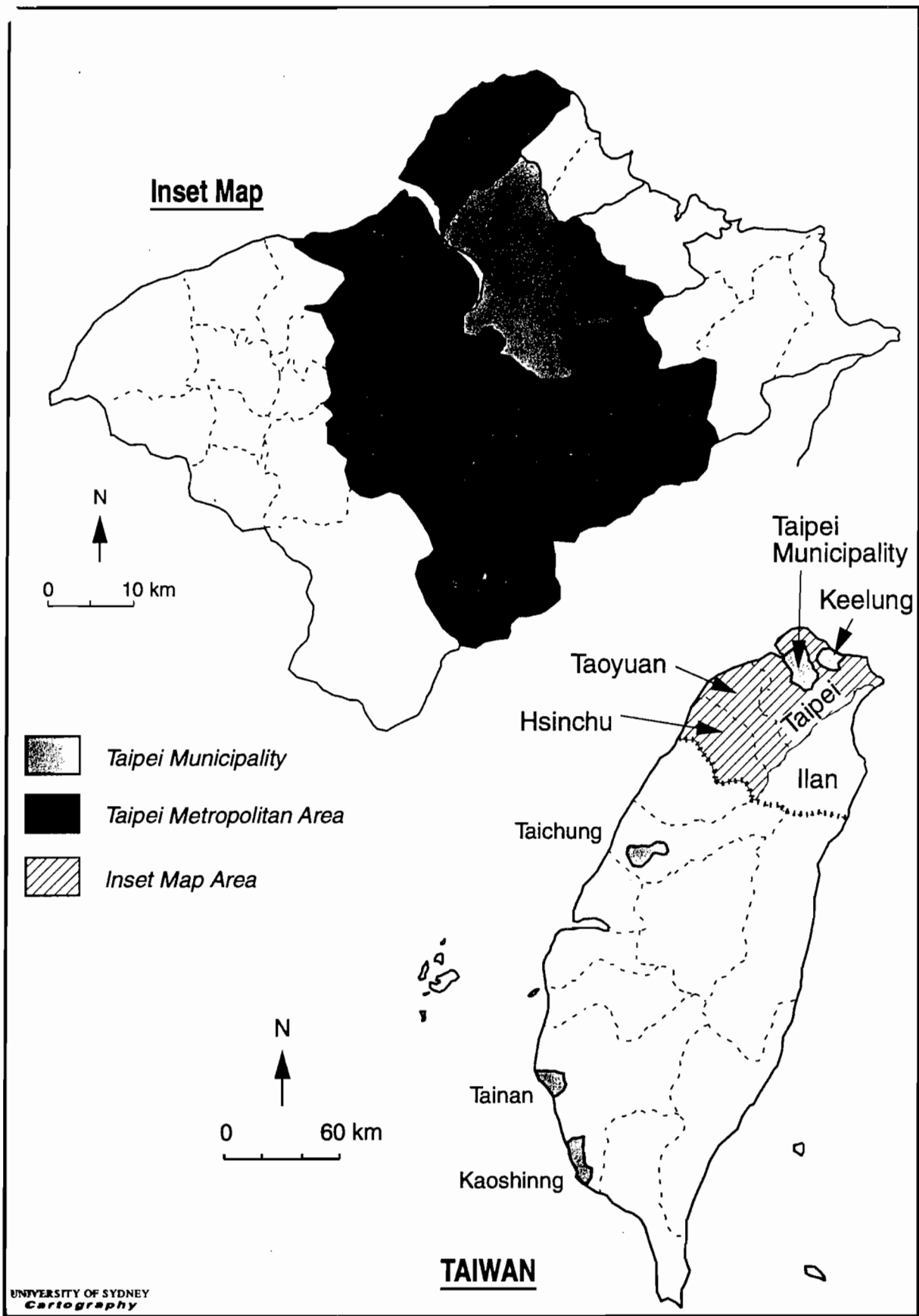


Table 12-7

Employed Population by Industry in Selected Years

	<u>Mining</u>	<u>Water,</u>	<u>Trans.,</u>	<u>Finance</u>	<u>Gov't</u>				
	<u>Quarry</u>	<u>Manuf.</u>	<u>Elect.</u>	<u>Const.</u>	<u>Comm.</u>	<u>Storage</u>	<u>Ins.</u>	<u>Comm'ty</u>	<u>TOTAL</u>
1976									
TAIWAN	1.78%	51.03%	8.87%	0.66%	6.57%	22.07%	3.18%	5.84%	100.00%
NORTHERN REGION	2.64%	47.92%	9.59%	0.66%	6.87%	23.45%	3.78%	5.10%	100.00%
Taipei Metro	3.17%	41.98%	9.31%	0.61%	6.73%	28.39%	4.52%	5.28%	100.00%
Other Northern	1.57%	60.00%	10.17%	0.75%	7.15%	13.37%	2.26%	4.73%	100.00%
Taipei Municipality	2.52%	21.88%	12.54%	0.78%	8.82%	39.88%	7.10%	6.48%	100.00%
1981									
TAIWAN	1.02%	49.24%	9.74%	0.69%	6.72%	22.76%	4.44%	5.38%	100.00%
NORTHERN REGION	1.37%	46.38%	10.06%	0.67%	7.46%	23.80%	5.26%	5.01%	100.00%
Taipei Metro	1.18%	39.94%	9.31%	0.66%	7.57%	29.07%	6.71%	5.56%	100.00%
Other Northern	1.75%	59.27%	11.55%	0.69%	7.25%	13.23%	2.36%	3.90%	100.00%
Taipei Municipality	0.27%	19.53%	11.91%	0.74%	10.10%	40.03%	10.17%	7.24%	100.00%
1986									
TAIWAN	0.52%	53.14%	6.78%	0.75%	6.29%	21.90%	5.02%	5.60%	100.00%
NORTHERN REGION	0.56%	48.20%	6.59%	0.66%	7.48%	25.13%	5.96%	5.43%	100.00%
Taipei Metro	0.46%	40.54%	6.72%	0.68%	7.68%	30.78%	7.50%	5.63%	100.00%
Other Northern	0.77%	65.96%	6.28%	0.63%	7.00%	12.03%	2.39%	4.95%	100.00%
Taipei Municipality	0.13%	20.16%	8.60%	0.68%	10.00%	42.03%	11.29%	7.11%	100.00%

important exporting sectors, in terms of the size of the location quotient, are (in descending order): paper, paper products, and printing; beverages and tobacco; chemical products; and electrical and electronics products.

The importance of the first three seem to reflect Taipei's role as the largest urban center, rather than their importance in foreign trade. The other "exporting" sectors are paper and paper products, chemical materials, chemical products, petroleum and coal products, electric and electronic machineries and products, and precision instruments.

In terms of employment, however, the four most important sectors are (in descending order) electrical and electronics, paper and paper products, textiles, and wearing apparel. However, except for the electrical and electronic sector, employment in the other sectors has either grown very modestly (wearing apparel, paper, and paper products) or is in slow decline (textiles).

The electrical and electronic sector is by far the largest employer, just over a quarter of employment in Taipei Municipality and in the Northern Region. A more detailed discussion will follow this brief discussion of the other three sectors.

The paper and paper products sector, with 27,200 employees in 1986, consists of a few very large paper mills to many smaller firms, mainly in printing. Most of those firms in the municipality and in the region are of the latter kind, servicing the publishing and business needs of the largest city in Taiwan.

The textile industry and the closely allied wearing apparel industry had thrived on the low labor-cost structure of Taiwan. Textiles, as a sector, has declined in Taiwan in general (13 percent less employment in the last ten years) and in the Northern Region (14 percent less); but it has not suffered as much decline in the municipality (10 percent). The wearing apparels sector, on the other hand, has been expanding and posting significant employment gains of just over 41 percent in the Taipei Municipality and 48 percent in Taiwan, as a whole, during the period 1976 to 1986. However, these rapid increases reflected the situation during the period of rapid economic expansion in Taiwan, based partly on its comparative advantage of low unit-labor cost. The restructuring process, which began in the second half of the 1980s, would have severe impacts on these labor-intensive sectors, due to the loss of comparative advantage and possibly further trade restrictions imposed by its major markets. For example, in the shoe industry, Taiwan's average monthly wage of around US\$375 is far above that of Thailand at just over US\$100 per month, and that of China, at about US\$25 per month.

THE ELECTRONICS AND ELECTRICAL SECTOR: A CASE STUDY

Taiwan is renowned for its export of electrical and electronics products (E&E), including consumer products, microelectronics, and information technology; and the Northern Region had

70 percent of Taiwan's employment in this sector in 1986. Consequently, the changes in this sector would have significant impacts on the economy of Taipei and its surrounding areas.

The backbone of the information electronics industry in Taiwan is the production of personal computers, components, and accessories. According to Dataquest, the export of personal computers from Taiwan has risen from 5.7 percent of the 1984 world's output, by number of sets, to 10.3 percent by 1988 (quoted in *Leader*, Oct. 1989). The information electronics industry's contribution to Taiwan's total export value has risen from 3.9 percent in 1985 to 9.4 percent in 1989 (*Leader*, Oct. 1989). An understanding of the E&E sector in Taiwan is necessary in order to capture the nuances of the changes now underway.

By the beginning of the 1980s, the E&E sector was already the largest provider of manufacturing employment; in 1986, the sector employed 16.53 percent of all manufacturing workers in Taiwan. In the Northern Region, this concentration has been even more prominent. By 1986, just under a quarter of the manufacturing workers in the Northern Region was employed in the E&E sector. By way of contrast, the next-largest sector in the Northern Region, the "textiles" sector, employed 13 percent of the workers. Varying patterns of concentration can be observed in each administrative area. The Northern Region has 70 percent of Taiwan's employment in the E&E sector. Within the Northern Region, Taipei County has close to 42 percent of the region's share. The absolute size of this sector has increased extraordinarily. Even with a declining share of workers in the E&E sector, the absolute number of workers in this sector in the Taipei Municipality has actually increased 37 percent between 1981 and 1986, indicating both a rapid expansion of the number employed in the sector and the areal expansion to neighboring administrative areas.

International Links in the Information Technology Industries

The information technology industries in Taiwan are closely linked to the same industries in Japan, the United States, and Europe in two respects. Firstly, for the information technology sector as a whole, the imports are largely from Japan and the USA, shifting more towards a heavy reliance on Japan. That country is the source of over 40 percent of the imports, mostly for further processing, while the USA's share decreased from 60 percent in 1982 to under one-third by 1987 (Liu et al., 1990).

Secondly, a complex web of production relationship links the information industries in Taiwan to their counterparts in other countries. The Taiwan-based electronics industries are often either operating as original equipment manufacturers (OEM) or as contractors for such firms from around the world, again notably those from North America and, to a lesser extent, those based in Europe and Japan. In 1988, a breakdown of brand-name production or OEM production in Taiwan was as follows: of the production under foreign-owned firms, 28 percent was produced under their own label and 8 percent as OEM; for Taiwan-owned firms, 20 percent was for their own

label, and 44 percent as OEM. In other words, 52 percent of the microelectronics production was produced as OEM, indicating the heavy reliance of the Taiwan-based manufacturers on overseas contracts. The two largest market areas for both microelectronics parts and micro computers are North America and Europe, representing 85 percent of the total production of both groups.

North American firms such as Texas Instruments, Wang Laboratories, and Digital Equipment, and European manufacturers such as Phillips, all have manufacturing plants located in Taiwan. In turn, the major Taiwan-based computer and electronic equipment manufacturing firms such as Tatung, Multitech, and MITAC sell equipment under their own brand as well as acting as OEM for other companies. The electronics and similar industries in Taiwan are tightly intertwined with their counterparts in Japan, North America, and other centers of development, and are significant players in the global information technology industry.

Large Firms

In a 1989 survey of Taiwan's 1,000 largest firms (including government-owned enterprises) ranked by sales, 248 firms in the E&E sector could be identified — an increase of 49 firms compared to 1987 (*Commonwealth*, July 1990). In terms of size, these firms ranged from below 100 employees to as high as 21,500, with 40 percent in the range of 101 to 400 employees. These 248 firms represent 7.3 percent of the employment and 19 percent of the 1,000 firms' total sales.

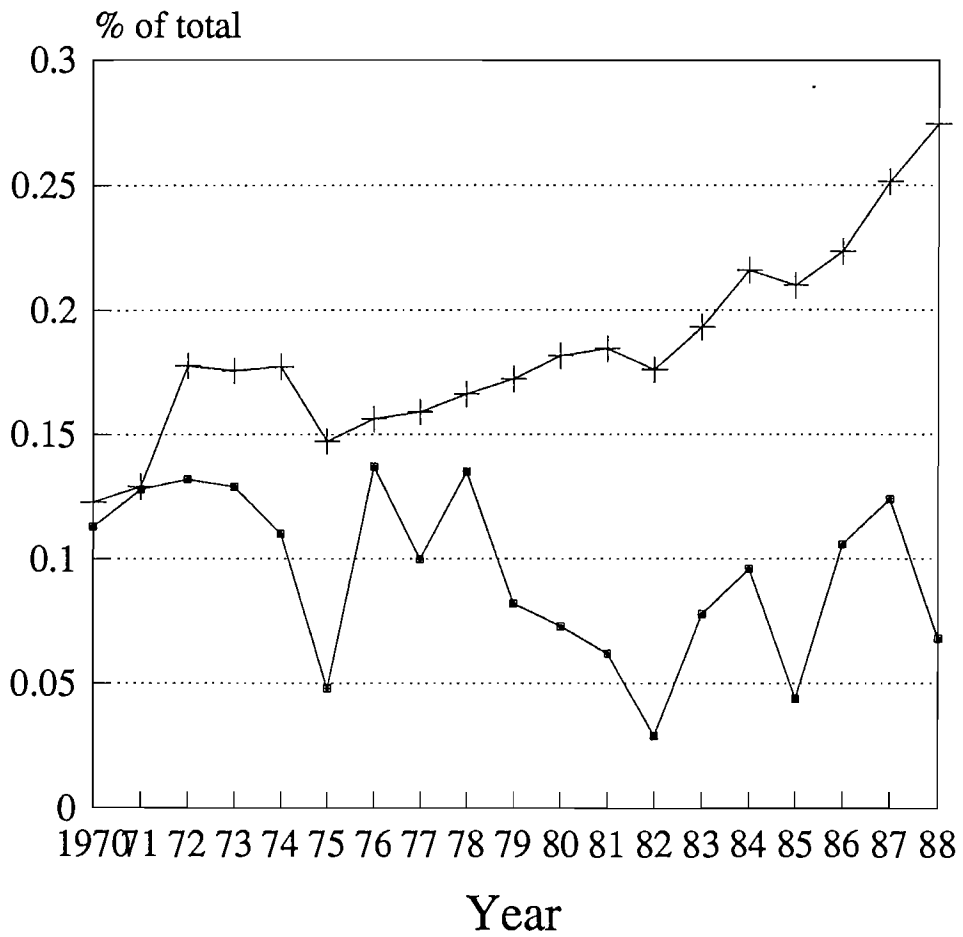
Of the top 100 of the firms surveyed, 31 firms are in the E&E sector, and 13 of them have 50 percent or greater of foreign investments. Thirty-eight of these firms are located in the export-processing zones, and six are located in science parks. Of the twenty largest microelectronics firms in 1988, seven are foreign-owned firms and the others include joint-ventures and firms based in Taiwan (*Leader*, Oct. 1989).

Process of Restructuring

As members of this world-wide industry, the firms in Taiwan are also subject to the same economic imperatives. A process of industrial restructuring, similar to that which took place in the 1970s in the industrialized nations that led to the rapid establishment of electronics components manufacturing plants in Asia and other parts of the world, is now underway; but this time, the firms located in Taiwan are some of the industries being decentralized (*Leader*, Nov. 1989). The repetition of this process can be regarded as a global expression of the profit cycle (Markusen, 1985). As shown in Figure 12-2, the gap between the rate of growth of the value of exports of the E&E sector and that of GDP has widened over the last 15 years.

Figure 12-2

Value of Electrical and Electronics Exports
as Percentage of Total Exports of Taiwan



—■— GDP Growth Rate
—+— E&E %

Concentration in the Northern Region

Within the Northern Region, the E&E sector employment is concentrated in three major administrative areas — Taipei Municipality, Taipei County, and Taoyuan County. Taipei County, with close to 42 percent of the Northern Region's E&E employment, is clearly the administrative unit with the highest concentration of E&E activities, though (unlike Hsinchu City) its manufacturing employment is not nearly as reliant on the E&E sector.

The changes in the spatial distribution of the single largest employer of manufacturing workers, during the period 1976 to 1986, is one of decentralization from the central city to the metropolitan fringe — chiefly southwestward towards the high-tech industrial center at Hsinchu. Data on the concentration of E&E employment in the locality show that in the Hsinchu area, the E&E sector represents about one-third of the total manufacturing employment. A detailed examination of Taipei Municipality reveals that the E&E sector has increasingly become the primary manufacturing employer in the city proper, though manufacturing employment has never dominated within the city itself.

EMPLOYMENT IN TAIPEI MUNICIPALITY

The Services Sector Predominates

Since the 1970s, close to 70 percent of the employment in the Taipei Municipality has been provided by the tertiary sector (Figure 12-3). Manufacturing employment had increased modestly from 24.7 percent in 1971 to 28.6 percent at the end of 1988, largely at the expense of the primary sector (Taipei Municipality, 1989).

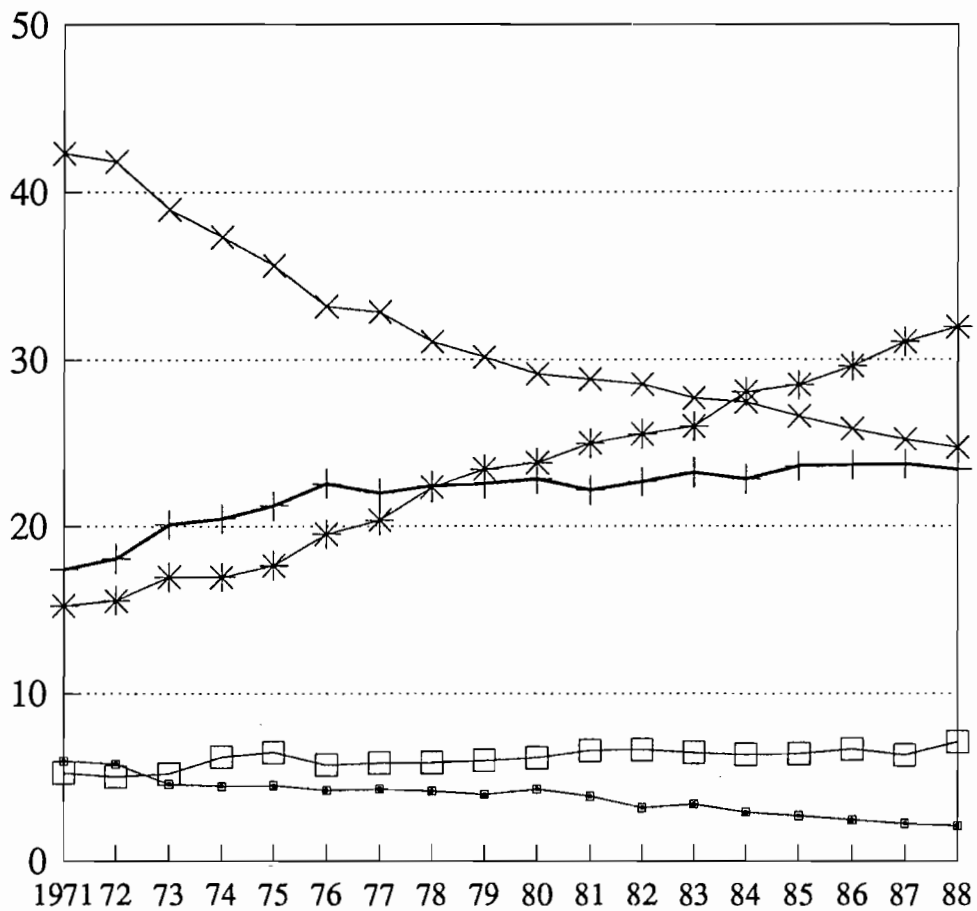
Within the tertiary sector, the sectors which have significantly increased are the 'commerce sector,' with just under 32 percent of all employment, and the 'community and personal service' sector (though experiencing a significant decline) still employing close to 22 percent of the total labor force in the municipality. Surprisingly, even though Taipei is the financial and banking center of Taiwan, it does not employ a large percentage of the labor force, reaching only just over 7 percent by the end of 1988. This is unexpected because, during 1987 to 1989 — with the gradual easing of monetary policy, expansion of activities in the stock market, and changes in the banking laws to allow foreign banks to operate in Taiwan — this sector should have been expanding rapidly. Perhaps the time lag in the changes in regulations and the increase in employment is substantial.

The dominance of Taipei in retailing and wholesale has indeed grown with per capita income, and there has been some diffusion to the satellite cities and outer-ring cities and towns. Unfortunately, there has been no detailed data available since 1981.

There is, however, little doubt that as Taiwan becomes more integrated with the international financial system, employment in this sector could be expected to expand more rapidly. The available data indicate that the finance, real estate, and insurance employment are highly centralized within Taipei Municipality, and even within the central city district itself (Table 12-8).

Figure 12-3

Employment by Major Sectors, Taipei Municipality, 1971-1988



- Agriculture
- +— Manufacturing
- *— Commerce
- Finance/Ins/Banking
- X— Comm/Per/Services

Source: Taipei Municipality Annual Reports.

Table 12-8

Employment in Selective Tertiary Sector in Taipei Metropolitan Region (1981)
(percentages)

<u>Area</u>	<u>Wholesale</u>	<u>Retail</u>	<u>Export Trade</u>	<u>Fin/Bank</u>	<u>Com/Per</u>
Taipei Municipality	83.53	69.35	96.2	90.94	95.32
Satellite Cities	14.08	23.57	3.22	7.77	3.97
Outer Ring Cities and Township	2.39	7.09	0.58	1.29	0.70

Note: Satellite towns include Panchiao, Hsinchuang, Sanchung, Hsintien, Chungho, and Yeongho.

Source: Construction and Planning Administration (1986).

It is anticipated that the tertiary sector will continue to concentrate in the central city. By the year 2001, tertiary-sector employment in the Taipei Municipality will increase by another 20 percent. In contrast, as the suburban areas in the metropolitan areas face expansions in the manufacturing sector, its share of the tertiary sector will decline (Taiwan Regional Science Association, 1986).

With the restructuring process now underway in Taiwan and the increasingly open financial system, it can be expected that the urban economy of Taipei will undergo further changes. Although the information included in the 1986 census has not yet indicated so, it can be expected that there will be a further proportionate and possibly absolute decline in manufacturing-sector employment. The manufacturing decentralization process already underway is one of the factors which will ensure that the employment structure of Taipei will increasingly reflect its role in the international financial and telecommunication systems. The Northern Region is expected to continue to be paramount in the knowledge-intensive sectors, perhaps turning more to the research and development aspects of the sector.

URBAN PROBLEMS

There are many urban issues which will become more contentious in Taipei. A few of the more important ones are discussed briefly, and include the mounting cost of housing, the diminishing rural land at the urban fringe, and deteriorating urban pollution.

Cost of Housing

As stated earlier, some reports put the rise in the cost of housing in the Taipei Municipality between 1986 and 1988 to be 3 to 5 times, far ahead of the rise in wages and salaries (*Commonwealth*, September 19, 1989). Table 12-9 indicates the widening gap between the average cost of housing in Taipei and the average monthly wage for the years 1986 to 1989.

Taipei still has an enviable rate of housing ownership, with 66.5 percent of those in the Municipality and 70.6 percent of those in the TMA owning their residence (1980 census data quoted in Taiwan Regional Science Association, 1986, 165). With the rapidly widening gap between the cost of housing and average wages, many will find it difficult to own their own home. The chief cause of this problem is reportedly the huge surplus funds in the economy. Funds generated by stock market speculations enable individuals and many large companies to seek haven for their cash. Reportedly, 70 percent of the purchases made in the Taipei Municipality, between 1986 and 1989, were by investors or speculators. The frenzied activities of the stock market did much to engender a speculative climate—a factor many observers blame for the unrealistic housing prices.

Table 12-9

Cost of Housing and Average Wage in Taipei
(Unit: NT\$10,000)

<u>Year</u>	<u>Cost of Housing</u> <u>Per 3.3 m²</u>	<u>Average Monthly</u> <u>Wage</u>
1986	7.52	1.54
1987	9.72	n.a.
1988	25.03	n.a.
1989	28.46	1.89

Source: *Commonwealth*, Sept. 1989, p. 219.

Urban Fringe

Rapid industrialization in the metropolitan area meant that there has been significant conversion of rural land to urban uses. In the TMA, the average rate of decline between 1983 and 1986 was -0.02 percent a year, but this is expected to accelerate to -0.46 percent a year. The per capita industrial land use in the non-central city areas of the TMA is much higher than the central city (Figure 12-4). While the general trend is towards smaller area of land per worker, this was not the case in Hsinchu county—the area within the TMA most reliant on manufacturing.

Pollution

Within the TMA area, there are over 500 factories considered to be significant polluters, most of them located in the Taipei basin or along one of the tributaries of the Tan River. In the TMA, only two of the urban districts in Taipei Municipality are served by sewers; the rest of the waste water goes directly into the storm drainage system, which drains into the river system, thus creating severe water pollution problems. With many of the residential areas using septic tanks, the situation has been worsened by rapid urban development and the lack of suitable areas for the proper disposal of the septic waste and drainage. All the rivers and streams in and around the urban areas are polluted, some to the point where they are basically open sewers (Taiwan Regional Studies Association, 1986). Two of the chief industries in the Municipality are chemical products, and paper and paper products. Together they represent one-third of the total water consumption. In the TMA, the textiles and paper and paper products industries together use about 35 percent of the water consumed (Construction and Planning Administration, 1989). The government is now starting to invest in major improvements to the drainage and waste water disposal and treatment systems.

The chief source of air pollution in Taipei is automobiles. In 1983, the dust accumulation rate in Taipei was 15.7 tonne per sq.km., and in Taipei County it was 13.2 tonne/sq.km. With increased affluence, higher vehicular ownership rates can be expected. Without stricter controls over automobile emissions, further deterioration of air quality will be inevitable.

LESSONS OF EXPORT-ORIENTED URBANISM

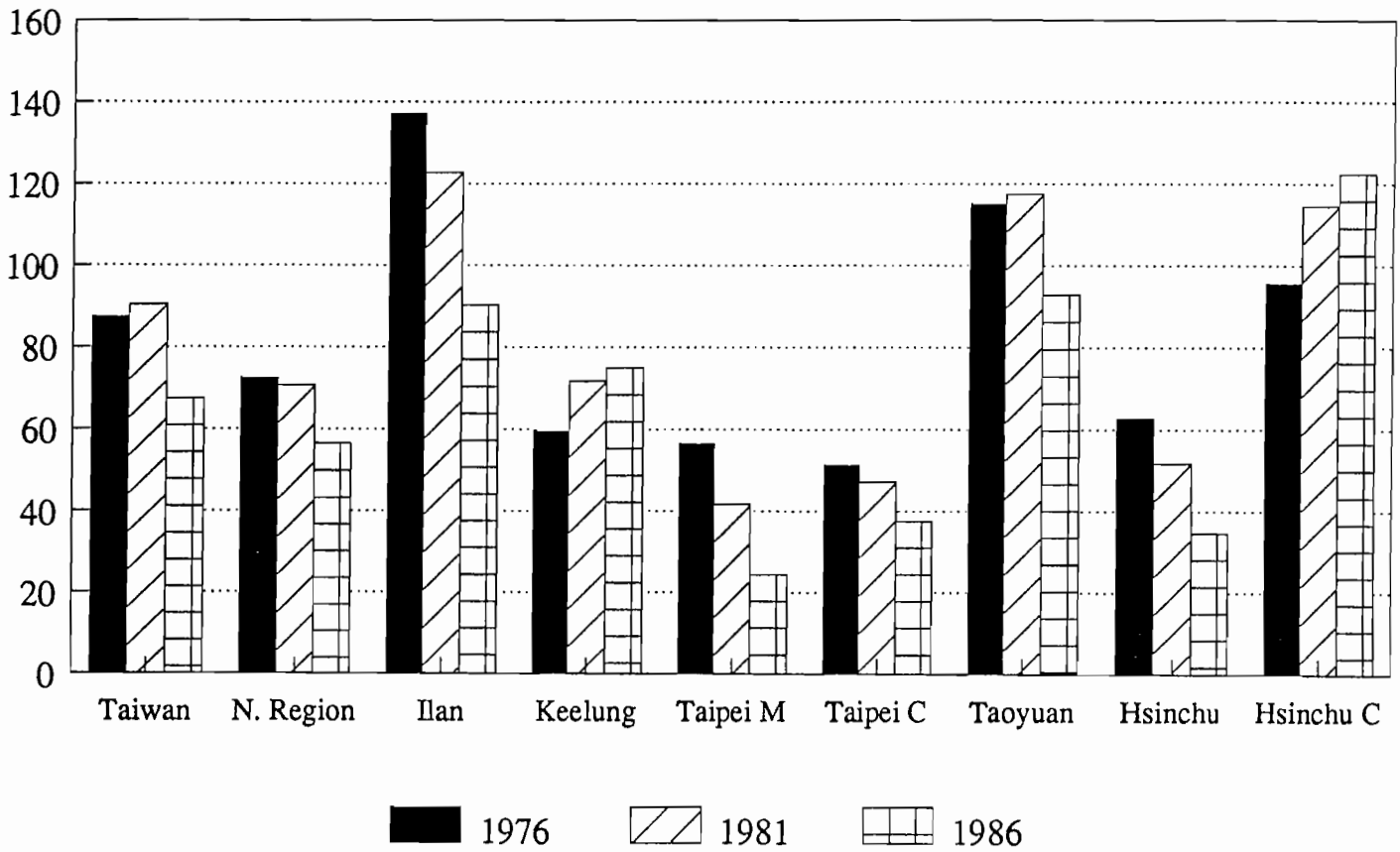
What can be learned about the distinctive features of export-oriented urbanism? Taipei has exhibited some of the features indicated in the hypotheses, though it does not seem to fulfill them in all respects.

Employment Structure

The Taipei Metropolitan Area has certainly experienced rapid decline in primary-sector employment, and a rapid rise in the number of those employed in the manufacturing sector. Indeed, the TMA has 40 percent of its employment in the manufacturing sector (Table 12-7). Within Taipei

Figure 12-4

Industrial Land per Manufacturing Worker in the Taiwan Metropolitan Area



Municipality, however, manufacturing employment, though representing about 20 percent of the total employment, was never completely dominant. Furthermore, manufacturing employment has, since the mid-1970s, begun to decentralize towards the suburban areas and counties.

One of the explanations for the lack of dominance by the manufacturing sector in Taipei Municipality itself is that it is also the capital city and the dominant commerce center. Hence, it would have a diversified employment structure. The TMA, on the other hand, more representative of the economic field of which Taipei Municipality is the center, is dominated by manufacturing and is likely to continue to experience this concentration in the foreseeable future. In Taipei Municipality, commerce, transportation, and finance and banking together accounted for just over 60 percent of the total employment, indicating the dominance of the service sector— a characteristic it shares with other major cities in the NICs.

In 1989 and 1990, the conventional wisdom in Taiwan is that there is an acute shortage of labor. It is, however, very difficult to assess the real situation, as any casual observation on the streets of Taiwan would indicate that the informal sector is alive and well. Many individuals are not absorbed by the formal sector, are opting not to be working in the formal sector, or find it necessary to supplement their income by engaging in informal sector activities. The low unemployment rate reflects the statistics of the formal sector. Without detailed specific studies, it is difficult to refute the official statistics.

Increasing Primacy

Although in terms of the population size distribution, Taipei Municipality is not considered a primary city, the Taipei Metropolitan Area is the major population center of Taiwan and the location of its financial center, its tertiary education, and other major functions.

In the case of Taipei, it is the dominant center of the country, but it could be expected that other export-oriented centers would increase their dominance in their regional settings.

Net in-migration from the rural areas and small towns is the chief contributor to the growth of not only Taipei Municipality, but for most of the Metropolitan area. The expectation is that the TMA will continue to experience positive net in-migration, ensuring its position as the largest conurbation in Taiwan by the year 2001. As long as the spatial distribution of economic opportunities continues to center around the TMA, net in-migration can be expected to persist.

Conversion of rural land in the urban fringe to urban uses in the Taipei context is largely the result of two processes. The first is the outward expansion of suburbia, which is experiencing speedy growth in population and density. The second is the process of rapid urbanization of the counties and smaller towns in the Metropolitan area through spectacular industrialization. The metropolitanized region is being extended from Taipei south-westward. This process is still in progress and likely to continue.

Income Convergence

A notable development features of Taiwan during the 1970s was the relative income equality which it achieved — a feat often touted as an example of the success of export-oriented industrialization under capitalism (Adelman and Morris, 1973). This changed rapidly during the 1980s. Instead of the famous inverted-U curve, as hypothesized by Williamson (1965), what can be observed is indeed a swift rise of inequality during the early stages of development and then the level of inequality fell quickly, supporting Williamson's hypothesis (Chang, 1984).

Income distribution in Taiwan, as measured by the ratio of the personal income received by the highest-fifth households to the lowest-fifth, has risen sharply from a ratio of 4.2 in 1980 to 4.6 in 1986, after a decade of decline from a ratio of 5.4 during the 1970s (Figure 12-5). While the data pertain to the whole of Taiwan and similar data is not available for Taipei, it could be reasonably assumed that the distribution in Taipei would be even more sharply divided. Although Taiwan achieved a significant narrowing of the income gap during the rapid-growth period of the 1970s, in the 1980s (when its economic success seemed very much assured) the distribution aspects of its growth is no longer as equal as previously reported. Widening income distribution is one of the social issues which will no doubt become more contentious as economic restructuring proceeds apace.

However, the level of inequality, as measured by the distribution of personal income by households, is again rising rapidly, signifying a new phase more akin to the world city hypothesis of Friedmann and Wulff (1982).

Williamson's hypothesis has always attracted controversy, and supporters often use the example of the NICs as vindication of his prognostication. Even if it were granted that his hypothesis could well be correct, as applied to economies undergoing industrialization, it does not seem appropriate for economies which become more and more intertwined with the new international financial system. This and related questions are subjects of further research.

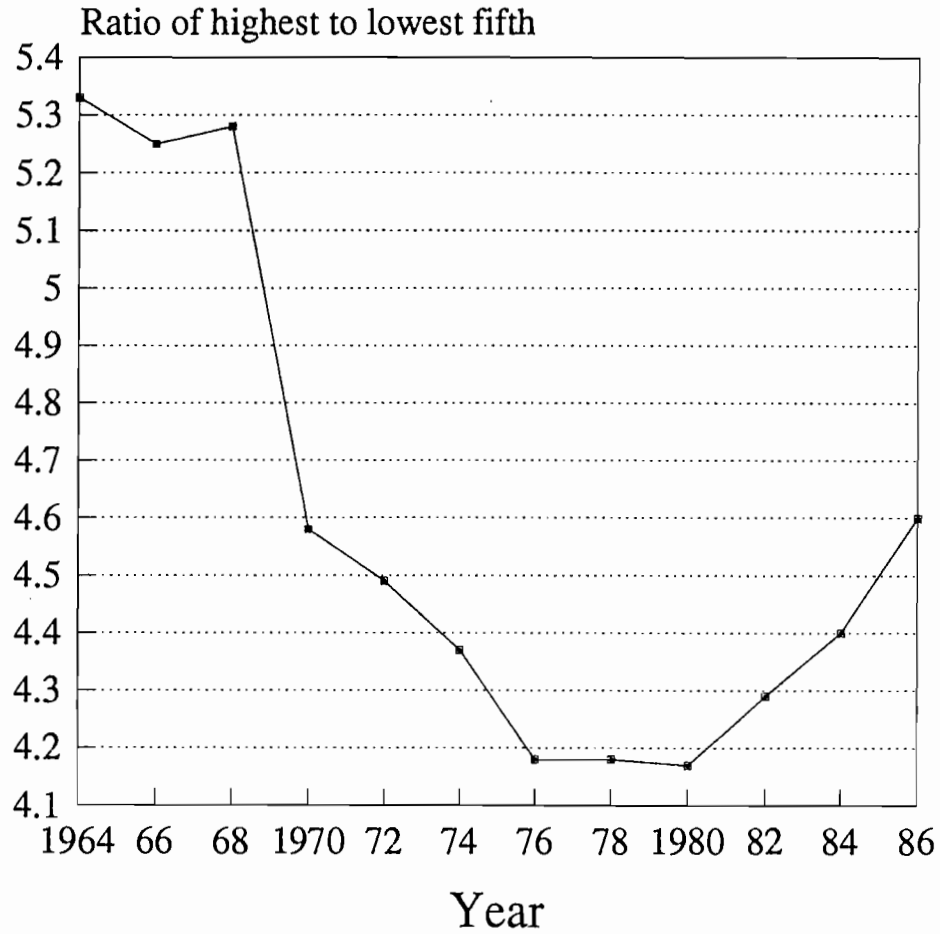
While the available data pertains only to Taiwan as a whole, the likelihood is that the distribution within Taipei is even more sharply divided, and that the rural urban differences are also increasing during the 1980s — an issue which awaits further study.

Urban Infrastructure and Pollution Control

There is now widespread recognition that the wealth-creating industrialization of Taiwan has not done very much for the quality of urban life, partly due to the neglect of provisions for urban amenities and infrastructures. The all-too-visible consequences of such neglect can no longer be ignored, and public-sector programs totalling over US\$40 billion are either underway or in the planning stage (Chien, 1990). Most of the investments are related to transportation and provision of sewage systems, as well as projects related to cleaning up water pollution. The

Figure 12-5

Distribution of Personal Income by Households in Taiwan, 1966-88



bottlenecks appear to be the capacity of the construction industry to cope with the number and size of projects, all starting within a relatively short period.

GLOBAL INTEGRATION: THE WAY AHEAD

Taipei exhibits many of the features of export-oriented urbanism hypothesized in this paper, but it does not conform to all of them. This is possibly due to the fact that Taipei, and more generally Taiwan, has already entered into a new transformation that has profound impacts on the type of urbanism which is evolving. Investments from abroad were largely concentrated in a few centers in Taiwan, in particular around Taipei. The expansions in the 1970s and most of the 1980s reinforced the dominance of the TMA and, at the same time, spurred the outward expansion of urban activities within the Northern Region. The changes in the structure of employment in these three spatial units are the results of this process. As the development of Taiwan becomes less reliant on foreign investment, the pace of change, the structural features, and the spatial impacts of the changes are likely to be quite different.

The growth of export-oriented industries demanded that Taiwan be integrated into the global trade and capital flows. In the process of rapid export-oriented industrialization, Taiwan was a net recipient of capital from the industrialized nations and was able to develop their markets at the same time. Capital investments from the industrialized countries did not necessarily mean that most imports originate from the same countries. Indeed, as the Taiwan economy shifts from one being competitive, largely on the basis of labor-intensive industries and an export platform for foreign enterprises, to one based on technology-intensive industries funded largely from domestic capital, it is moving towards the role of an exporter of capital. At the same time, Taiwan is seeking to transform its economic and political relationships with the rest of the world. Capital investments continue to come from the more industrialized nations of North America and Europe, while the imports are shifting more to the Asian nations, in particular Japan.

During the late 1980s, the Taiwan government liberalized currency regulations and banking laws, partly to facilitate the outward expansion of Taiwan's manufacturers. Investors from Taiwan have sought to expand their investment abroad with a two-pronged strategy. First, investment flowed to Southeast Asia, in order to retain pecuniary interest in labor-intensive manufacturing. Second, a simultaneous move occurred towards investing in the more technology-intensive industries and in the service sector in the industrialized nations, notably in North America. This process of economic restructuring has divergent impacts on the various regions of Taiwan: positive towards some and less positive towards others.

The parts of the TMA most reliant on the labor-intensive E&E activities, and other labor-intensive manufacturing activities, are the ones most likely to experience the impacts of restructuring. Unlike the industrialized nations, Taiwan will not have "rust belts," but it will have silent

workshops and factories concentrated in a few regions more than in others, unless the restructuring process can provide employment and retraining tailored to the needs of the workers in those regions. In the past, these regions have prospered, largely due to the strength of the overall economic growth based on labor-intensive activities; but the ebb and flow of the restructuring process are now against the counties and towns most reliant on such activities. A successful transformation towards technology-intensive activities will not necessarily provide employment on the same scale as before. The prospects for these regions with enclaves of labor-intensive industries are not sanguine.

Taipei will most likely develop towards becoming a center more reliant on its banking, finance, and service sectors, and on the technology-intensive industries. Will the process of transformation lead to greater income inequality? Will this process continue to stimulate migration towards the Northern Region and the urban core? Are the planned urban infrastructural investments able to cope with the increasing demands of Taipei, as an international city of finance and banking? These changes in the economic structure of Taipei and the social, political transformations integral to that process will ensure a form of urbanism that will be distinct from the one which has developed through the 1970s and 1980s.

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CHAPTER 13

HONG KONG: A CITY OF PERPETUAL CHANGE

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INTRODUCTION

Being a city characterized by its full support of a free market economy, Hong Kong has grown from a regional entrepot trade center to a global city. Notwithstanding the fact that the return of sovereignty back to China in 1997 has drawn much attention and concern in recent years, the unification also provides Hong Kong with better development opportunities to integrate fully with South China in the next century. The purpose of this chapter is twofold. First, it examines the various factors influencing the urban economy in its process of structural transformation. Second, it provides an assessment of the future of Hong Kong as a Special Administrative Region of China.

THE GROWTH OF A GLOBAL CITY

The territory of Hong Kong, which is 1,015 square kilometers in size, consists of three parts: Hong Kong Island; Kowloon Peninsula; and the New Territories, which includes all the outer islands (Figure 13-1). Each part was acquired by the British from the Qing Government during the last century, but at different stages under different conditions. The territory was acquired as a bridgehead of British economic expansion into China, in particular, and the Far East in general.

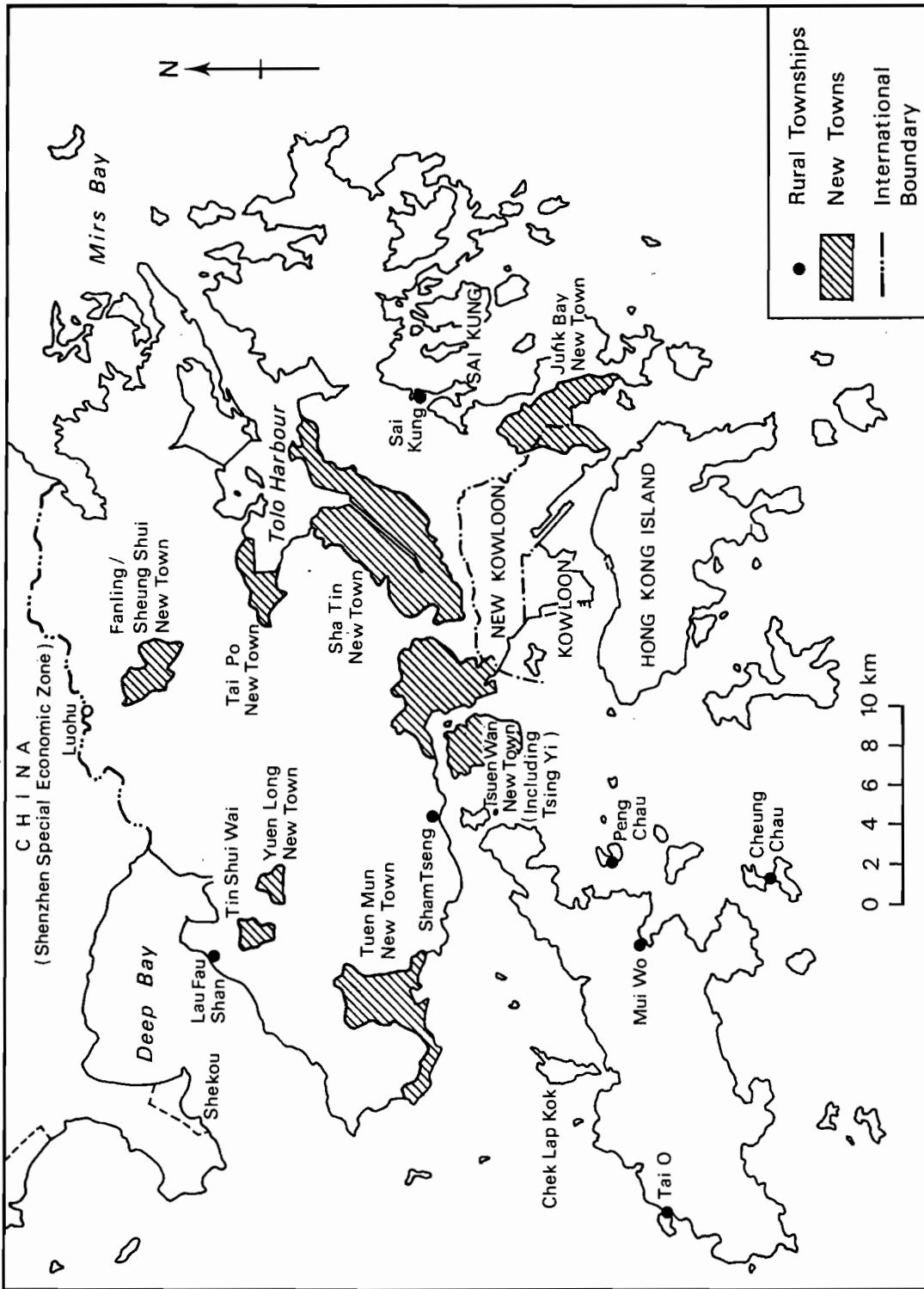
Free Port Strategy

By adopting a free-port strategy, the territory was gradually turned into an entrepot trade center, serving as a collecting and distributing point for China, and to a lesser extent Southeast Asia. The city was forced to turn to industrial and manufacturing investment as alternative developments, due to the trade embargo against China during the Korean War. Most of the small industries have been export-oriented since the beginning, exploiting the advantage of business connections established earlier through entrepot trading. By 1959, export of domestic manufactured goods exceeded re-export trade in value terms.

In addition, China adopted an open door policy in 1979, and since then it has achieved very impressive economic outputs and growth. With the support of a booming manufacturing sector in Hong Kong and South China, re-export trade, and a government policy of least interven

Figure 13-1

Location of New Towns



tion and minimum control, activities in the service industry, particularly in banking and financial services began to emerge as an important sector of the economy. In the period 1961-81, with an annual growth rate of its Gross Domestic Products (GDP) at current prices of 10 percent, the economic performance of Hong Kong was indeed impressive. In 1990, with a per capita GDP of over US\$12,000, it ranked second in Asia, after Japan. The structure of the economy has now become acceptably diversified, and it has integrated spatially and sectorally with the rest of the Pearl River Delta, in particular, and the world market in general. Today these three major activities— export trade, manufacturing, and banking and finance —serve as solid links between Hong Kong and the world economic system. Hong Kong, now the world's eleventh largest trading entity, is a global metropolis of 5.8 million people.

Population Growth, Migration, and Labor Force

About 40 percent of the residents in Hong Kong were at one time migrants, mainly from China. The annual average growth rate of population therefore is affected by the scale of in-migration flow. The rate averaged 1.3 percent over the last ten-year period. As the society becomes more and more affluent, with an increasing female labor force participation rate, and the political future less certain to many, the fertility rate has dropped steadily, from 5.0 in 1961 to 1.9 in 1981 and 1.19 in 1990. This gives Hong Kong one of the lowest fertility rates for a population of equal size in the world. On the other hand, it was felt necessary to keep the population increase at a measurable level, in view of the tight supply of housing and other relevant social amenities. The city, in fact, has been adopting a rather strict immigration control policy. This, however, does not deter eager migrants, legal or otherwise, from China.

With 1997 approaching, Hong Kong is also experiencing a steady outflow of people, mainly to North America and Australia. Many who left were from middle-income families and professionals, causing some concern in business. An estimated 62,000 persons emigrated in 1990, and this trend may continue for some time into the future. The rate of increase may be checked occasionally by economic recession at the receiving countries. Table 13-1 shows the out-migration from Hong Kong since the 1970s, and Table 13-2 indicates foreign passport holders in Hong Kong since 1982. It is noted here that some of the Canadian, Australian, and United States passport holders, for example, are in fact previous Hong Kong residents who had acquired a foreign passport. An estimate of about 10 percent of those who left have returned (Skeldon, 1991). The process of out-migration may to some extent hinder the efficiency of the society. Its impacts should not be overestimated, as a city of such a size and level of affluence is normally capable of replenishment by itself. Further, these migrants do enhance the international links between Hong Kong and overseas in terms of trade, communications, and even cultural exchange.

Table 13-1
Immigrants to Major Destinations From Hong Kong,
1970-1990

<u>Year</u>	<u>Australia</u>	<u>Canada</u>	<u>United States</u>	<u>Total Emigrants</u>
1970	-	4,509	9,270	
1971	-	5,009	7,960	
1972	715	6,297	10,916	
1973	734	14,661	10,300	
1974	1,130	12,704	10,700	
1975	1,593	11,132	12,547	
1976	1,302	10,725	16,950*	
1977	1,633	6,371	12,272	
1978	2,313	4,740	11,145	
1979	1,836	5,966	16,838	
1980	2,822	6,309	-	22,400
1981	1,960	6,451	-	18,300
1982	2,414	6,542	11,908	20,300
1983	2,756	6,710	12,525	19,800
1984	3,691	7,696	12,290	22,400
1985	5,136	7,380	10,975	22,300
1986	4,912	5,693	9,930	19,000
1987	5,140	16,170	8,785	30,000
1988	7,942	23,281	11,817	45,800
1989	9,998	19,994	12,236	62,000
1990	11,538	28,825	-	60,000**

Notes:

* Includes transition June-September in realigned year.

** Provisional figure.

1 Australia: Settler arrivals for the financial year 1 July to 30 June.

2 Canada: Landed immigrants in calendar year.

3 United States: Immigrants admitted in fiscal year, 1 July to 30 June from 1970 to 1975 and from 1 October to 30 September from 1977 to 1989. The 1989 figure excludes the intake under the Immigration Reform and Control Act (IRCA) which allowed people who had been resident unlawfully since 1 January 1982 to become residents during 1989.

Source: Skeldon (1991).

Table 13-2**Foreign Passport Holders in Hong Kong as of 31 December Each Year,
1982-1990**

<u>Origin</u>	<u>1982</u>	<u>1985</u>	<u>1990</u>
Total	149,000	162,000	227,600
United Kingdom	21,900	14,800	16,400
Philippines	20,000	32,000	61,160
India	14,400	15,200	17,040
United States	12,400	15,100	19,250
Malaysia	9,000	9,700	11,700
Thailand	8,900	9,600	14,300
Australia	7,900	8,000	12,020
Portugal	7,400	7,700	8,870
Pakistan	7,300	-	-
Japan	7,100	7,400	10,600
China	-	7,100	13,000
Total*	149,000	162,000	227,600

Note:

* The figure excludes countries not shown above.

Source: Unpublished tabulations, Immigration Department, Hong Kong Government, and Skeldon (1991).

It is relevant to note here that as far as human resources management is concerned, Hong Kong has been keeping a low unemployment rate of around 3.5 percent, a level considered as full employment by the Hong Kong Government. Serious unemployment has never been a problem in Hong Kong, despite the periodic massive influx of Mainland refugees. The ability of the production system to absorb excess labor force, even without government assistance, is indeed an important factor of economic growth of the city. Hong Kong is famous for its medium and small-scale industry, in which the common practice of subcontracting allows production to take place in household workshops and other small-scale units. This subcontracting practice encourages the full participation of all labor available. It helps to utilize housewives and students using residential premises at times of labor shortage. The system also ensures the reduction of labor cost at times of abundant labor supply.

In fact, as a result of rapid economic growth and the structural transformation of the production system in recent years, certain sectors of the economy, particularly in construction and the service industry, are faced with serious labor shortage. The government is under pressure from the private sector to import foreign workers to ease the situation, although the proposal has also met with strong objection from the local labor organizations. Filipino domestic helpers, about 60,000 in number, form the largest group of foreign workers. The employment of these helpers allows many local females to join the labor market.

The labor market in the past was cushioned by extensive in-migration from China, many as refugees or illegal migrants. The sufficient supply of laborers from China allowed Hong Kong to offer a comparatively low wage rate, and this was one of the major factors in making Hong Kong products competitive in the international market. The abolition of the lenient immigration control policy in recent years partially led to an increase of wage rates, and to the subsequent inflation, a problem to be discussed in due course.

BASIS OF HONG KONG'S INTERNATIONAL ECONOMY

The viable economy of this city is supported by a combination of manufacturing, finance and banking, re-export trade, property and construction, and other services. Although these activities emerged under different circumstances and contribute differently to the economy, they are interdependent with one another. The healthy economic performance of Hong Kong is attributed to several conducive factors, including the ability to absorb excess labor supply into productive use, as indicated above; the high saving ratio; and the favorable returns to saving, among others. The Hong Kong Government insists in the practice of a least-intervention and low-tax policy. This inevitably encourages productivity of and returns to capital investment. Uncertainties of the future, on the other hand, induce more savings. The discussion below is a summary of the three major sectors (manufacturing, banking and finance, and re-export) of the economy, with activities in the property and construction sector to be discussed later.

Manufacturing

With the transformation of Hong Kong into a world financial and trading center, the percentage distribution of manufacturing to GDP has been on the decline over the years. At its height in the early 1970s, the manufacturing sector contributed to 30 percent of the GDP, with an employment of over one million workers, or 46 percent of the total work force. By 1990, contributions to the GDP had declined to about 18 percent, and employed 0.8 million people, or less than one-third of the total work force. Nevertheless, manufacturing activities remain the backbone of the economy today. The contracting in manufacturing employment allows a labor shift from the sector to the service industry, thus speeding up the process of the structural transformation of the economy, maintaining a full employment with signs of a serious labor shortage.

Hong Kong's manufacturing sector is supported by a large number of medium and small establishments interlocking in a well-structured subcontracting system. The sector has been relying heavily since the beginning on export, revealing a very significant difference from the other three 'small dragons' in Asia (Singapore, Taiwan, and South Korea). These countries all had an emphasis on import-substitution during their early stages of industrialization.

Trade embargoes against China, imposed by the United States and the United Nations during the Korean War, seriously affected the entrepot trade of Hong Kong. However, the city fast made use of the abundant labor supply, know-how, equipment, and capital, which were moved out from Shanghai and Guangdong after the establishment of the People's Republic of China. This early establishment of textile manufacturing replaced China as the supplier of textiles to the United States. Since 1975, diversification of manufacturing activities has occurred, with electronics, toys, and clocks and watches as major outputs. Nevertheless, the basic characteristic of serving as a processing center remains, with imported immediate goods.

Due to many factors, including political uncertainties, the lack of a positive government policy, and the need to make quick adjustment of the production lines in order to meet overseas demand, the manufacturing sector in Hong Kong is notoriously weak in research and development. It also does not favor long-term capital investment. The situation is further worsened by the ever-changing tastes of the overseas consumers of Hong Kong products. Firms are forced to be locked in as suppliers of overseas markets, thus further depriving Hong Kong of the opportunities in promoting its own research and development facilities. Ostensibly, it is argued that this shortcoming can be eliminated or substantially reduced by the backup of research and development carried out in China, because of its proximity and the active investment of Hong Kong capital in manufacturing establishments across the border on the one hand, and the efficient telecommunications systems on the other. In spite of the fact that Hong Kong's manufacturing activities are now being structurally integrated with the production system in the Pearl River Delta, this lack of research and develop-

ment tradition, and the heavy reliance on others for technical knowhow, obviously has serious implications for its long-term development.

With keen competition from other Southeast Asian countries, as well as South Korea and Taiwan, in the last two decades — particularly in the production of garments, toys, plastics, and watches, formerly the major export items of the territory— Hong Kong was once again forced to diversify and to shift to high-valued-added products. The process was made possible with the relocation of many intensive industries to China, as a result of the country's open door policy.

China's open door policy, geographic proximity to the giant neighbor, and keen competition for space and labor from other sectors have together posed both an inducement and a threat to many manufacturing establishments in Hong Kong. Processing lines with Hong Kong involvement began to appear across the border, particularly after the adoption of an open door policy in China, with some supporting the Hong Kong plants in increasing production, and others as a total relocation. It is estimated that factories with Hong Kong involvement employ over two million workers in the Pearl River Delta region. In addition, about 5,000 Hong Kong residents work in these factories, many as skilled and management personnel. Factory relocation reduces the GDP and employment shares of manufacturing, but it does not imply any total loss of the territory's manufacturing and trading advantage. In fact, by factory relocation, the spheres of business and production influences have successfully pushed beyond the political boundary of the city-state. The encroachment of Shenzhen and the Pearl River Delta as both its production site and market has inevitably installed the metropolitan position of Hong Kong in this fast changing urban-regional system. With the return of Hong Kong to China in 1997, the boundary between the territory and Shenzhen— the Development Zone in China —will remain only as a political or administrative reminder, with very limited implications to economic exchange and less so to manufacturing interdependency. It is, therefore, not unrealistic to claim that the existence of Shenzhen has helped speed up the process of the structural transformation of the city-state, without which its future will be very disturbingly unclear.

In spite of the drastic locational and structural changes in manufacturing, the sector has received limited direct physical support from the government under a policy emphasizing free competition (Sit, 1989). Assistance is limited to favorable taxation under the argument of minimum government intervention, plus, perhaps, vocational training of the potential labor force, and marketing promotion through the active offices of the Trade Development Council in major cities around the world. This misfortune, in fact, is a blessing in disguise to the manufacturing sector. Keen competition encourages an upward self-adjustment of productivity, flexibility, and adaptability in the many small manufacturing firms, in particular, and the economy in general. As a result, the city can become adaptive in molding itself into various dynamic forms under complex and difficult circumstances in order to sustain its prominence and equilibrium. Over the years, protectionism and changing comparative advantage have, directly or otherwise, forced the labor-intensive manufac-

turing sector to diversify and shift into more skill-intensive processes of production and high-value-added upmarket outputs to cater to international clientele. The products, however, remain consumer-oriented in nature. As a result of diversification and capital intensification, there occurs an increase in labor productivity and real wages. Those activities with a less efficient use of labor and other factors of production are either being phased out or relocated across the border to exploit the inexpensive labor market there (Sit, 1986).

The strong tie between manufacturing and export in Hong Kong exposes the city to drastic world market conditions. Most of Hong Kong's industrial outputs and finished products are for export purposes, leaving itself with limited intermediate production activities. Domestic production is decided by a direct world market. A small shift in demand of the latter could therefore generate enough shock waves to cause major disturbances and difficulties to the former. A city-state with insufficient domestic inter-industrial linkages and support is bound to expose itself to uncontrollable external influences. By expanding horizontally its production base across the border does not help in strengthening its bargaining power with overseas buyers in times of difficulty. Circumstances have been such that no encouragement of vertical integration in manufacturing has been available. Unfortunately, the trend will extend into the future, unless a drastic reorientation of its production philosophy is introduced.

Financial and Banking Services

Hong Kong is now the major international banking and financial center in Asia, second only to Tokyo. There has been an increase in the representation of the world's largest banks in Hong Kong. For example, in 1989, 45 of the top 50 banks in the world maintained a full-fledged licensed bank in Hong Kong, together with many other institutions of world standing, as shown in Table 13-3. The share of foreign currency deposits in total deposits in the Hong Kong banking system exceeded 62 percent in 1990. Through the syndication of loans, international fund management, and investment, Hong Kong has emerged as a regional metropolis by extending its services throughout the Asia-Pacific region and beyond. It also serves as the gate to investment in China. In fact, the sector's aggregate assets and liabilities are spreading in more than 100 countries (Table 13-4).

Several factors are behind this success. The favorable geographical position of Hong Kong provides an ideal bridge in the time gap between Europe and North America. The excellent domestic and international communications facilities, strong economic links with China, Japan, and South-east Asian countries, also enhance the position of the city. In addition, the absence of any restrictions on capital flows in and out of the territory, the practice of an established legal system, and a relatively stable investment environment supported by a productive work force also contribute, in one way or another, to Hong Kong's success as an international financial center. The well-

Table 13-3

The Presence of the World's 500 Largest Banks in Hong Kong,
1986 and 1990

World Ranking*	Licensed Overseas Banks in Hong Kong		Licensed Deposit- taking Companies Owned by Overseas Banks**		Registered Deposit- taking Companies Owned by Overseas Banks**		Local Representative Offices	
	1986	1990	1986	1990	1986	1990	1986	1990
	1- 20	19	19	6	9	19	14	0
21- 50	27	26	3	3	22	17	2	1
51-100	27	32	5	4	24	20	10	7
101-200	14	29	3	2	13	24	29	27
201-500	13	20	4	6	24	24	36	48
Others	16	13	2	9	33	30	67	72
Total	116	138	23	33	135	129	144	155

Notes:

* Top 500 banks/banking groups in the world ranked by total assets less contra items.

** Figures in this column represent the number of deposit-taking companies which are branches or subsidiaries of overseas banks, classified in accordance with the world ranking of these overseas banks.

Sources: *The Banker*, July 1986 and 1989 issues; and Ho, *et al.*, 1991.

Table 13-4

Net Claims of the Hong Kong Financial System *vis-à-vis* Other Countries
(at Current US\$ Million)

<u>Country/Region</u>	<u>1980</u>	<u>1990</u>
Asia Pacific	5,101	70,806
Australia	183	4,851
Bangladesh	6	44
Brunei	0	0.6
Burma	21	1
China*	1,297	547
Taiwan	1,167	2,641
Fiji	4	- 4
French Polynesia	0	- 2
India	102	1,988
Indonesia	831	2,173
Japan	187	51,152
Kampuchea	0	- 0.9
Macau	- 464	- 624
Malaysia	295	641
Nepal	12	- 47
New Zealand	276	3,152
North Korea	62	66
Pakistan	9	69
Papua New Guinea	31	57
Philippines	1,722	681
Singapore	- 4,686	- 1,689
South Korea	2,307	5,603
Sri Lanka	6	8
Thailand	670	3,109
Vanuatu	1,180	- 3,402
Vietnam	57	- 75
Others	- 171	- 139
Africa	1,929	2,143
North America	- 243	3,336
Latin America	805	391
Caribbean	- 261	6,596
Middle East	- 805	- 2,229
Western Europe	- 5,009	- 20,531
Eastern Europe	283	147
Others**	0	410
Total	1,924	61,142

Notes:

* Excluding figures from Taiwan.

** Including International Organizations and unallocated.

Sources: Census and Statistics Department, *Hong Kong Monthly Digest of Statistics*, relevant issues.

established banking and financial activities provide not only full support to manufacturing, but also the export and re-export trade.

Perhaps as a result of geographic proximity and the emerging economies in the region, there have been active Southeast Asian capital investments in the financial market in recent years, particularly from Singapore, Indonesia, Thailand, Malaysia, and the Philippines, in that order. The major industrial and trading partners of Hong Kong, i.e. Japan, the United States, South Korea, Taiwan, and Australia, have drawn heavily from the city's capital market. As shown in Table 13-4, Hong Kong's capital is also actively engaged in the Caribbean and Africa, reflecting the scope of the involvement of Hong Kong at the international level. Other than net claims from most countries, Hong Kong serves as a debtor to Western Europe, the Middle East, Singapore, and Vanuatu. China's economy is closely linked to Hong Kong, but the figure in 1990 was a drastic drop from that in, say, 1988, as a result of social disturbance in the country in 1989. China drew US\$5.2 billion from Hong Kong's capital market in 1988, making it the second largest debtor to Hong Kong in Asia, next only to Japan in that year. Based on this active transaction performance, it is envisaged that the position of Hong Kong as a center of banking and financial services will remain unchallenged as long as the economy is healthy.

Re-Export

Hong Kong was colonized for the purpose of turning it into a bridgehead for British economic encroachment into the vast market of Southern China and beyond. Supported by a deep-water harbor and the efficiency of the British trading influence, merchants of all nationalities were attracted to Hong Kong. The city has since served as the entrepot trade center, as well as the 'door' of and to China, with increasing importance, especially since 1979. China and the United States today import half of the output of Hong Kong's domestic export (Table 13-5). In addition to domestic export, re-export is now playing an important role in Hong Kong's international trade. The proportion of re-exports to total exports has been increasing over the years, ranging from 24.7 percent in 1973 to 44.8 percent in 1985, and 64.7 percent in 1990. In real terms, Hong Kong's total export amounted to US\$82 billion in 1990, with US\$53 billion from re-export. Today, China serves as the largest source of Hong Kong's re-export goods and as destination of more than one-quarter of the city's total re-export (Table 13-6). The other major trading partners include the United States, Japan, and Taiwan.

The increase of re-export from China was partly a result of the relocation of Hong Kong factories across the border, and partly a result of the increasing reliance of China on Hong Kong for international transactions. To date, China has yet to possess efficient port facilities to handle huge amounts of cargo, thus fostering the strong dependency on Hong Kong. Massive port development programs are being implemented across the border. This therefore will reduce gradually, but

Table 13-5

**Domestic Exports by Major Importing Economies,
1980-1990 (at Current US\$ Billion)**

<u>Destination</u>	<u>1980</u>		<u>1990</u>	
United States	2.90	(33.1)**	8.51	(29.4)
China*	0.21	(2.4)	6.09	(21.0)
Taiwan	0.11	(1.2)	0.73	(2.5)
Germany	0.95#	(10.8)	2.31	(8.0)
United Kingdom	0.87	(10.0)	1.73	(6.0)
Japan	0.30	(3.4)	1.55	(5.3)
Singapore	0.23	(2.6)	1.00	(3.5)
Canada	0.23	(2.6)	0.69	(2.4)
Netherlands	0.20	(2.3)	0.64	(2.2)
France	0.18	(2.1)	0.47	(1.6)
Rest of the World	2.57	(29.5)	5.26	(18.2)

Notes:

* Figure does not include Taiwan.

** Figures in parentheses are percentage shares of the corresponding total domestic exports.

The 1980 entry for Germany refers to the trade with West Germany only.

Sources: Census and Statistics Department, *Hong Kong Review of Overseas Trade*, relevant issues.

Table 13-6
Origin and Destination of Re-Exports,
1980 and 1990 (at Current US\$ Billion)

<u>O/D</u>	<u>As Origin</u>		<u>As Destination</u>	
	<u>1980</u>	<u>1990</u>	<u>1980</u>	<u>1990</u>
China*	1.08 (27.9)#	30.82 (58.1)	0.59 (15.4)	14.22 (26.8)
Taiwan	0.27 (7.1)	3.88 (7.3)	0.29 (7.4)	2.72 (5.1)
Japan	0.75 (19.6)	5.42 (10.2)	0.28 (7.3)	3.13 (5.9)
United States	0.41 (10.5)	3.14 (5.9)	0.40 (10.3)	11.25 (21.2)
South Korea	0.11 (2.9)	1.49 (2.8)	0.12 (3.0)	1.67 (3.1)
W. Germany	0.06 (1.6)	0.71 (1.3)	0.08 (2.2)	3.00 (5.7)
Singapore	0.04 (0.9)	0.60 (1.1)	0.32 (2.4)	1.61 (3.0)
Switzerland	0.11 (2.8)	0.60 (1.1)	0.08 (2.2)	0.44 (0.8)
United Kingdom	0.06 (1.6)	0.60 (1.1)	0.11 (2.7)	1.55 (2.9)
Others	0.97 (25.1)	5.79 (11.1)	1.60 (41.1)	13.47 (25.5)
Total	3.86	53.05	3.86	53.05

Notes:

* Excluding figures from Taiwan.

Figures in parentheses are percentage shares of the corresponding total re-export trade.

Sources: Census and Statistics Department, *Hong Kong Review of Overseas Trade*, relevant issues.

substantially, the hinterland of the Hong Kong port. But the commanding position of Hong Kong, as well as its middleman's business, will continue to prosper, at least until the turn of the century or beyond, unless drastic restrictions were to be imposed on to such a flow. China needs time to develop its port and other export-related infrastructures. The unique position of Hong Kong, together with its established standard of services, has attracted numerous state and local enterprises in China to set up branches and subsidiaries in Hong Kong for trading purposes, including re-importing a considerable amount of Hong Kong's re-exports originated from China (Mok 1990). With marketing facilities generally handled by their Hong Kong office, as well as the full banking support extended, firms with investment in China may continue to prefer shipping their processed products through Hong Kong water in order to ensure reliability and efficiency, as well as market confidentiality.

The long-term prospect of Hong Kong as a re-export center will depend very much on the one hand on the success of China in developing its own direct international trade linkages, and on the other hand with the level of spatial integration of Hong Kong with the rest of the Pearl River Delta, especially after the reunification of the territory with China. Either way, there appears a need to redesign the development strategy of the city-state with a maximum level of built-in flexibility in order to withstand potential disorientation. The proposed level of port facilities as spelled out in the Port and Airport Development Strategy (PADS) Study, for example, deserves very careful re-examination.

BASIC URBAN PLANNING STRATEGIES

Notwithstanding the fact that the territory stretches over a relatively large area, most of the people and activities in Hong Kong have been concentrated along both sides of Victoria Harbor; i.e., on Kowloon Peninsula and the north shore of Hong Kong Island. This gives rise to a very crowded urban environment, leaving the New Territories basically untouched until the introduction of public-led new town development programs there in the 1970s (Wang and Yeh, 1987).

Concentrated Development

The concentration of people and facilities on the narrow strips of lowland along Victoria Harbor was, in fact, the result of a deliberate urban development policy dating back to the early years of colonization. The policy had certain merits in urban design. It encouraged the sharing of public facilities in a defined urban area, thus reducing the total cost of production and management. It created the image of a well-established and booming urban center, essential to attracting foreign investment, international trade, and the position of Hong Kong as a financial center. By locating most of the activities away from the Chinese border, an impression was created that efforts were made by the Hong Kong Government to avoid potential conflicts with China. Superficial as this

might sound, the psychological impacts of this carefully chosen gesture were not without far-reaching effects. Stability has been the fundamental asset of Hong Kong in the eyes of many who either fled China to settle in the city or invested in the territory. Creating a haven away from the border provided its residents, as well as investors, the needed mental assurance, at least for the time being.

Economic and psychological factors aside, the adoption of this strategy was also partially a result of the indigenous rights of the rural residents of the New Territories to protect themselves from urban encroachment, as spelled out in the treaties with the Qing Government. Farming lands in the New Territories were not supposed to be converted into urban use by acquisition without proper compensations, rezoning, and the support of the representative body of the rural residents (the Heung Yee Kuk). Disputes with the 'kuk' were many over the years (Miners, 1981), even after the introduction of the massive new town and public housing development programs in the 1970s. The latest argument in 1990, which led to the amendment of the *Town Planning Ordinance*, was whether the use of abandoned agricultural land for industrial storage space should be subject to land use control. This in-built political reality and the purposeful avoidance of the Chinese border did not encourage planners in the past to look beyond the mountains encircling the harbor. The legacy lingers even in the latest development programs, including the *Metroplan* and the PADS Study, which are discussed later.

Though this policy of concentrated development has resulted in many urban problems in Hong Kong in the later years, such as over-crowdedness and pollution, the strategy allowed the establishment of a strong and visible urban center with a dynamic image of vitality, through active land use intensification and succession. This process provides the basis for the gradual transformation of the trading port into a leading manufacturing and financial center.

Public Housing and New Town Development

The vital and dynamic image of the city attracts not only investment, but also in-migration. The continuous influx of refugees from China, for example, has inevitably provided the city with a serious challenge in the provision of housing and other social amenities. This is especially so when taking into consideration the highly over-crowded urban landscape, which resulted from the deliberate urban policy of concentration. In order to fulfill the basic needs of the existing residents, as well as those of the newcomers, while engaging their energy for the benefit of the production system, the government was faced with no other alternative but to become involved in large-scale public housing programs.

The large-scale public housing program was initiated after a fire in 1953 turned more than 53,000 people homeless in one of the many squatter areas mushrooming throughout the urban fringe. This program was subsequently strengthened as a successful means of political engineering

to pacify social unrest. After providing shelter to over 2.5 million people, or more than 45 percent of the total population, Hong Kong became the second city in the world (after Singapore) with the largest proportion of population living in public housing.

Public housing development in Hong Kong in the early years was constrained by the objectives of squatter clearance and resettlement. Before 1972, public housing units were predominantly used to resettle households from squatter and slum areas. Development during the early stage was, however, sporadic in nature, and was handled by various institutions without much planning and coordination. The Ten Year Housing Program, introduced in 1972, was the first comprehensive plan aimed at tackling both the problems of slums and squatters, and to provide housing facilities for 1.8 million people in permanent, self-contained homes with good amenities and a decent environment. In recent years, public housing development has shifted from the provision of shelters for basic needs to improving living environment and housing quality, in order to cater to the taste of an increasingly affluent society.

The policy of squatter clearance and resettlement, in fact, served as an important administrative strategy in urban management with several rewarding objectives. It successfully provided needed shelter to residents, releasing the government from politically sensitive pressure. The relocation of households from these squatter settlements and slums also was an effective political engineering process in the government's attempt to reorganize the social structure of these households for two separate, but related, purposes. First, it helped to disperse or reduce the potential left-wing political pressure of the low-income groups. The eruption of social unrest in 1967 pointed to the fact that most of the activities were, in one way or another, related to households in overcrowded slum and squatter environments. By relocating these people in newly built public housing units, with better living amenities in different localities, the government effectively reorganized the social network by disintegrating their existing power base.

Second, it allowed the government an opportunity to obtain land for urban development through land use succession. The land so acquired provided the private sector with the needed space for property development and urban renewal. The process of structural transformation of the city center and other urban development would have been more difficult than if there had been no large-scale resettlement programs initiated by the government. The success of the public housing program and property development in the urban areas inevitably strengthened the confidence of the investors, on the one hand, and provided more space for commercial and business transactions on the other. This, in turn, generated a chain reaction in transforming Hong Kong's urban economy and the associated landscape and physical form.

The first group of public housing estates built during the early phrase of development were actually at the fringe of the urban area. The introduction of the Ten Year Housing Program started a new phase of locational change. Public housing development began to move away from

the urban fringe to the New Territories, where large pieces of vacant land were available. It is relevant to point out here that in new towns of the New Territories, in addition to public housing development, sufficiently large areas of vacant land were also reserved for the hungry private property market. For example, planned private housing would accommodate about 30 percent of the population in large new towns, whereas that figure is around 70 percent in small new towns. The strategy allows the government a revenue to compensate for the cost of land production, and allows the private property sector a chance to participate. It also releases the government from too much financial commitment in housing provision. This apparently is different from the case of Singapore, where the public sector remains the major property developer (Wang, 1985).

The development of new towns in the New Territories appeared to be in contradiction to the traditional development policy of concentrating along Victoria Harbor. Nevertheless, the three new towns planned in the early 1970s—i.e., Shatin, Tsuen Wan, and Tuen Mun—were all considered far away from the Chinese border. In the late 1970s, other market towns as well as rural townships were upgraded to new town status.

New towns were initially developed as a quick response to social problems manifested in the form of housing demand and community unrest. The task was to build as many flats as possible. As a consequence, public housing estates and new towns so developed at the early stages reflected a serious lack of careful planning and design. Social amenities were fundamentally inadequate, and accessibility to urban areas limited. It was argued that despite the improvements in housing conditions, new town inhabitants were paying a high price in adjusting to the new environment (Chow, 1987). Myopic measures were introduced case-by-case as unique solutions when specific problems became acute. Schools were built, for example, a few years after a shortage of primary school places occurred. The situation was considered slightly improved in the new towns of later phases. Despite the fact that basic amenities were less than perfect, new towns were filled with quasi-voluntary migrants, as there has been a high demand over the limited supply of housing in the urban areas. In order to avoid the long waiting time for resettlement in the urban areas, many were induced to choose the less favorable new towns, gaining the trade-off of a long commute to work and to school with better dwelling conditions.

The opening up of the New Territories for new town development could be considered the first step in the structural change of the rural environment. Such a change had immense political as well as urban implications. It signified the dwindling of the political bargaining power of the Heung Yee Kuk in negotiating with the government on land issues, thus allowing the government for the first time to stretch its overall urban planning beyond Kowloon and Hong Kong Island. By doing so, the special status of the New Territories was officially reduced. Although negotiations with China about the future of Hong Kong was yet to begin in the 1970s, the large-scale population relocation to the New Territories could provide, at least in appearance, a potential bargaining asset

for the British and Hong Kong governments to iron out a favorable arrangement in the future, should there be a chance to prolong the British administration. Incidentally, once the outcome of the negotiation became clear, there was a shift in the government's development policy away from the new towns and back to developing urban areas through further land reclamation, as spelled out in the *Metroplan*. This helped to push up land prices in the urban areas to a new high, thus causing a new round of upward spiralling of the property market before 1997.

Public Transit System

Any efficient urban economy needs the support of an equally efficient transportation system. Public transport services in Hong Kong were seriously affected by an over-crowded environment with narrow streets. Commutes to work and to school became more difficult, with more and more people moving to new towns. There had been a mismatch of jobs and places of residence, with most of the offices and retail activities remaining in the urban areas. Factories that moved to new towns had the tendency of keeping their original workers, whereas residents in new towns had to find jobs elsewhere.

In order to cope with such problems, and to sustain the growth of the urban areas, a mass transit railway (MTR) system comprised of 43 route-kilometers with 38 stations was introduced. The 34-kilometer heavy Kowloon-Canton Railway (KCR) was also electrified, and a light rail transit (LRT) implemented. These three rail systems carry 27 percent of the total daily public transport passengers. This is equivalent to 2.7 million passenger trips, with the MTR taking three-quarters of the share. The other 7.5 million public passenger trips are being taken care of by bus, minibus, tram and cable car, ferry, residential coach, and taxi. The MTR system has indeed become an integrated part of the urban economy. In addition, plans were drawn up to link the LRT with the KCR and then urban areas. Six tunnels were put into service. These tunnels, particularly the two cross-harbor tunnels, contribute significantly to accessibility, which has immense implications for the restructuring of urban land form. An additional tunnel is being planned. All these transport infrastructure developments, as spelled out in the First Comprehensive Transport Study (CTSI), were completed in the 1980s. More transport improvements are being planned for in the Second Comprehensive Study (CTS2), which stretches from now to the year 2000.

With the completion of a well-connected transport network, the urban center will be ensured with the needed labor force, and at the same time it will be released from the burden of accommodating too many households. The two-prong strategy of relocating the urban dwellers to new towns and the provision of an efficient mass transit system allows the city to conduct massive property development and redevelopment, enabling impressive land use intensification and succession. It has also upgraded the standard of the living environment.

LAND AND PROPERTY DEVELOPMENT

Property development requires a supply of vacant land. The control and approval of land for property development, therefore, has become the government's main instrument with which to maneuver the direction of growth and development of the city. Hong Kong's development strategy has favored a concentration approach in principle, with certain population de-concentration measures, such as new town development, adopted for the purpose of promoting land use intensification and succession in the urban areas. Therefore, the provision of land for property development also follows this strategy.

The stock of all buildings in Hong Kong is estimated at over 100 million square meters, about half of which is housing (Walker, 1990). On average, there is about US\$1 billion worth of property for every square kilometer of built-up area. For each household there is about US\$200,000 worth of property. Contribution of property and construction to GDP has averaged over 24 percent and employed over 8 percent of the total labor force since 1980, making it the most important sector of the economy.

All lands are classified as Crown Lands in Hong Kong. They are sold or leased for private commercial, industrial, and residential development purposes by public auction or tender. By doing so, the amount of floor space to be built each year is monitored. With the help of the market mechanism, a close relationship between property development and GDP is generally observed over the years, with a time lag of about one year. Property booms in Hong Kong follow more or less an eight-year cycle, reflecting the economic performance of the city (R. K. N. Ho, 1990).

The MTR system also plays an important role in affecting the property market. Other than supporting the smooth circulation of passengers, it serves as a means of molding land use patterns. Significant spatial regrouping of commercial and business activities has occurred, with MTR stations serving as nuclei of attraction for new office and residential buildings. A series of property development activities has occurred along the MTR lines, and this inevitably has provided a significant boost to the property market and the urban economy as a whole (Wang, 1986).

Booming financial and banking activities have induced land use intensification in the central business district, generating a series of office and shopping complex developments. The property market, in turn, with the support of a strong financial sector, has witnessed an upward spiral both in terms of property prices and floor areas within and outside the urban core. Hong Kong's efforts in financial services enhance its leading position in the Asia-Pacific urban system. Today, both Hong Kong and Tokyo command respect as centers of innovation in the region. Such prestige attracts tourism, retail trading, and other service industries, in addition to financial activities. The arrival of over 18 million visitors each year indeed makes Hong Kong a focal point of attention. Interactions induce perpetual changes.

Public Policy, Speculation, and High Values

With a conservative budget policy, a surplus reflects more or less a fixed proportion to the amount of revenue from land sales by the government each year. The tied control of land release to the market may not necessarily follow the principle of maintaining stability in supply and demand. However, it sustains a high property value, with land prices in the auction on the rise over the years. This controlling mechanism also serves as an effective device to stimulate the property market, especially after any drastic downturn in the share market due to regional or international forces. In addition, housing is considered an investment with high return, and demand for speculation purpose is generally active. As a result, Hong Kong's property market was able to rebound at a faster rate than other major cities in the world.

The property and construction sector contributes to about one-third of the revenue in the public coffers. The influential position of the property market to the growth of Hong Kong's economy is further reflected by the high contribution of the sector to 45 percent of the city's stock market capitalization. The property sector actually dictates trends of the stock market and hence the urban economy. With such a position, one can appreciate the continuous support developers obtain from the public sector. This, in turn, affects efficient land use control and planning.

In view of this fact, it is understandable why and how private residential property values are constantly being kept high. With built-in speculation, the market is beyond the reach of many. The supply of public housing obviously plays a very important role in providing a cushion of comfort to the low-income families. Medium-income families, however, are caught in a situation where a high proportion of their household income is spent on accommodation. According to a recent survey, over 90 percent of the people indicated that the private residential property market was too high and beyond reach (Ming Pao, 1991). However, Chau (1988) argues that the low level of housing consumption was conducive, in fact, to economic growth because it could anchor a 'Spartan life' of hard work and abstinence.

The amount of land to be released each year is now fixed at about 50 hectares, in accordance with the terms set out in Annex III to the *Sino-British Joint Declaration*. This restriction, however, does not include land to be granted to the Hong Kong Housing Authority for public rental housing. The Authority, which is responsible for public housing development, has maintained a high production rate each year, with 53,000 flats built, for example, in 1990. Premium income obtained from land transactions is shared equally between the present government and the future Special Administrative Region (SAR) government after deducting the average cost of land production. This agreement has the intention of not granting too much land by the government before 1997, thus depriving the future SAR government of revenue collection, as well as sustaining the booming property market. This quota, however, has been strongly criticized as a major culprit by the general public for spiraling property prices.

Private property developers over the years have been quietly keeping a land bank, with stocks to last at least four consecutive years. This stockpiling is an effective device to manipulate market prices on the one hand, and to counteract against the land release quota fixed by the government on the other. Private developers have generally shied away from the tedious process of acquiring land from existing small owners for large-scale redevelopment purpose. Developers prefer to obtain land from the government through auction, in order to save time. Urban redevelopment, therefore, to an extent, becomes the government's responsibility.

PLANNING FOR THE FUTURE

So far Hong Kong has succeeded in building a strong economy and a vital urban landscape. All these were made possible with the efficient use of the abundant human resources, business wit, careful and ambitious investment ventures, the daring to take substantial risks, and the ability to make quick decisions. The availability of access to banking support, efficient communication facilities, and minimum intervention from the government have also been important factors. More importantly, the relatively stable working environment and vast market potentials in China and overseas allow active economic production to take place. With the transfer of sovereignty in 1997, uncertainties are bound to emerge, and this leads to the need for a careful evaluation of the city's potential in moving towards a new era.

Infrastructure Development and Planning

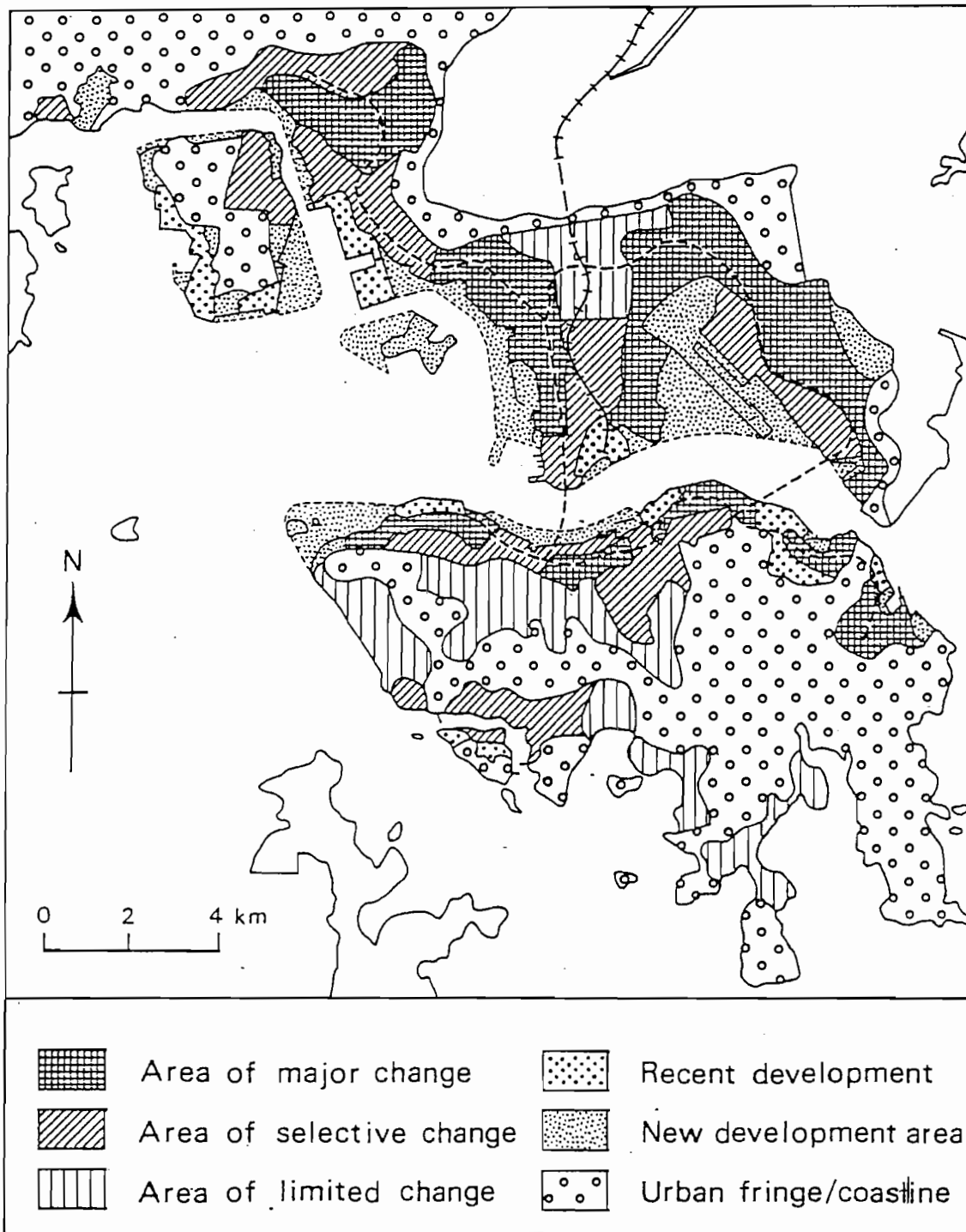
The Hong Kong government has the responsibility to maintain a smooth administration until July 1997. Other than attracting foreign investments and promoting markets for Hong Kong's products, the government is actively introducing large-scale infrastructure development plans and environmental control legislation. It is said that these projects are designed to encourage employment and induce business transactions. The most important examples are the *Metroplan*, the PADS, and the CTS2. However, these plans are being introduced on an *ad hoc* basis and without much integration, reflecting a major flaw in the development strategy of the territory. Further, one cannot avoid examining the long-term implications of these projects with interest and suspicion on the eve of sovereignty transfer.

Redevelopment and 'Metroplan'

Urban redevelopment has been relatively slow, whereas most of the major buildings in the central business district are erected on reclaimed lands. In order to fulfill the demand of the private sector and to plan for large-scale development of the urban center, a *Metroplan* was proposed to provide a concept plan up to the year 2011, with an emphasis on reclaiming over 1,250 hectares of land from Victoria Harbor, and another 749 hectares from re-zoning (Figure 13-2), thus increasing

Figure 13-2

Proposed Structural Land Use Change in Urban Area under the Metroplan



the land space of the urban center to 8,700 hectares at the end of the project. Such a move reaffirms the traditional policy of urban development favoring concentrated growth.

After more than 150 years of continuous development under a loose planning control policy, the city is now confronted with a series of land use problems. These problems include, among others, an incompatible land use mix; over-crowdedness and over-building; lack of open space and other community facilities; traffic congestion in residential, commercial, and industrial areas; and obsolete and dilapidated pockets of private housing. The experimental redevelopment projects introduced in the 1970s in the Western District of Hong Kong Island were abandoned (Lam, 1982) due to difficulties in land acquisition and other obstacles. The *Metroplan* is a renewed attempt to deal with the basic large-scale redevelopment and redesigning of the urban core, in order to provide remedies to the above urban problems.

The *Metroplan* also anticipates the development of the large piece of vacant land available as a result of the airport's relocation, although at the time that the *Metroplan* was released no official decision was finalized about the airport relocation. The mismatch in timing reflects clearly, but unfortunately, the lack of respect for public participation in major planning decision-making in Hong Kong, in spite of the fact that the *Metroplan* was subject to a period of public consultation with no public hearing. More seriously, several of the proposals listed in the *Metroplan* have in fact been either under implementation or approved by the government, such as the land reclamation projects and sewage management projects, before the announcement of the plan. The plan, therefore, is considered simply more of a document to justify many of the existing *ad hoc* project strategies, rather than a new proposal.

One of the major characteristics of the *Metroplan* is the emphasis of land reclamation from Victoria Harbor. A hidden objective of land reclamation along Western Kowloon is to accommodate the transport links to the Chek Lap Kok airport. Such a provision was not spelled out in the *Metroplan*. This generated enough confusion and disturbance among the general public. Planning in Hong Kong remains problem-solving-oriented with no convincing long-term vision.

Land reclamation has been a method of land production in Hong Kong, and the continuous practice of this strategy leads to very serious consequences for the city's future development. The attempt at reclaiming more land from the harbor, for example, is not conducive to the creation of an efficient urban center free from traffic and other congestion, although the concept of redeveloping the dilapidated sections of downtown is generally accepted.

There appears to be a lack of a comprehensive long-term conceptual plan for the city-state, which for years has prospered on borrowed land, borrowed people, and borrowed time. Myopic planning may provide a stoppage to certain immediate problems, but by doing so, new problems are created for the future. All plans in Hong Kong are supposed to be guided by a Territorial Development Strategy, which is a broad land use, transport, and environmental framework for the planning

and development of the territory. It is argued by the government that the announcement of the various plans has led to a comprehensive review of the Territorial Development Strategy in order to assess the implications of the proposed port and airport development, and current policies on the environment and transport (Hong Kong Government, 1991). It is hoped that on completion of the review, the strategy will lay down the framework of infrastructure provision to satisfy long-term development needs, especially in the distribution of population, employment, and economic activities.

However, one may question the government's intention in securing a blueprint of development which stretches beyond 1997, in light of the fact that the fundamental principles adopted by the *Metroplan* is to reemphasize the strategy of concentrated development. This strategy is not conducive to the more urgent need for Hong Kong to strengthen its process of spatial integration with Shenzhen and the urban system of Pearl River Delta. To enhance the traditional development trend of moving away from the border implies the seeding of centrifugal forces against future spatial development trends. This, apparently, is not in line with the intention of a smooth political transition. It also has the underlining potential of hindering future efforts at reorienting the overall urban development strategy of Hong Kong.

The Port and Airport Projects

The Port and Airport Development Strategy (PADS) has also developed along a similar line of thought, by locating the facilities in the southern part of the territory, and thus maintaining a reasonable distance away from the Chinese border. Several earlier proposed sites for the new airport were all rejected by the Authority because of the distance criterion (Wang, 1991). The PADS is a product of political pressure embedded on economic reality. It was due basically to the strong request of the commercial sector that the government of Hong Kong eventually pulled out the airport redevelopment project, which had been delayed on many occasions for political and economic reasons. Ostensibly, the airport relocation project was chosen as an instrument to stimulate business and commercial confidence after the Tienanmen incident in 1989. In order to further glorify the scale of commitment of the Hong Kong government to economic development and the provision of a 'Rose Garden' before British departure, it was deemed necessary to incorporate an exaggerated port development with the new airport project. To justify the need, the future demand for port facilities was over-estimated with an assumption that existing and future competing ports in the region would not lead to loss of trade in Hong Kong. While demand has been exaggerated, the price tag of the PADS project of US\$16.3 billion is believed by many to be grossly underestimated by the Hong Kong government (Wong and Leung, 1990).

The introduction of the PADS generated heated arguments for almost two years among the Chinese, Hong Kong, and the British Governments on the one hand, and between the Hong Kong government and the residents on the other (Wang and Sit, 1991). The arguments were concen-

trated mainly on the scale of the project, and on how, why, and where the new airport should be built. The Chinese government felt strongly the need to be consulted for any project that would stretch over 1997, as it was the future SAR government that would be responsible for the public financing of the territory after the return to Chinese sovereignty. The Hong Kong government felt otherwise after arbitrarily pushing backward the estimated date of the project's completion from the year 2001 to before July 1997. It was only after months of political negotiations between Britain and China that a Memorandum of Understanding was finally signed by the prime ministers of both countries, bypassing Hong Kong.

Ironically, the PADS was originally a proposal introduced to boost confidence and economic growth. It was orchestrated into a series of disputes between China and Hong Kong, which seriously eroded the carefully cultivated good relationships after the signing of the Sino-British Joint Declaration in 1984. Thus, it causes much concern domestically and abroad. The Memorandum of Understanding allows the project to go ahead, but many of the technical and aviation problems and difficulties embedded in the PADS proposals have yet to be solved (Wang et al., 1990). Whether or not the two governments will be able to maintain the level of cooperation similar to that before the dispute remains to be seen. Further, with three new international airports (at Hong Kong, Macao, and Shenzhen) being built within a radius of 50 kilometers on the Pearl River Estuary, one questions the efficient use of scarce resources and the logic of spatial planning and integration, keeping in mind that Hong Kong and Macao will be part of China before the turn of the century. This also points to the importance of consultation, cooperation, and understanding among the three administrative units in order to chart out the careful planning and design of future development in the region.

A New Urban Form and Structure

The emergence of new towns in the New Territories signified the beginning of a massive structural change of the urban form. This massive structural transformation of the city was made possible with the development of an efficient transport infrastructure. Increasing accessibility reduces the spatial gap of property prices, and the reorientation of consumer preferences with regard to residential and job locations. With the New Territories being gradually urbanized, one observes the emergence of a northward movement of urban activities. Manufacturing activities were first relocated to new towns in the New Territories, and further to Shenzhen and other urban centers in the Pearl River Delta. The spread of manufacturing activities across the border on the one hand, and the continuous concentration of higher-order commercial and business activities towards Victoria Harbor on the other, enhance the vertical and horizontal expansion of the spatial economy of Hong Kong.

Therefore, it may be justifiable to argue that new town development in fact was an unspecified strategy of sustaining and promoting a strong urban center for the active commercial and bank-

ing sectors. The building of new towns as lower-order suburban centers actually enhanced the competitiveness of the central business district. Although new towns were claimed to be self-contained and balanced in growth by the government, the claimed objectives were actually not implemented. Self-containment and balanced growth were the claimed objectives that the government had no intention to fulfill. These slogans were adopted, however, to make resettlement easier in the beginning. There were serious questions about the conceptual planning, or the lack of it, of Hong Kong's new towns (Leung, 1980). As a result, the efficiency and equity of public housing programs were adversely affected (Chau, 1988).

Notwithstanding the shortcomings mentioned above, the security of tenancy, and the low and stable rent charges on public housing held down the cost of living, reduced labor turnover, and raised labor productivity. In short, new town development successfully strengthened by default the growth of the urban center and the production system of the city. Should new towns succeed in becoming self-contained, the ultimate objective of building a strong urban-center-based metropolis would not be difficult, if not possible. It has been part and parcel of an unwritten strategy adopted to support a capitalist system of production. The system all along has been built on the principle of maintaining maximum flexibility in the private sector and allowing only minimum government intervention. As a result, the trading center has been transformed successfully into an international metropolis. On the other hand, the residents have been struggling along with a least-favorable living environment with over-crowdedness, congestion, and pollution, among others.

The introduction of a series of development concepts in *Metroplan* signifies an attempt of the government to further strengthen the urban center. This in turn would discourage the momentum of locational shift of economic activities towards the border, so as to produce sufficient centripetal forces before and after 1997. The successful relocation of people to the New Territories during the last two decades or so has provided a strong base for further spatial integration with Shenzhen, which is also fast becoming a major industrial city of over a million people. With new town development and the *Metroplan* aiming at different and opposite directions, future urban development of Hong Kong remains disoriented, to say the least. This, inevitably, reduces the chances of a new and clearly defined urban form emerging after 1997, which would stimulate spatial integration with Shenzhen and the urban system of the Pearl River Delta.

THE LEAD UP TO 1997 AND BEYOND

If past development trends can serve as any indication for the future, Hong Kong's ability to adapt to a changing environment would allow the city to emerge successfully as the economic hub of South China. Nevertheless, this will be made possible only with the continual adoption of the existing production system, together with a government policy very different from the existing practice of intentionally discouraging spatial integration.

The most critical issue for Hong Kong appears to be the ability to maintain stability in order to achieve a smooth transition in 1997, and to sustain continuous growth thereafter. Stability is indeed a transient phenomenon in a city affected, socially and economically, by perpetual disturbances, many of which occurred in China. Unfortunately, but understandably, this will become the point of reference for many in judging the future of the city-state. Therefore, it is generally argued that the future of Hong Kong is very much dependant on development in China.

It may be equally true to assert that, in addition to Hong Kong's own initiative and persistence, the growth of the city economy has all along been supported, intentionally or otherwise, by careful design by China. The open door policy implemented in China requires the support of an efficient Hong Kong as its 'window' to the world market, and a high level of stability is absolutely essential for Hong Kong to provide such a service. Efforts have been made by the Chinese authorities on many occasions to help sustain the stability and prosperity of Hong Kong by investing heavily in the territory at times of economic downturn. As long as no drastic disturbance occurs that might affect the close working relationships developed for this common objective, growth in China in general, and the Pearl River Delta in particular, will ensure the continuous prosperity of Hong Kong.

The urban development strategy over the years has steadily established Hong Kong as an urban entity uniquely situated at the doorstep of China, revealing a significant contrast both in outlook and in production. But the more distinctive Hong Kong is from the cities of China, the more it is likely to be subject to potential interference from China, in terms of social and economic viability. An absolutely independent Hong Kong simply does not and cannot exist.

There have been occasions where the city was trapped in a confused dilemma of whether to maintain its uniqueness or to succumb to economic and political reality. By withholding the spatial spread of office development to the New Territories, a locationally identifiable urban artifact was established. Such a deliberate centripetalization of office buildings in the urban cores on both sides of Victoria Harbor in fact generated an effective centrifugal force pushing the manufacturing activities to the New Territories, and subsequently across the border into China. Once this factory relocation is in full force, Hong Kong will be structurally tied up with Shenzhen and other towns in the Pearl River Delta, although it is trying hard to keep its centrality in appearance. The continuous emphasis of such a concentrated development policy therefore does not serve any actual constructive purposes in the long run. The policy has long served its purpose. Any attempt to emphasize its viability in the future may prove counterproductive. This is especially so with the returning of sovereignty in 1997.

This does not, however, imply that the free competitive economic system of Hong Kong should not be protected. In fact, its continuity is supposedly assured in the Sino-British Joint Declaration and the Basic Law under a 'one-country two-systems' arrangement, which allows the continual practice of the existing capitalist production system for another 50 years after 1997. The

essential urban development issue now is how to increase interactions with China in order to maintain Hong Kong's stability and viability, and at the same time its unique identity. Perpetual self-isolation discourages growth, and inevitably creates mistrust and misunderstanding. As long as Hong Kong strengthens its existing role as an indispensable element to the Chinese economy, there is no reason why the prosperity of the city cannot be maintained. Taking an active part, for example, in China's modernization programs is, at present, a useful strategy in ensuring such a position.

NOT WITHOUT PROBLEMS

The urban economy, however, is not without problems. Due to a lack of a set of clear financial and fiscal guidelines and policies under the least-intervention principle adopted by the government, the overheated economy has been affected by increasing inflation in recent years. The large-scale infrastructure development projects under implementation provide more fuel to the problem. The new airport project, for example, may exert more pressure onto the labor market which is already short in supply, causing a competition among the various sectors and hence inflation in wages and production costs. Huge investment in the project may also not be favorable to the international balance sheet. With the Hong Kong dollar closely pegged to the American dollar, any adjustment that aims at keeping a balance would slow down the economy. This apparently is a potential obstacle to the badly needed continuous growth of the economy during the political transition period.

The possible suspension of the Most Favorable Nation (MFN) status to China by the United States remains a serious threat to Hong Kong's production system because of its potential effects on the re-export trade, the deep involvement of Hong Kong capital, and investment in factories in China, among others. The decreasing competitive edge of the city among the four small dragons (i.e., Hong Kong, Taiwan, South Korea, and Singapore) in terms of cost of production, market shares, and research and development may lead to a weaker economic performance in the future. To date, productions are still on the rise and the city is full of flamboyance. Whether there is a leveling-off point in the future depends very much on Hong Kong's ability to come up with a well-defined long-term economic strategy. Such a strategy appears to be lacking in any of the blueprints proposed by the government so far.

It is perplexing that growth has been maintained under a somehow chaotic arrangement of development priorities over the years. Perhaps it was the interplay of the free market mechanism and a high level of uncertainties which demanded hard work as an alternative for survival that withheld the balance. Though transient as it may be, it allows Hong Kong to prosper through a series of perpetual change. With hard work, supported by a better physical and human infrastructure and a carefully nurtured confidence, a politically stable China, plus perhaps a favorable international economic climate, Hong Kong is expected to excel into the next century.

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CHAPTER 14

SINGAPORE: THE PLANNED NEW CITY OF THE PACIFIC RIM

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INTRODUCTION

Compelled by the need to succeed and survive, the leaders of Singapore have used electoral politics, rational analysis of needs, and strong political control to become a remarkable example of economic development success. This chapter provides an insight into the development of one of the Pacific Rim's most unique cities.

Along with South Korea, Taiwan, and Hong Kong, the tiny country of the Republic of Singapore is labeled as one of the four dragons, tigers, and newly industrialized countries (NICs) of Pacific Asia. The "miracle" of Japan's earlier economic re-emergence often has been something of a model for these NICs. This has been the case in Singapore's policy and program planning. However, Singapore has evolved with its own unique style of urban development, and it represents a source of important lessons for students of planning and for other cities, and is as well an example of the emergence of the Pacific Rim in today's global networks of financial and communications linkages.

In addition to its strategic location, the principal resource of the Republic of Singapore is its 2.7 million people (as of the end of 1989). Singapore consists of the following, mostly immigrant communities: 2,049,500 million Chinese (75.8 percent); 413,200 Malays (15.3 percent); 175,700 Indians (6.5 percent); and 65,100 others (2.4 percent) (*Singapore Bulletin*, June 1990). Singapore's gross national product per capita in 1987 was US\$7,940, one of the highest levels in Asia (The World Bank, 1989). Economically, Singapore's policies of export development have been based heavily on the investment of more than 650 foreign transnational corporations.

In the more than 30-year period since Singapore's internal self-governance began in 1959, this city-state has planned and worked itself from being a pre-industrial to a post-industrial city.

This chapter addresses two development sectors, foreign real estate investments and information technology. They illustrate, in part, how Singapore's leadership and people have accomplished this rapid and largely planned transformation. Both of these sectors are representative of the ways that Singapore attained its status as the planned new city of the Pacific Rim.

A CULTURE OF PLANNING, MANAGEMENT, AND POLITICAL CONTROL

Unlike any other large city of the Pacific Rim, Singapore's development has been characterized by holistic, active interventionist strategies and planned programs of implementation. Early in the post-colonial days of independence, Singapore's leadership was compelled by the need to survive. As a consequence, Singapore's leaders planned and managed the city's development to a high degree.

As a result of a generation of trial-and-error practices, Singapore's elected officials, their bureaucrats, and the populace have evolved a culture of planning and management that is continuously steered and stimulated by a mix of domestic political pronouncements and international economic and political forces. The role of the state has been paramount in the modern development of Singapore (Corey, 1987).

In 1965, the Republic of Singapore was formed. This was a result of separation from Malaysia after two years of being part of that neighboring country. With little lead time, the tiny new sovereign city-state of Singapore found itself having to address severe development needs. These included: high unemployment; outmoded infrastructure; massive housing shortages; slum housing; a high rate of population growth; a diverse, relatively uneducated immigrant population; a small and poor domestic market; labor unrest; and political instability. The People's Action Party (PAP), under Prime Minister Lee Kuan Yew, exhorted Singapore's heterogeneous population to pull together and to begin the process of nation-building. By following the leadership of the PAP, these new Singaporeans were told that they would not only survive, but if they worked hard enough, they would be rewarded with an improved quality of life for themselves and their children.

The People's Action Party (PAP) has been in power since 1959, having won eight general elections in succession. In the 1988 general election, the PAP won 80 [parliamentary] seats, polling 61.76 percent of the total votes. One seat went to a member of an opposition party (Information Division, 1989).

Throughout the history of independent Singapore, the PAP has practiced the politics of using the issue of national survival to support its measures. The government regularly re-articulates the "contract" that a higher quality of life will be provided if the electorate continues to support and return the PAP to power.

Since the early days of independence, the prime instruments of the PAP have been the civil service and the bureaucracy. They executed the strategies formulated by the internationally educated, first-generation elite of the PAP, like Prime Minister Lee Kuan Yew and then-Finance Minister Goh

Keng Swee. This general approach by PAP leaders continues to this day. In recent years, there has been a systematic attempt to prepare younger leaders of the PAP to gradually assume the key roles of government as the first generation of PAP leaders retire. Some of the most prominent younger PAP leaders include First Deputy Prime Minister and Minister for Defense Goh Chok Tong and Lee Kuan Yew's son, Lee Hsien Loong, Minister for Trade and Industry and Second Minister for Defense (Services). Goh Chok Tong has been named to be the next prime minister.

SPACE, LOCATION, AND CONNECTIVITY

Singapore has two unique natural attributes that have strongly influenced its planned development and resulting prosperity. These are its limited space and its strategic location. Both of these geographical qualities have led to Singapore's heavy reliance on foreign investment and linkages with the rest of the world. Singapore is dependent on external regional and global forces for its quality of life, and ultimately for its very survival.

Even after a generation of growth and successful development, the fragility of Singapore's existence is made apparent each time that it experiences global recessions, as in 1985, or when there are communal tensions in Southeast Asia, as when Muslims in Malaysia led region-wide protests against the 1986 visit to Singapore by the President of Israel. In a world of larger, powerful neighbors and macro-economic perturbations, the political leaders of this tiny city-state have developed experimental approaches to survival that are innovative, pragmatic, flexible, and, above all, planned and managed so as to improve the Singaporean quality of life and thereby reinforce the PAP's re-election potential.

Singapore island is small in size; indeed, at 570.4 sq.km., it is tiny (see Figure 14-1). This severe space constraint has necessitated creative approaches to the development of the city's limited land. Singapore planners have devised several interventions that have proven effective in enhancing land development and land planning in Singapore. These have included: (1) the use of a development charge for the granting of planning permission to develop land parcels; (2) the compulsory acquisition of private land for public purpose; (3) the extensive use of leasehold over freehold property rights; and (4) the use of the Master Plan as the statutory plan governing land use in Singapore (Leung, 1987).

Singapore planning is known worldwide for its effective public housing accomplishments. Eighty-seven percent of the Singapore population has been housed in ninety-five planned new towns and public housing estates. Over 600,000 housing units have been provided since 1960. This is one of the largest public housing schemes in the world. The program has involved a comprehensive approach to housing development by using high-density developments to take advantage of the country's lack of space. The program also has evolved using innovative construction and housing management schemes in order to properly house Singapore's diverse population in a relatively short period of time (Wong and Yeh, 1985; HDB, 1988).

Figure 14-1

Singapore and the Pacific Rim



Singapore's other principal geographical attribute, location, has also significantly influenced the evolution and development of this new Pacific City. Dating back at least to the 1819 treaty between the Sultan of Johor and the East India Company, its location at the southern tip of the Malaysian peninsula has been critical to Singapore's development. At that time, Singapore straddled the critical India-to-China sea trade route. From these early trading-post days, Singapore has developed into the world's busiest seaport by shipping 396 million tons on 35,966 vessels in 1988.

The city-state of Singapore has been built on a foundation of experience of nearly two centuries of being one of the world's most important crossroads and entrepots, with all of its accumulated expertise in international trade and spin-off institutions being fully utilized and adapted to the uncertainties of today's information age. Singapore has taken its comparative advantage of strategic location to create innovative levels of interconnections with all parts of the world. For example, Singapore's Changi Airport has been widely recognized as one of the world's finest international airports, as regards both air passengers and air cargo. Singapore Airlines also has earned a world-class reputation for both outstanding air passenger and air freight services. In turn, these investments have facilitated the development of tourism and a growing hospitality industry.

Complementary to the connectivities of these seaport and airport accomplishments, Singapore leaders have planned and developed one of the earliest and most contemporary national information technology (IT) programs. Based in part on its entrepot history, Singapore planners and managers have drawn on prior, tried and tested approaches perfected in other development sectors in the formulation of its IT strategy. From those sectors, Singapore planners learned early that public investment in infrastructure, and the provision of incentives that are especially attractive to foreign investors, can combine to generate effective development. This same combination has been used to plan Singapore's IT future. By analyzing Singapore's approaches to the development of its land resources and its information technology resources, lessons may be suggested for understanding the planning and management techniques that have been used in creating this planned new city of the Pacific Rim. It should be recognized however, that this is a city with unique space and locational attributes.

ECONOMIC DEVELOPMENT STRATEGIES

Three phases have characterized economic development in Singapore: (1) early import substitution (1960 to 1966); (2) labor-intensive export development (1966 to 1977); and (3) high-technology, skill-intensive export development, and the promotion of fee-based financial and related services after 1977. These shifts in strategies are not precise, but serve as useful benchmarks when viewing the planned economic progress of Singapore.

The success of the above strategies is indicated by the growth in the nation's gross domestic product (GDP). GDP grew by 692 percent, in 1968 market prices, during the period 1960-1986, or approximately 25+ percent per annum (Table 14-1). Four principal areas of sectoral growth were

Table 14-1

Growth in Singapore Gross Domestic Product by Industry, 1960-1986
(At 1968 Market Prices)

<u>Industry</u>	<u>% Change</u>
Agriculture & Fishing	43.8
Quarrying	800.0
Manufacturing	1,172.4
Utilities	956.8
Construction	1,160.4
Commerce	445.9
Transport & Communication	1,255.6
Financial & Business Services	1,637.4
Other Services	412.2
Less: Imputed Bank Service Charges	6,398.6
Add: Import Duties	63.5
Total Gross Domestic Product	692.2

Sources: Chief Statistician, 1983; and Chief Statistician, 1986.

the manufacturing sector (1,172.4 percent), construction (1,160.4 percent), transport and communication (1,255.6 percent), and the development of financial and commercial services (1,637.4 percent).

Attracting Foreign Investment

An important contributor to this economic expansion was large amounts of foreign investment in buildings and equipment. For example, foreign net commitments in manufacturing were S\$156.3 million in 1972, and S\$1,185.7 million in 1986. In contrast, local net commitments for the same time periods were S\$38.2 million and S\$253.4 million, respectively.

To attract foreign investment, Singapore developed a number of different incentive schemes, with tax inducements as a major tool. These tax incentives included the following: pioneer status for new activity in manufacturing or services; investment in new productive equipment and machinery for manufacturing activities; investment allowance incentives; warehousing and servicing incentives for fixed investment in building and productive equipment; foreign loan schemes; royalties for approved manufacturing and servicing activities; and new technology project investment.

Property Development Authorities

The considerable role of government through property development authorities also was crucial to Singapore's economic development process. For example, numerous incentives were provided to foreign investors, in terms of infrastructure and land development, to facilitate rapid growth with a minimum of delay. Ministries, major statutory boards (e.g., Housing and Development Board), and government-backed holding companies also entered the property market as real estate developers. These government investments in real property aided the economic development process but also limited, along with other constraints, the amount of fee-simple foreign ownership of land.

The discussion below focuses upon two principal sectors where the Singapore government was active in promoting real property incentives to foster economic development and attract foreign investment. These two sectors are the industrial and commercial real property markets. Before considering specific details of these sectors, a brief discussion of the Singapore property markets provides additional insights.

A major constraint in Singapore's property markets is the small physical size of the Republic. Total national land area is approximately 620.2 sq.km., including 54 small islands of which about 24 are large enough to be inhabitable. Historically, land size has increased, especially on the main island, as the Singapore government embarked upon reclamation projects to expand the land area. One key constraint imposed by the small land mass of the Republic is that real estate development involves vertical, rather than horizontal, expansion. Recently, reclamation or refurbishment of outdated structures has become an important part of total real estate activity (*Asian Wall Street Journal*, 1988).

Three factors deserve careful examination when viewing Singapore's real estate markets. First, the ownership role of government ministries, statutory boards, and government-controlled holding companies is considerable across all real property sectors (i.e., residential, commercial, and industrial). Second, the types of land tenure, especially for prime industrial and commercial properties, generally involves leasehold rather than fee-simple ownership privileges. Finally, the important role of government investments in infrastructure, etc., to the economic development of the country deserves recognition.

Industrial Property

The development and management of industrial property in Singapore is controlled primarily by the Jurong Town Corporation (JTC), a public-sector company established by an Act of Parliament in 1968. In 1986, JTC managed 25 industrial estates throughout the Republic with an additional eight estates in the planning stage. On these industrial estates there were 3,193 companies operating and employing 182,803 workers, or 62 percent of the total manufacturing workforce.

Foreign or domestic companies investing in any of the Jurong Town Estates had four alternatives. First, companies could enter into long-term 30- to 60-year land leases, depending upon the size of the investment and subject to negotiation, for prepared industrial land sites throughout Singapore on which they could develop their own factory. The second alternative involved leasing pre-constructed, low-rise factory buildings, known as standard factories. A third alternative, attractive for smaller businesses, was renting single floors or parts of a floor in high-rise, flatted-factory buildings. Finally, small companies needing various types of support services could lease space in industrial workshops and showrooms. The terms varied for each type of industrial space. However, no provisions were made for fee-simple land tenure in any of the JTC estates. Lease arrangements for factory space in any of the above could range from 3 to 60 years, depending upon the type and amount of space.

In addition to providing the infrastructure and completed factory buildings, monetary incentives were employed to attract select industries to the JTC Estates. Another incentive introduced in 1983 to promote skill-intensive service companies involved renting out flatted-factory space to firms concerned with computer software, specialized engineering consultancy, and technical and laboratory testing. Prior to the introduction of this incentive, occupations of JTC flatted-factories were limited to manufacturing operations.

The strong presence of the Jurong Town Corporation in the industrial sector limits foreign ownership of industrial land, since a major portion is owned by the public sector. For example, approximately 77.3 percent of the total industrial land belonged to JTC in 1982 (derived from Planning Department 1983, 21; and Jurong Town Corporation, 1981-82). This figure probably understates JTC's position in the market place since about 283.6 hectares of industrial property

were added to JTC's holdings between 1982 and 1986 (Jurong Town Corporation, 1985-86), primarily through reclamation efforts.

Another statutory board involved in industrial land is the Housing and Development Board (HDB), established in 1960. While HDB was responsible primarily for public housing, 20 percent of the land was allocated for light, clean industries in new towns. The objective was to provide employment for the working portion of the population within the new towns. In keeping with the prevailing strategy, preference was given to businesses with potential to upgrade industrial skills, such as hardware and software computer manufacturing companies. HDB industrial land was leased on a 30-year term with an option to renew for another 30-year or 60-year term depending on the location of the business. There were no provisions for fee-simple ownership.

Commercial Property

Commercial property refers to office buildings, shopping centers, and hotels. In Singapore, commercial property is primarily located in the Central Area (Central Business District) and Orchard Road (a major shopping and tourist area).

The Urban Redevelopment Authority (URA) was entrusted with the redevelopment of the Central Area, the hub of Singapore's trade and commerce, which accounted for 71 percent of total office floor space, 56 percent of total hotel floor space, 78 percent of total hotel rooms, 37 percent of all restaurant floor space, and 45 percent of total shopping floor space in 1982. Some of URA's activities encompass other parts of Singapore, but the principal focus has been in the Central Area.

The URA's redevelopment process involved accumulation and preparation of urban land for long-term lease to private developers who built their own facilities. "Through the Sale of Sites Programme, the URA releases for comprehensive redevelopment land assembled from small plots. The parcels are sold to the private sector by tender system" (Urban Redevelopment Authority, 1983).

The URA held eleven sales between June 1967 and June 1982, where the word "sale" refers to a 99-year land lease (a developer is generally given a 103-year land lease — i.e., a 5-year period to develop property) instead of fee-simple ownership.

In addition to the Sale of Sites Programme, the URA constructed and operated its own complexes. However, the URA was not the only public-sector agency active in the office market, as illustrated by the following quotation:

. . . a noteworthy feature of the office situation in Singapore is the relative abundance of office space currently provided or to be provided, by the public sector (i.e., Government, statutory boards, and companies wholly owned by Government and/or statutory boards). As of September 1985, the public sector owned some 891,000 square metres (33 percent of the national figure), with excess space of about 123,000 square metres (27 percent). (Report of the Property Market Consultative Committee, 1986.)

This program led to public comments in 1985 that the URA was in competition with the private sector and causing an oversupply of commercial property. For example, a quote from a 1985 article in the *Straits Times* illustrates the concern:

At least 16 government buildings, costing about \$1.5 billion or more and with areas totalling hundreds of thousands of square metres of office space, are coming on to a market already facing a glut of office space.

The developers are ministries, major statutory boards, government-backed holding companies and the Changi Airport Development Division . . . (Lee, January 2, 1985).

This situation created concern about the government acting as a competitor to private real estate developers, as indicated in this quote:

We accordingly recommend that the public sector should not compete with the private sector for tenants but reserve its buildings for its own use (Report of the Property Market Consultative Committee, 1986).

In 1986, the commercial property market became more attractive as the Singapore economy turned around from a serious downturn in 1985. However, the major investors were local entrepreneurs. By 1987, some foreign investment began to show interest in Singapore, principally in the hotel market. Additional foreign investment occurred in 1989, stimulated by the following:

The Tiananmen incident has in fact turned the eyes of the businessmen in the region towards Singapore. Hitherto, Hong Kong had advantages over Singapore being the gateway to China and having a longer established financial and services sector. The incident, together with Singapore's timely announcement of tax incentive policies for companies setting up overseas headquarters here, had a large number of multinationals in the region deciding to move their headquarters to Singapore (Low, October 24, 1989).

The above positive developments in the office market, however, did not eliminate another difficulty in attracting foreign property investors. Specifically, the constraint was low yields generated by various types of properties in the Republic. For example:

The relatively low yields, 3 to 4.5 percent for prime office, 6 to 9 percent for quality retail, and 4 to 7 percent for residential and industrial — have discouraged major pension funds and institutional investors. They find Singapore's stability and location attractive, but have so far been deterred by the relatively low returns. Those who have made commitments here look to capital appreciation, and the absence of a capital gain tax as an advantage (Low, October 24, 1989).

Lessons from Singapore's Experience with Foreign Real Estate Investments

One of the lessons implied by the Singapore experience is that foreign investment can enhance the economic growth of the local economy. Singapore demonstrates that an aggressive policy to attract direct foreign investment can be beneficial to the economic growth of the economy. A second lesson is that fee-simple ownership of real property is not always necessary to attract productive investment from abroad. However, local investment in infrastructure, incentives to

attract preferred direct foreign investment, and active marketing of the benefits of investing in a particular country are important ingredients to success.

The small size of the Singapore real estate markets, the substantial role of government and public-sector organizations, the land tenure alternatives, and the low investment yields appear to be major factors explaining the relatively limited foreign ownership of land in Singapore.

INFORMATION TECHNOLOGY: A NATURAL FOCUS FOR SINGAPORE'S DEVELOPMENT

Independent Singapore has long planned and strategized to draw on its geographical and historical strengths to achieve niches, both regionally and globally. Even at the height of its traditional industrialization program in 1970, PAP leaders were looking to the future and calling for "science-based and technology-oriented industries" (Goh, K.S., 1972). They were preparing to strategically place the city-state in an advantageous position for a world economy that was then expected to increasingly rely more on services and relatively less on manufacturing. Stimulated by the economic downturn in Singapore of 1985 (Table 14-2), Singaporean strategists issued the report of the Economic Committee, *The Singapore Economy: New Directions* (1986). Among many other proposals, the committee recommended an accelerated strategy for having Singapore diversify its development portfolio from that of an offshore industrial production and assembly base for developed countries, to become also a Southeast Asian regional headquarters for transnational corporations (TNC). This new niche, driven by research and development, would produce a modern and strengthened capacity for Singapore to export services and capital. One of the city-state's major policies for stimulating this form of post-industrial growth is an information technology program.

By the late 1980s, Singapore had experienced the planned pre-conditions to enable it to move to the implementation of a national Information Technology (IT) plan (National IT Plan Working Committee, 1985). This had been preceded by a national computerization program begun in 1981 (Goh, C. T., 1981), and that initiative had been preceded nearly a decade earlier by a call for Singapore to be transformed "into a regional center for brain services and brain service industries" (Hon, 1972). Singapore's civil service was used to pilot computerization practices and standards and thereby gain sufficient experience to provide technical assistance to Singapore IT companies and local software developers (*IT Focus*, March 1990). In the near-term, future various government databases also will be made available to non-governmental users.

National IT Plan

In late 1984, a government working committee began to conceive an IT strategy for Singapore. Eighteen months later the committee's work resulted in a seven-element plan: (1) developing IT "manpower" and personnel; (2) promoting an IT culture; (3) continuing to up-grade an information-

Table 14-2**Employment and Gross Domestic Product Change in Singapore, 1980-90**

	<u>Employment Change (No. Employees)</u>	<u>GDP % Change</u>
1980	37,200	9.7
1981	62,200	9.3
1982	41,500	6.3
1983	35,800	7.9
1984	-7,200	8.2
1985	-101,100	-1.6
1986	11,100	1.8
1987	66,000	9.4
1988	65,900	11.1
1989	68,100	9.2
1990 (I qtr.)	14,100	10.0
(II qtr.)	14,000	6.8

Source: Economic Survey of Singapore 1980 Through Second Quarter 1990, Ministry of Trade and Industry, Singapore.

communication infrastructure; (4) finding new applications for IT; (5) building a Singapore IT industry; (6) encouraging creativity and entrepreneurship in IT; and (7) implementing the plan by coordinating the previous six plan elements and collaborating among Singapore's government agencies, statutory boards, authorities, and institutions, and with the private sector, including both TNCs and local Singaporean firms (*Straits Times*, 1986; Corey, 1990).

The city-state has set, as its most recent IT goal, becoming a world-class exporter and exploiter of IT products and services (Ministry of Trade and Industry, 1990). Compare this to then-Finance Minister Hon Sui Sen's 1972 goal cited above of having Singapore transformed "into a regional centre for brain services and brain service industries" (Hon, 1972). While these similar goals are separated by eighteen years, a great deal of progress recently has been realized, especially through the various programs that have been stimulated by the National IT Plan. The next section illustrates some of the representative accomplishments of Singapore's decade-long IT initiatives, first as a result of the 1981 computerization program, and second as a result of the 1986 National IT Plan.

How IT Happened

In 1980, there were 850 IT professionals in Singapore; by the end of 1988 there were 8,300 IT professionals practicing in Singapore. This workforce in 1991 is 10,300; by the year 2000, Singapore IT workforce needs are projected to be 30,000 professionals. Of these IT professionals, 65 percent do software development; 12.4 percent are IT managers; 5.5 percent are hardware professionals; and 4.8 percent do IT marketing. Thirty-six percent of these IT professionals are women. Over 85 percent of this IT workforce is Singaporean; nearly one-third holds an IT degree; 34 percent of the IT graduates have degrees from overseas. (IT Manpower Survey, 1989 and 1990.)

In order to educate local professionals for possible employment in the IT sector of Singapore, both tertiary education and skills development programs are underway. The total 1988-1989 student population at the National University of Singapore and the Nanyang Technological Institute has been increased 7.5 percent to 20,120 students. Together, the two institutions produced 5,302 graduates; this is a 12 percent increase. Of the enrollees, 46.8 percent (9,421) are in science, engineering, and computer technology; of the graduates, 43.3 percent (2,295) were in science and engineering. By 1991, Nanyang Technological Institute will become a full-fledged university, with concomitant expansion of enrollment and the addition of two new curricula in computer technology and commerce. Graduates of the latter curriculum will be educated for careers in information services such as finance, banking, insurance, industrial management, and marketing (Ministry of Trade and Industry 1990, 73-75). In 1990, an additional polytechnic was opened, bringing the total number of polytechnic institutions in Singapore to three. A total of 19,367 full- and part-time students received skills training in 1989, via the Institutes of the Vocational and Industrial Train-

ing Board, and the Economic Development Board Joint Industrial Training Centers and Institutes (Ministry of Trade and Industry, 1990).

In 1988, a massive in-service IT literacy program was initiated called ITPOWER. Jointly developed by the National Computer Board and the National Productivity Board, ITPOWER is intended to benefit an estimated 200,000 office workers in Singapore. More than 9,000 such workers have been trained to date (*IT Focus*, June 1989, 6; *IT Singapore*, May 1990).

Singaporeans receive a constant stream of information and exhortations from the government about the importance of IT to their job, to their education, and to their quality of life. Singapore's high-rise shopping centers have floors of hardware, software, and other IT retail opportunities. School, the factory, the office, the newspaper, the television and propaganda banners are the media by which IT is infused into Singapore's society and economy. There are many IT events available to the general public and to IT professionals. One of the largest is Singapore Informatics. This IT trade exhibition has been held each December since 1986. Informatics in 1989 attracted an estimated 110,000 visitors, including 1,050 exhibitors, 70 percent of which were from overseas, from 33 countries (*IT Focus*, December 1989). A calendar of formal IT activities in Singapore, covering only the period from late May through late July 1990, lists 16 significant IT events, including the major Singapore 2000 — Global Technopolis exhibition (*IT Singapore*, May 1990). These and many other interventions, indeed, have gone a long way toward establishing an IT culture in Singapore.

Singapore elected officials have always placed high priority on investing in modern technology and infrastructure. They have learned that such improvements are essential to creating an attractive climate for foreign direct investment. They have transferred these lessons into the IT planning sector also. Below, two recent IT infrastructure accomplishments are illustrated.

Integrated Services Digital Network (ISDN)

In late 1989, Singapore became the world's first country to have a nation-wide Integrated Services Digital Network (ISDN). ISDN is an inexpensive high-speed, high-quality telecommunications network with the simultaneous capacity to carry voice, video, and data communications. All ISDN Singapore subscribers are connected to all other ISDN Singapore subscribers, and they can use various IT hardware configurations on the ISDN. Further, Singapore ISDN subscribers can connect with other ISDN subscribers overseas (e.g., Japan). All of these ISDN services are available at one-seventh of the cost of conventional, separate-purpose, redundant telephone lines (Yeo, 1989).

Teleview

The Telecommunication Authority of Singapore (Telecom) is the principal actor in Singapore responsible for keeping the city-state's IT infrastructure modern and competitive. After eight years of research and development, Telecom produced an advanced videotex system called Teleview.

Televue is an interactive, computer-stored information system with visual displays on monitors and television sets that combines the use of the telephone network to permit transactions and communications (Corey, 1990). First Deputy Prime Minister Goh Chok Tong sees Televue as a productivity tool, because it can drastically reduce the time and effort used by households and firms to pay bills, to bank, to shop, and even to communicate and participate with government. Physical travel and queues are to be reduced by using Televue in home and workplace (Goh, C. T., 1988).

New Applications in a Cashless Society

Government and local and foreign firms based in Singapore have developed numerous new uses for IT (Corey, 1990). Different means are employed to stimulate new applications. In 1990, a National IT Awards program was implemented. By recognizing innovation in IT, these awards, through example, can stimulate others to develop new IT Applications. The criteria for the awards also focus attention on Singapore's shift in policy from merely using IT to improve productivity to "the implementation of world class strategic IT applications," including the assessment of the impact of such uses (*IT Focus*, March 1990). Additionally, in March 1990, the Singapore government sponsored a seven-day National IT Application Conference, the theme of which was "IT for Better Business." Over 1,300 conferees attended. The focus of the discussions was "on how Singapore can exploit information technology to help it become a developed country by the year 2000" (*IT Focus*, March 1990).

For years, Singapore has been moving toward the goal of becoming a "cashless society." Automatic teller machines (ATM) have been ubiquitous for most of the 1980s. Experiments are underway in the use of point-of-sales (POS) systems and portable-terminal personal identification number (PIN) systems by fast-food retailers such as A&W Family Restaurants and Pizza Hut (*IT Singapore*, March 1990a; *IT Singapore*, April 1990). In 1986, the Network for Electronic Transfer (Singapore) — NETS — was initiated. NETS users purchase services and goods with ATM cards issued by Singapore's major banks. Presently, there are an estimated 1.2 million ATM card holders; most of the 840 NETS outlets are in the major department stores, petrol stations, and supermarkets. In 1989, S\$216 million in transactions were recorded. Plans are underway to extend NETS to many other small and medium-sized retailers. By 1995, there will be 5,000 outlets; they are expected to generate a transaction volume of S\$1.5 billion by that year. The NETS system permits instant debiting of the purchaser's bank account and instant crediting of the retailer's deposit account (*IT Singapore*, March 1990b). Exhibits and experiments are underway for Singapore application of "smart cards," i.e., a plastic card that contains a microprocessor; this permits intelligence to be added to PINs, and the storage of other information. One application being explored in traffic-congested Singapore is the use of the smart card in a planned Electronic Road Pricing (ERP) system. An ERP would automatically debit a vehicle's pre-paid "electronic purse" for distance or time traveled on specific roads (*IT Singapore*, May 1990).

IT's Role in Singapore's Globally Competitive Strategy

With the addition of each new tool to Singapore's IT capacity, new applications become possible, thus producing multipliers into the IT mix. For example, since the recent inauguration of Singapore's ISDN, Singapore Telecom and the Information Technology Institute are jointly developing ISDN office workstations and specific applications for users in financial and trading services. The earlier Singapore can bring IT innovations to fruition, the earlier its enterprises can begin the development of new services, products, and markets (*IT Singapore*, May 1990), and thereby its comparative advantages are strengthened.

The above IT applications cases are exemplary of the numerous innovations currently underway. Because of the diversity and great number of new IT applications being multiplied in Singapore, it is not possible here to be comprehensive and exhaustive. However, it is evident that as Singapore continues to expand its capacity and influence in the financial services sector, value will be added, costs will be reduced, and even more IT-driven functions can be added to the city-state's total capacity.

The financial and business services sector became Singapore's leading growth sector in 1989 (Ministry of Trade and Industry, 1990). This sector contributed over 29 percent to Singapore's GDP. More than 400 internationally oriented institutions are providing Singapore's financial services (*IT Singapore*, March 1990). Singapore can be expected to build further on this foundation and to strive to extend its services and markets in the Southeast Asian region.

A fundamental measure of Singapore's IT strategy is the revenue it produces. By 1988, IT revenues exceeded S\$1 billion. This was a four-fold increase over the 1982 IT industry revenues of S\$258.95 million. Another measure of IT accomplishment in trade-oriented Singapore is export. Singapore-made hardware exports in 1989 were valued at S\$8.676 billion. In the same year, Singapore imported S\$450 million in hardware (*IT Singapore*, March 1990). Yet another indicator of IT industry productivity is the extent to which computerization has occurred. The 1989 National Computer Board survey of 4,900 Singapore establishments revealed that "computer penetration has risen to 68 percent of all establishments employing ten or more people" (*IT Singapore*, May 1990b). The response rate to this study was 64 percent, or 3,139 establishments.

The government of Singapore seeks to extend increasingly sophisticated uses more deeply into most sectors of the economy. At the 1990 National IT Applications Conference, strategic IT applications were discussed in seven different sectors, including: government, wholesale and distribution, legal services, health care services, manufacturing, construction, and financial services (*IT Focus*, March 1990). Examples of existing and experimental IT industry sector systems include TradeNet, MediNet, and LawNet. Also under development is a construction industry system called BuildNet that will be designed to service the data, regulations, and permit and plan-approval needs of builders, architects, and engineers.

For example, the importance of the port function and international trade in Singapore's development has been instrumental in having IT used to enhance the efficiency of processing shipping and trade documents. TradeNet has been developed as Singapore's "nation-wide electronic data interchange (EDI) network which allows business and government users to exchange structured trade documents and information electronically." TradeNet earned the 1989 "Partners in Leadership" award of the US Society of Information Management. The principal developers of TradeNet, the Trade Development Board and the National Computer Board, were the recipients of the award (*IT Focus*, October 1989). This kind of international recognition is yet another measure of a major Singapore IT program success.

Other sectors of Singapore's economy have been impacted by IT initiatives also. The Stock Exchange of Singapore has begun the first "floorless" stock-trading system in Southeast Asia. Singapore hotels are providing guests with new, more comprehensive IT services. Singapore Airlines is a major participant in an innovative international airline reservation system (i.e., ABACUS); it is intended to significantly improve trans-Pacific travel between North America and the Pacific Rim.

Given that one of Singapore's principal development goals is to establish itself as a regional center for corporate headquarters, research and development, and other business and financial services, another significant measure of progress of the IT strategy is the quality and number of firms that establish such IT functions in Singapore (Table 14-3). During 1989 and the first half of 1990, eight major international corporations established various kinds of IT centers in Singapore. This is exemplary of the kinds of successful outcomes realized by the IT promotion initiatives of Singapore's Economic Development Board and the National Computer Board.

Entrepreneurship and Technology Transfer

One of the most effective techniques used in Singapore to promote local IT innovation has been incentives. The Small Enterprise Computerization Programme (SECP) is an example of incentive opportunity that will take on growing importance as IT uses diffuse from large corporations to small and medium-sized firms. In the case of the legal sector, the National Computer Board estimated that more than 90 percent of Singapore's law firms are eligible for SECP incentives (*IT Focus*, October 1989). Singapore construction firms may apply for benefits from the Investment Allowance Scheme of CIDB to acquire computer equipment. For many years, the Economic Development Board has used various tax incentives to attract foreign investment in Singapore's IT environment (Corey, 1990).

A major site for creativity and entrepreneurship in IT is the Singapore Science Park. The Park offers IT innovators both incentives (i.e., Research and Development Assistance Scheme) and needed infrastructure. The 125-hectare Park site near the National University of Singapore (NUS) is now full, with 50 local and foreign firms and organizations occupying the facilities. There is a waiting list of firms, and, as a consequence, more space is being added. The Park hosts incubator efforts both

Table 14-3

**Examples of Foreign IT Firms
Establishing Centers in Singapore, 1989-90**

A T & T Bell Laboratories Microelectronics Design Center

Ashton-Tate Asian Development Center

- R & D in software development

Digital Equipment Corporation

- Far East Regional Finance Center
- Network and Office Automation Competency Center

Hewlett Packard

- Asian Peripherals Division
- Asian-Pacific Personal Computer Division

McDonnell Douglas Information Systems International Limited

- Marketing and support activities in the ASEAN region

Mentor Graphics

- Pacific Rim Headquarters, including R & D

Nippon Telegraph and Telephone Corporation

Rank Xerox Corporation R & D Center

Sources: *IT Focus* and *IT Singapore*, 1989 and 1990 issues.

in IT and other technologies, as in biotechnology. The Park employs 2,000 personnel, many of whom are engaged in research and development. It is the home for many joint projects between Park firms and other Singapore research institutions (e.g., NUS). In the Science Park, Singapore has shown early success in stimulating a "spirit of entrepreneurship and innovation" (Mah, 1989).

Singapore's recent National IT Awards program does a great deal to call attention to creativity and entrepreneurship in IT. Periodical publications, such as *IT Focus* and *IT Singapore*, regularly feature successful IT firms and individuals as role models who might stimulate others to be innovative in IT development, application, and marketing. Finally, Singapore has begun to relax some regulations and reduce some tariffs. These liberalizations and deregulations also can serve to release creative new initiatives by Singapore IT planners and managers.

The Singapore National Computer Board (NCB) is the lead coordinating agency responsible for implementing the projects and programs formulated for the National IT Plan. Since the Plan was unveiled in late 1986, the NCB has coordinated many successful IT initiatives. One of the most recent such examples was the design and execution of the National IT Application Conference. The NCB organized the conference with six other Singapore government agencies, including the Construction Industry Development Board, Economic Development Board, Ministry of Health, Ministry of Law, the Telecommunication Authority of Singapore, and Trade Development Board (*IT Focus*, December 1989).

Sectoral agencies also have lead-actor roles to play in their respective industry sectors. The Telecommunication Authority of Singapore has long initiated IT infrastructure research and development, as well as program implementation and facilities maintenance and management. Recently, the Singapore Housing and Development Board (HDB) has taken IT to the construction industry. For all of HDB's new contracts, contractors with HDB are required to use personal computers in managing the project. This initiative is expected to bring cost savings, efficiencies, increased productivity, and assistance in modernizing the local construction industry (*IT Singapore*, April 1990).

As Singapore continues to develop even deeper experience in implementing the National IT Plan, both government agencies and local small and medium-size firms will be collaborating with and extending their services to IT partners overseas. Further, more sophisticated spin-offs and technology transfers will occur across different phases of service and product development. For example, NCB and NUS have entered into a partnership agreement to take "upstream" research findings from the University and have NCB's research unit, the Information Technology Institute (ITI) "... incorporate these research ideas into its midstream technology innovations and eventually transfer the technology in downstream development of commercial products and pioneering applications" (*IT Focus*, October 1989).

These cases are illustrative of the kind of inter-agency coordination and collaboration that have proven to be effective in promoting and realizing the strategies inherent in Singapore's National IT plan.

Singapore: The Information Economy

Singapore's rich history as an important international sea port and crossroads city has provided it with a base upon which to build a strong IT development strategy. Because of this background in trading, Singapore has long been a service economy. By 1980, 60.7 percent of the Singapore workforce was in the service sector (Kuo and Chen, 1985). During the early independence period, the PAP leaders sought to diversify Singapore's economy by initiating an industrial drive. This effort succeeded in developing a critical manufacturing sector; in 1989, it accounted for 29.7 percent of the GDP. This is the second-largest sector, just behind the financial and business services sector. As early as 1973, the information sector accounted for 24 percent of Singapore's GDP (Jussawalla and Cheah, 1983). From their empirical analysis, Jussawalla and Cheah concluded that Singapore is moving toward an information economy. By 1980, 34.07 percent of Singapore's workforce was classified to be in information occupations (Kuo and Chen, 1985). Based on these trends and based on a decade of achievements under the computerization initiative and National IT Plan, it is reasonable to conclude that an IT strategy represents a sound basis for planning Singapore's future development (Toh and Low, 1989).

SINGAPORE'S URBAN FORM AND ITS LINKS TO THE GLOBAL ECONOMY

Space Constraints

The relatively unrestrained space of other cities of the Pacific Rim permits those city systems, driven in part by knowledge and information forces, to spatially deconcentrate (for example, the Los Angeles region). Given Singapore's extremely constrained space resources and its island environment, planners have few land development options. Unlike other large Pacific Rim cities, Singapore's spatial pattern is one of required locational considerations, rather than a pattern of preferred locational options. As a consequence, unique land use policies and land acquisition legislation have been put in place that are flexible, give a great deal of taking power to the state, and are largely self-financing (Wang, July 1986). As a result of Singapore's scarce space resource and its generally precarious position in international economic and regional power relationships, the people have allowed the state to exercise this extraordinary power, wherein nearly all of Singapore's land is state-owned. This accounts for the unique leasehold practice discussed earlier in the real estate section. Thus, in Singapore, high-density congested life-styles are nearly the only options for most people; this applies to living environments, to working environments, and to commuting environments. Singapore Island is about 42 km. on the east-west axis and 23 km. on the north-south axis.

Singapore planners have regularly devised tactics to relieve traffic congestion (Watson and Holland, 1978). These spatial and legal constraints combine to offer limited human capital and institutional choices in developing this city's form.

Polycentric Structure Emerging in the "Ring Concept Plan"

In Chapter One of this book, Blakely and Stimson observe that "the need for global transactions become central rather than the need for local transactions." This has always been the case for Singapore. The city-state has derived its existence from trading its services and products with the outside world. In a sense, therefore, Singapore City's boundaries have been stretched and extended to global proportions.

Figures 14-2 and 14-3 show the basic elements of Singapore's urban form and structure. Despite all of Singapore's idiosyncrasies (i.e., nearly half of the Republic's land area is built up), its urban spatial structure demonstrates some fundamental similarities to other large cities of the Pacific Rim. For example, Singapore exhibits a polycentric structure. However, rather than producing a simple pattern of jobs having moved to the suburbs, as is seen in many other Pacific Rim urban regions, Singapore's workplace geographical trends are more complex. There are two principal job locations, one in the Central Area that is dominated by office and services employment, and another large job cluster in outlying Jurong in the southwestern corner of the island. More numerous and smaller light-industry employment nodes are found in a system of satellite new towns, located in a suburban ring pattern distributed around the edge of the central water catchment area of the island. The evolution and development of this "ring concept plan" (see Figure 14-3) and other physical planning milestones in Singapore were analyzed recently by Beng-Haut Chua. Since the relatively large Central Area (see Figure 14-2) is the primary home of Singapore's future-growth office-based financial services and other IT services, it is instructive to understand something of its internal form:

. . . the Central Area can be divided into three distinct areas each with its own identities: the area of hotels and shopping activities, namely [the] Orchard Road area; the banking and finance district of the Golden Shoe; and finally, the north bank of the Singapore River, an area of government and civic buildings. To these, one must add the new lands [reclaimed from the sea], as an additional area (Chua, 1989).

Residential geography in Singapore, to some extent, is similar to the largely suburban pattern found in many other large Pacific Rim metropolitan areas. The outlying satellite new towns noted above, and other closer-in high-rise housing estates, shelter a large proportion of Singapore's population, 87 percent of which is housed in Housing and Development Board (HDB) flats located in these satellite new towns and housing estates. Three-quarters of the population own their homes, due largely to Singapore's unique payroll savings scheme, the Central Provident Fund (CPF).

Figure 14-2

Singapore: Central Area

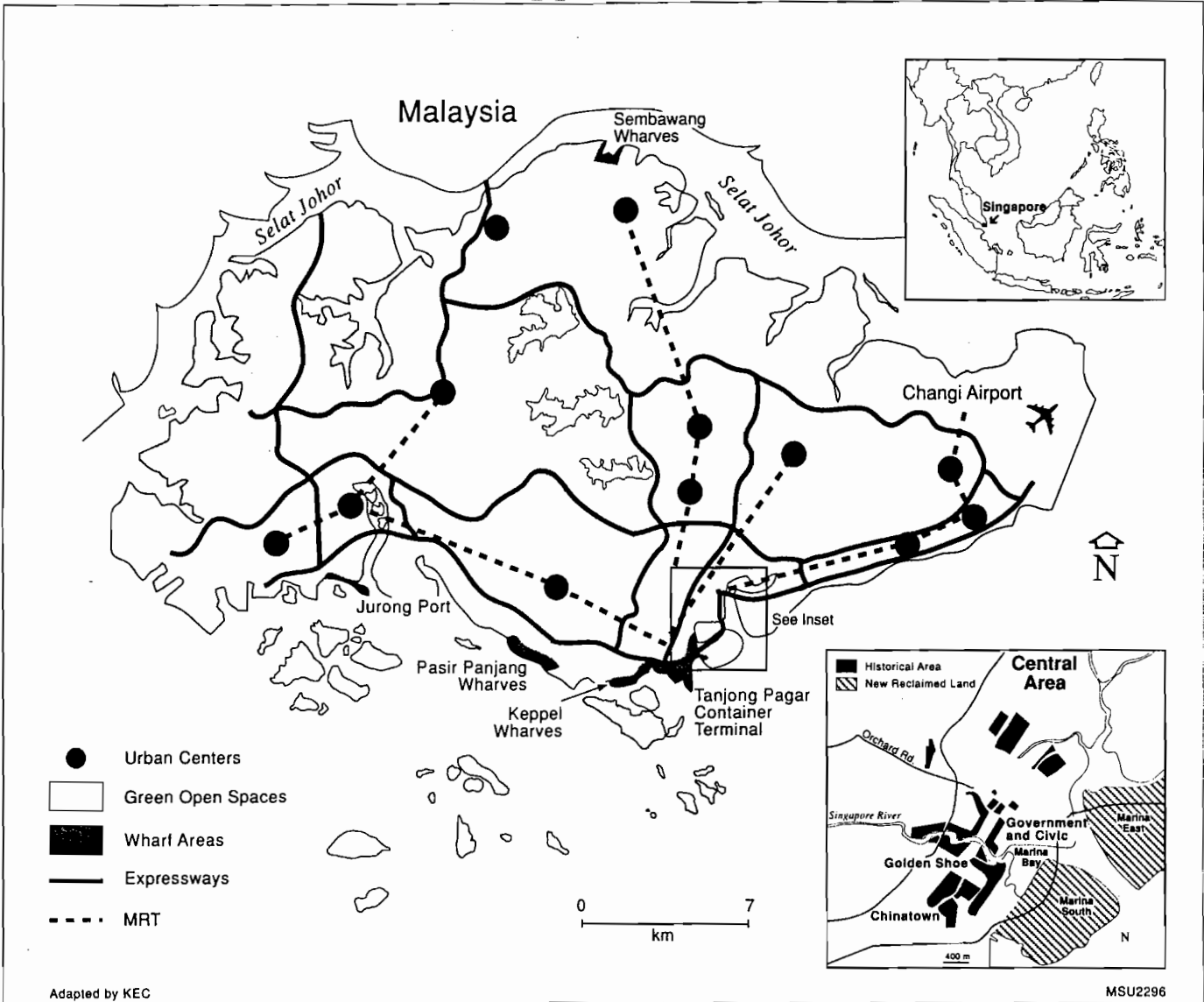
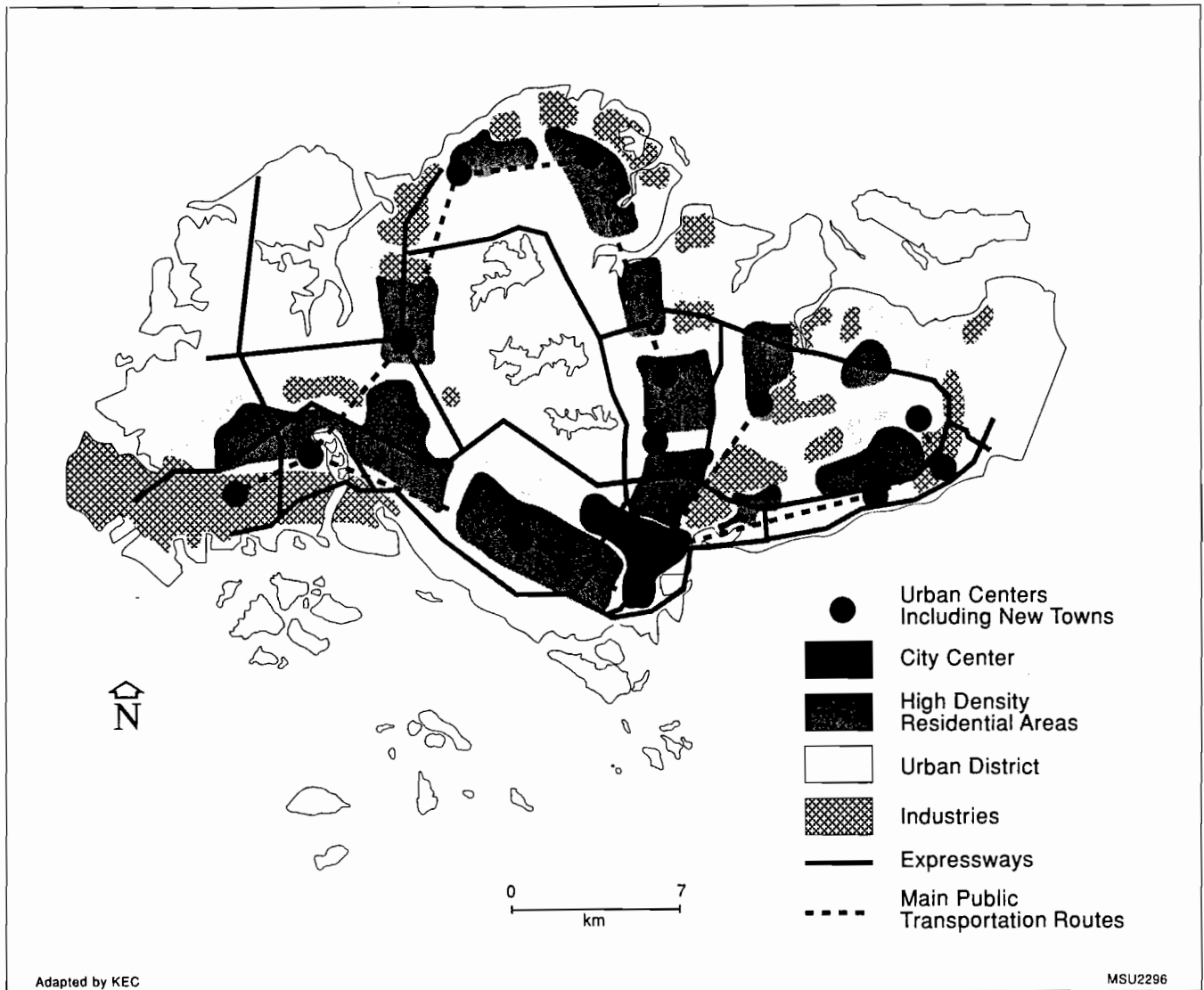


Figure 14-3
Ring Concept Plan



"Clean and Green"

Singapore is a city famous for being "clean and green." The island is endowed further with other largely planned and human-induced natural-environmental amenities. Despite the high-rise, high-density environments of much of the built-up areas— the central catchment area and the coastal areas —all represent planned open space and visual amenities that enrich the Singaporean quality of life. After many years of clearing and destroying much of the city's old historic neighborhoods (e.g., Chinatown), recent tourist promotion needs have stimulated official concern for the conservation and creative re-use of many remaining shophouses and their districts.

Mass Transit

One of the benefits of Singapore's small size is the relative proximity of commuting to home, to shopping, to education, and to recreation. Intra-city transportation networks are excellent; they include public transit, in the form of a modern, recently opened S\$5-billion Mass Rapid Transit (MRT) system complemented by ubiquitous, convenient bus services. Private automobile ownership, however, increased by nearly 7 percent from 1988 to 1989. Currently, there are 93 km. of expressways; when the planned expressway system is completed, the length will be 141 km. The urban system of tiny Singapore indeed has common interconnections that tie together all of its major components. Given its early investments in communications and IT infrastructure, Singapore seems ideally positioned to operationalize the "smart city" concept introduced earlier in Chapter One.

International Linkage Factors

Propelled by Singapore's goal to be a total business center and base for regional corporate headquarters and other information functions, the city-state is well connected and thoroughly integrated into the global and Pacific Rim economic and communications networks. Again, following from its seaport and trading roots, Singapore is heavily internationally oriented. This is reinforced and strengthened by the connectivity afforded by such international linkage activities and institutions as: (1) the world-class Singapore Changi Airport, offering award-winning services for passengers, air cargo, and sea-air intermodal connections; (2) Singapore Airlines; (3) the modern facilities of the Port of Singapore; (4) the award-winning Port of Singapore Authority (PSA); (5) six international telecommunications submarine cables connecting Singapore to ASEAN (Association of Southeast Asian Nations), to Western Europe via the Middle East, to Taiwan and Hong Kong, and to Australia via Indonesia; (6) satellite links to 50 countries; (7) leased circuits for high-speed voice and digital data communications; (8) Integrated Services Digital Network (ISDN), presently linking Japan with Singapore; and (9) a contemporary international telephone network that includes international direct dialing services to over 160 countries (Information Division, 1989).

Other major components of Singapore's international connectivity include the travel, tourism, and hospitality sectors. Changi Airport serviced 12.5 million passengers in 1988. Visitor arrivals to Singapore reached 4.19 million in 1988. Singapore now has nearly 25,000 hotel rooms; many of these are in first-class hotels, and Singapore's convention business and events continue to grow (Information Division, 1989).

While small in scale, Singapore's urban form is both dynamic and complex. Because of its commitment to planning experimentation and its manageable size, Singapore presents the world with a dynamic laboratory for empirical urban development and evaluation research into the emergent processes of the information-age: spatial structure (c.f. Kumar, 1989), urbanization, and connectivities (c.f. Langdale, 1989; Castells, 1989). Selected post-industrial urban theories and locational hypotheses might be tested from the Singapore experience. Indeed, based on its history of urban program innovation, the government of Singapore promotes the export of urban development consultancy services by its own planning experts; this is yet another example of Singapore extending its accomplishments into the external world.

The comprehensive port of Singapore will continue to serve as the wellspring for the city-state's links to the modern world. Using information-technology, other technologies, and the constant improvement of services and infrastructure, Singapore will continue to seek to maintain comparative advantages and niches in regional and worldwide connectivity. For the first five months of 1990, Singapore became the busiest container port in the world; in order to develop additional port growth, tariff revisions, rebates, and other financial incentives are being explored (*Singapore Bulletin*, August 1990).

Continual conceptual innovation and services enhancement have made Singapore a one-stop shipping and distribution center. Its comprehensive approach to port services includes the interdependencies of warehousing, cargo handling, oil refining, shipbuilding and provisioning, and special services to oil tankers and their unique requirements. The Port of Singapore Authority operates five port terminals (see Figure 14-2). These are the Tanjong Container Terminal, Keppel Wharves, Pasir Panjang Wharves, Jurong Port, and Sembawang Wharves. These terminals are computerized and highly mechanized to efficiently service the wide range of ships calling in at the Port of Singapore. In addition to fast cargo-handling, within-Singapore connections are offered. Singapore has created cost-effective and speedy sea-air cargo linkages. Collateral innovations include: bonding and financial services; attention to port safety and security; training of port personnel; free-trade zones; and information-technology applications, such as TradeNet and Databox for trade and shipping information, respectively. Singapore even operates its own international shipping line: Neptune Orient Lines. Functioning in planned synergy, this combination of innovation in transport and communications services, infrastructure, organization, and information technology contributed 1.1 percent of Singapore's total 1989 growth rate of 9.4 percent (Ministry of Trade and Industry, 1990).

FUTURE CHALLENGES FOR SINGAPORE

From the foregoing, it might be concluded that Singapore is an ideal city, both from the perspective that it has solved most of its earlier development problems, and because Singapore might represent a kind of information-age urban planning model for others to emulate. Such a conclusion should not be reached quickly and simply.

Current demographic issues of declining fertility and an increasingly aging population are being discussed by the political leaders (Goh, C. T., February 15, 1988) and planners of Singapore (Planning Department, 1985). Although it is commendable and impressive to see the extent to which Singapore's IT strategy already has shown increases in productivity and creativity, Singapore's chronic labor shortage in some occupational sectors is not likely to be resolved simply by the mere substitution of technology for human resources. With an increasingly educated and more affluent population of younger, potentially mobile professionals, how much longer should the PAP use top-down approaches as its principal style of governance? Will the new generation of leaders be able to successfully steer the Republic through the transition to the post-Lee Kuan Yew era? As the world experiences more "democracy movements," and increased ethnic and communal fragmentation and aspirations, what are the implications for a new set of Singaporean leaders and the future of this planned new city of the Pacific Rim?

In terms of the two transcendent motifs of this essay, (1) space and land, as illustrated in Singapore's approach to foreign real estate investments; and (2) location and connectivity, as manifested in the city-state's information technology strategy, Singapore needs to solve a number of new issues that have emerged as a direct result of its past development planning successes.

Space and Land Challenges

With three-quarters of the population living in cramped, high-density, public-housing flats (which they mostly own), what are the next residential development options that should be pursued? As HDB estates experience more community participation and decentralized management, what are the likely results (c.f. Siddique, 1989)? Will these kinds of experiments in greater self-governance have significant, nationwide spin-offs for the PAP and the public bureaucracy? The Republic's delicate natural and historical environments need increasing protection and conservation as the city's population approaches three million, and as age and the needs of development expansion further imperil historic districts and buildings. The Singapore populations of the 1990s and early 21st century are more likely to define "quality of life" in less fundamental and survival terms than their parents; what might be done now to engender a new, more exciting, cultural environment for the emergent information-age Singaporean? Despite all the disincentives for automobile ownership and usage, actual trends in the opposite direction are in direct conflict with already high levels of

Central Area traffic congestion and the island's extremely limited space. How might this continuing planning challenge be met?

Location and Connectivity Challenges

As Singapore gets even deeper into, and more dependent on, its IT strategy and the inherent openness and individual experimentation that often comes with handling information, how does this jibe with recent state practices of show trials and banning of prominent news publications that originate from outside the Republic (Sussman, 1990)? Might this begin to affect the way potential outside investors view doing business in Singapore?

As other newly industrializing economies of the Pacific Rim become more directly economically competitive, what are Singapore's future development niches and options beyond the National IT Plan? As Singaporeans become more mobile through education, and more questioning through new exposures to the world outside of Singapore, how might emigration be muted and addressed creatively? What are the implications for Singapore as Hong Kong, the other major city-state in the region, becomes part of China in 1997? The above listing of questions and challenges was not intended to be comprehensive. Rather, it was meant to suggest that even amid Singapore's admirable development successes and its culture of rational planning and management, challenges and opportunities are constantly offered. For Singapore's new generation of leaders, continual innovation and the formulation of new strategies are necessary to meet the new problems.

LESSONS FROM THE SINGAPORE MODEL

Singapore has been a laboratory for the intensive practice of public planning and management, like no other city on the Pacific Rim. Because of its successes, others may seek to replicate its development planning experience. However, Singapore's truly unique conditions have exempted it from such traditional planning and management problems as rural-urban interdependencies and primate city-secondary city linkages (Goldblum, 1989). Practically, Singapore's substantive needs and solutions are different, and therefore are not directly transferable to other cities and countries.

However, much is to be learned by systematic comparative analyses toward the end of deriving outcome lessons rather than process lessons. Simply, planners of another metropolis may desire to attain Singapore's standard of living, but these other planners may want to avoid the top-down, low citizen participation approaches that have characterized much of Singapore's development.

Some of the kinds of lessons that might appropriately be learned from Singapore and reconstructed elsewhere, with tailoring, include:

- (1) the pulling together of different peoples to build a workable competitive community
- (2) working hard and being disciplined to go beyond survival and to prosper

- (3) reliance on human ingenuity when natural resources are scarce
- (4) perfecting innovation and creativity, to develop and capitalize on international comparative advantages
- (5) preparing for the uncertainties of the future, by investing in productive infra-structure and by providing incentives for others to invest in your development.

These exemplify the generic lessons that should have useful application to the planning of other Pacific Rim cities.

Based on a recent comparative analysis of the information sector in Singapore, Japan, and the United States, Toh and Low have observed that information technologies require two-way, "relatively comparable sophistication and development between sender and receiver" (Toh and Low, 1989). They conclude that IT strategies engender cooperation rather than competition. In the end, this may be the most important lesson, both for Singapore's future and for the futures of other Pacific Rim cities in this information age.

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CHAPTER 15

BANGKOK: JEWEL IN THAILAND'S CROWN

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BANGKOK THE PRIMARY CITY

Metropolitan Bangkok has long been 'the' city of Thailand, and in many ways it was and in fact still is Thailand.

While Thailand is predominantly a rural society with only 20 percent of its 60 million population living in urban centers, Bangkok is a truly primary city. Population growth in urban areas has been estimated at about 5.3 percent per annum, which is 2 to 2.5 times the national rate. Greatly increased migration to urban centers, and in particular to Bangkok, means that by the end of the century Bangkok will have become one of Asia's megacities. Already its population is over 9 million.

Bangkok has been the capital of Thailand since 1767. In 1782 the city's founder, King Chakri (Rama I), moved the capital for strategic reasons from Thonburi on the western side of the Chao Phraya River to its present site on the eastern side of a large loop in the river. This site provided access to the sea and water to build a system of canals (klongs) which became Bangkok's principal means of transportation and drainage.

In the 1850s, Bangkok had grown to 400,000 in population. The city had become an important commercial center and the point of contact with the West. Thereafter, the city continued to expand along the transport routes radiating from the city center. By 1950, its population topped 1 million. As the headquarters of the Southeast Asia Treaty Organization (SEATO) and through its role as a supply base during the war in IndoChina, Bangkok's infrastructure received substantial boosting through external funds. By 1970, the city had emerged not only as Thailand's principal center of trade and industry, but also as a hub of East Asian air traffic (Sivaramakrishnan & Green, 1986: 93).

Today Bangkok is the home of over half of Thailand's urban population; it accounts for over 10 percent of the nation's total population, contributes over one-third of the GDP, and has over 20,000 industrial firms. It is the country's main port, transportation hub, and commercial and financial center. It houses the regional headquarters of several international agencies and multi-

national companies. It is the nation's principal educational and cultural center (over 60 percent of all secondary schools and 85 percent of all higher educational institutions are in Bangkok). It is also the center of concentration of national government activities.

Rapid Growth

Metropolitan Bangkok is described as a relatively compact urbanized area covering about 350 square kilometers. The topography is flat, much of the city is built on flood-prone land, and land subsidence is widespread. Over 1,000 square kilometers of land within and adjoining the city is settling at a rate of 100 millimeters a year.

There is a highly intermixed commercial and industrial core of about 60 square kilometers on the east bank of the Chao Phraya River. The metro area was extended in 1972 to cover the changwats of Pha Nakhorn and Thonburi, and it continues to grow faster than other urban areas. Green belts covering agricultural land 12 kilometers wide along the eastern and western flanks of the built-up areas of the metropolis were specified in 1981, prohibiting any building more than 100 meters from either side of existing roads (Tanphiphat, 1982: 6). Until the late 1970s, much of the development of Bangkok was relatively low-density for an Asian city, characterized by shop-houses and residential buildings that rarely exceeded five levels in height. But the last decade has witnessed a building boom of high rise buildings—offices, condominium projects often with over 500 units, and mixed commercial/retail/residential developments. Also, the metropolis has continued to grow unchecked as urban development has pushed further out in attempts to keep pace with the ever-increasing demand for housing, during a period when the Thai economy has boomed. Now Bangkok has expanded to the northeast and the east into surrounding municipalities, and urban growth is occurring on the east bank of the river. The general layout of Bangkok is shown in Figure 15-1.

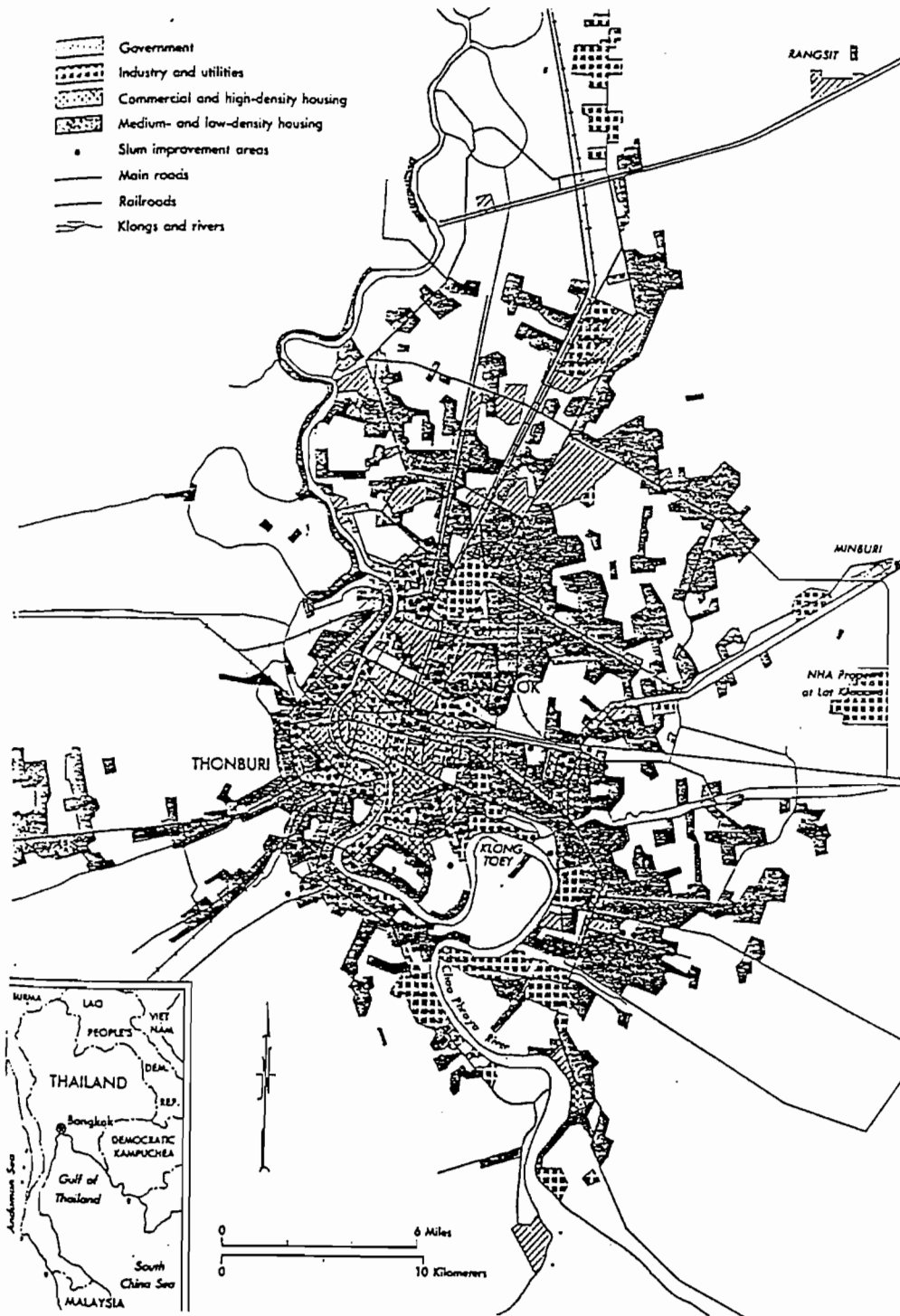
About half Bangkok's phenomenal population growth since 1960 has been due to natural increase; 5 to 10 percent was due to annexation of new areas, with the balance due to net migration. Bangkok is the principal destination for migrants in the country. But there is also a significant return flow from Bangkok to the provinces. The in-migrants are age-, sex-, education-, and occupation-selective. Males have predominated, but in the last decade more females are moving to the capital. They tend to be better educated—more enter white collar occupations—but they also contribute significantly to unemployment in the city.

An Emerging World City

This chapter tells of the role Bangkok plays as Thailand's rapidly emerging world city and as the center of agglomeration of urban activities that has driven much of the economic miracle of Thailand's development over the past two decades. It discusses Bangkok's role as a major regional

Figure 15-1

Metropolitan Bangkok's General Urban Form



center in Southeast and East Asia, and the rapid transition the city has made in becoming locked into the processes of internationalization that have characterized the recent development of so many cities of the Pacific Rim. The chapter also discusses the challenges Bangkok faces over the coming years in maintaining a capacity to overcome the many deficiencies of an institutional nature and in its infrastructure in order to cope with its ever-increasing urban population.

THAILAND'S ECONOMIC MIRACLE: ASIA'S NEXT NIC?

Thailand is a remarkably successful nation, and is widely acknowledged as likely to be the next Asian newly industrialized country (NIC). Writing in *Fortune* magazine in 1988, Louis Krear said of Thailand:

more politically stable than many of its Southeast Asian neighbors, it has become a magnet for foreign investment, both from the US and Japan. The Thais are exceptionally unified by a popular monarchy and Buddhism. An unbroken history of independence has left the Thais free of colonial hang-ups. Perhaps for that reason, Thailand has managed to make the most of the entrepreneurial vigor of its ethnic Chinese by treating them as Thais, not aliens or second-class citizens.

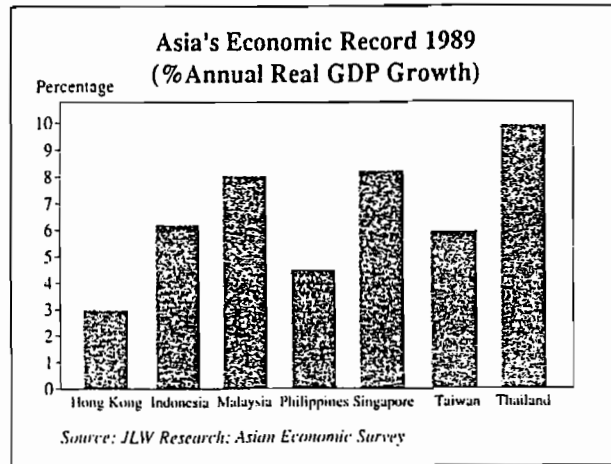
Thailand's economic expansion has been rapid during the last two decades. The distinct possibility that Thailand could become Asia's next NIC (newly industrialized country) arose in 1985, when manufacturing overtook agriculture as the major foreign exchange earner. Bangkok and the Central Region can be considered to be an NIC surrounded by an LDC (Less Developed Country), because the per capita income in Bangkok is much higher than the national average and because this is where much of the economic activity and investment is located. Expansion of the Thai economy has been driven by tourism and exports, whose value doubled in real terms in the 1980s.

By the end of the 1980s, Thailand's economic expansion had created buoyant construction, investment, export, tourism, and industrial production sectors in addition to its traditional agricultural production sector, which continued to expand. It had experienced a boom in the banking and finance industry, including a large inflow of capital in the form of direct investment, loans and portfolio investment. It had shored up liquidity, and its external position was stable, despite a trade deficit.

In the early 1990s Thailand is arguably Asia's fastest emerging economy, as shown in Figure 15-2, fuelled by a surge of foreign investment which has transformed the country into a frenetic base of industrial activity (Jones Lang Wootton, 1990: 36). Growth in GDP averaged 5.3 percent between 1982 and 1986, and was 7.1 percent in 1987. For 1988 and 1989 it reached 11 percent and 10 percent respectively. Forecasts for the 1990s put the GDP growth rate at between 7 and 8 percent per annum.

Figure 15-2

**Thailand's Economic Performance Relative to Other Asian Countries:
Percent Annual Real GDP Growth**



Urbanization, Industrialization, and Cheap Labor

Writing in the *Straits Times* in 1988, Murray Seeger noted how:

the surge of industrial investment into Thailand has begun to spawn the numerous smaller, specialised parts and component makers needed to underpin its drive to become Asia's next NIC. Within a short time, the country is likely to have a far broader and deeper light manufacturing sector than seemed possible a few years ago. Numerous small investors, both local and foreign, are opening plants, making parts and components to feed the booming export-oriented toy, textile, electronics and other industries. Thailand's general business environment and its labour supply make it one of the most popular targets for cheap parts manufacturing.

Thailand had become an attractive haven for foreign investment, particularly from Japan and the NICs, whose appreciating currencies were forcing them to move up-market or to move their production bases overseas, leaving a gap for countries like Thailand to fill. Thailand's manufactured goods have increasingly been able to replace those of the NICs in world outlets. Their growth has also been stimulated by a rapidly expanding domestic market for consumer goods.

In addition to the more traditional manufacturing goods like processed agricultural products, Thailand's export-oriented manufacturing industries included textiles and garments, gems and jewellery, and electronics components. By the late 1980s Thailand also had emerged as a producer of new products, including computers and parts, motors, and mechanical appliances.

National Economic Development Planning

As has been the case in most of the NICs, and as is the case in the rapidly emerging potential new NICs in the ASEAN group of nations, central governments have played an active role in national economic and social development and planning. Often, metropolitan urban development is an integral component of such plans.

In Thailand, the Royal Thai Government's National Economic and Social Development Board (NESDB) plays a primary role in long-term planning for the development of the nation. A series of five-year plans was initiated in the 1960s. But it was not until the Fourth National Economic and Social Development Plan (1977-81) that urbanization and concerns over interregional equity in Thailand were seriously addressed. It led to support by some authorities for promoting regional cities through a national urbanization strategy. This led to the Regional Cities Program, which initially proposed the accelerated development of nine provincial cities in the 100,000 to 300,000 population-size class, but the actual program was cut to five cities. The Plan also proposed the development of self-sufficient satellite towns in the Bangkok region. An industrial estate 35 km east of Bangkok at Lat Krabeng was commenced. Nava Nakorn was begun as a new town 50 km to the north. The National Housing Authority proposed another new town at Bang Phli 40 km to the southeast. Some urban analysts at the time expressed concerns that the satellite towns policy, while helping alleviate pressures on the central city of Bangkok in the short term, would result

nonetheless in the continuation of ribbon development along the main transportation links because of the lack of planning and mechanisms to implement land use controls, eventually resulting in the satellites losing their separate identities within a single, congested conurbation (Sivaramakrishnan & Green, 1986: 115). This has largely transpired to be the case.

The Fifth National Economic and Social Development Plan (1982-86) gave considerable attention to the rapid expansion of state enterprises and to industrial sectoral policy. The overall emphasis of the Sixth Plan (1987-91) was to increase efficiency and quality of economic activities to improve international competitiveness. This implied an increased role for the private sector in developing production and marketing services, and it includes private sector investment in the expansion of basic services. It also focused on the supporting industries and engineering sectors.

The Sixth Plan aimed for a 5 percent annual GDP growth rate and the creation of an additional 3.9 million jobs. The growth rate in the agricultural sector was expected to be 2.9 percent per annum, with a growth rate of 6.6 percent per annum in the manufacturing sector, target rates of growth that have been surpassed in actuality. Investment incentives in the Sixth Plan also encouraged high levels of foreign investment into the manufacturing sector, stimulated by cheap labor and political stability (despite the recent military coup leading to a change of government). The Plan also sought to accelerate export expansion and to lead to decentralization of economic growth to rural areas and the provincial cities to help alleviate pressures on infrastructure in Bangkok.

Industrial Estates Program

A considerable emphasis has been placed in the National Plans on the development of the manufacturing sector in Thailand to achieve a more diversified industrial base, to replace imports, and to develop export production. As part of the process of developing a manufacturing sector in Thailand, the government set up the Industrial Estate Authority of Thailand (IEAT) in 1972 to cater to the need of local and foreign investors who clamored for suitable locations with complete infrastructure to locate their manufacturing operations. This program has played a significant part in the development of Bangkok and some of the provincial cities. The IEAT's role is to find suitable sites for industrial estates or related developments; to prepare all necessary infrastructure on chosen sites; to rent out or sell properties; to engage in business activities directly involved with the estates; to promote and provide guidelines for privately run industrial estates; and to enter joint ventures with the private sector involved in business or manufacturing operations in estates.

Manufacturers locating their operations in industrial estates are granted several privileges, such as one-stop services at the IEAT for all necessary documentation; the right of foreign investors to own land in industrial estates; access to in-place utilities and other infrastructure; and the availability of Customs Officers at all estates. IEAT has set up and operates five major industrial estates—

Bangna, Lat Krabang, Bang Poo, Bang Phli, and Northern (Lamphun). Others are being constructed at Map Ta Phut, Map Ta Phut Deep Sea Port, and Laem Chabang Export Processing Zone.

Basic industries have received considerable emphasis. Most steel is imported to Thailand. Eight furnace-equipped steel mills have been built to produce a capacity of 700,000 tons per year, and 40 rerolling steel mills had a combined capacity of 600,000 in 1988. The 1970s and 1980s saw a rapid expansion in the number of foundries and gear-cutting plants. About 300 factories produce moulds, with a small number beginning to export tools and dies to China, Indonesia, Taiwan, and Australia. Components and parts used in motor vehicles and other machinery are now exported. About 100 companies produce standardized parts, such as springs and wire fuses. Over 50 factories press parts for motor vehicles, motorcycles, furniture, construction equipment, farm equipment, and machinery components. Plants have also started in heat treatment, as well as stamping, traditional galvanizing, and plating.

More recently, Technology Parks are seen as vehicles for economic development in Thailand. The Ministry of Science, Technology, and Energy in 1990 instituted a study through the Asian Institute of Technology and Thammasat University to map out a national plan for five extra science and technology parks in the Rangsit District on 40,000 square meters of public land to be leased to the private sector, with US\$20 million to be invested by the government in infrastructure.

The private sector has also been active in the development of industrial estate projects in Thailand, most of which involve enormous investment in land and infrastructure and are mainly located in the Bangkok, Central, and Eastern seaboard regions.

Employment Distribution and Human Resource Development

In 1989, the labor force of Thailand was estimated at 29 million, and it was growing at 3 percent annually. The official unemployment level was 800,000 and rising. The bulk of the labor force remains farmers, fishermen, hunters, loggers, and related workers (64.5 percent); with 11.6 percent in the craftsmen, production, process workers, and laborers category, and 10.1 percent classified as sales workers. Within the manufacturing sector, employment is concentrated in food, beverages, and tobacco (19.3 percent), garments and footwear (15.8 percent), wood products (13.7 percent), machinery and transport equipment (13.1 percent), and textile products (9.1 percent).

Increasing the skill level of the labor force has been an important component of the National Plans, and as a result considerable resources have been invested in the higher education sector. Thailand has 29 universities and colleges, most concentrated in Bangkok, including representation of the Wharton School and the Kellogg School. The prestigious Asian Institute of Technology, located on the outskirts of Bangkok, is a major regional facility. Large numbers of Thais study at the post-graduate level in universities in the USA, UK, Europe, and Australia.

Foreign Investment

Most countries in Southeast and East Asia have imposed restrictions on the extent of foreign investment and levels of foreign ownership in the primary, secondary and tertiary sectors of production and real estate investment, with the exception of open markets like Hong Kong.

The regulatory frameworks vary between countries. In nations such as Thailand, Indonesia, and Malaysia, foreigners are unable to hold majority interests as individuals or through corporate vehicles in the medium to long term. But these countries offer significant financial incentives for investment, in the form of import duty concessions and tax holdings, to encourage the establishment of non-commodity export-oriented industries. Blanket currency controls have been removed throughout the countries of the region, but diluted laws exist in Thailand, Taiwan, the Philippines, and Malaysia. Restrictions on the amount of local currency to be borrowed by foreigners is also common throughout the region.

In Thailand, the government's Board of Investment encourages foreign and domestic investment, especially in sectors and locations most appropriate for Thailand's economic development. Promoted projects are granted tax incentives that may include exemption from, or a 50 percent reduction of, import duties and business tax on machinery; reduction of import duties and business taxes up to 90 percent on imported raw materials as components; exemption from corporate income taxes from three to eight years; exemption of up to five years on withholding tax on goodwill, royalties, or fee remitted abroad; and exclusion from taxable income of dividends derived from promoted enterprises during income tax holidays. There are also a range of additional incentives for enterprises in the Investment Promotion Zones and for Export Enterprises.

Foreign ownership of Thai property is prohibited except for a maximum of up to 40 percent of total units in any condominium development. But up to 100 percent is permitted on leases of up to 30 years. Usually, taxation on foreign investors is at the rate of 30 to 35 percent for company tax. There is a dividend withholding tax, and capital gains tax on real estate is included in gross income.

By the early 1980s, Bangkok had joined Singapore and Hong Kong, as had Kuala Lumpur, with their large overseas Chinese communities, to "become a genre of world cities where circuits of capital are not geographically restricted; giving rise to what was a rapidly changing economic order around the Pacific Rim" (Goldberg, 1984). Overseas Chinese investment in real estate in and across cities in the region became a momentous phenomenon, and Thailand certainly became a major recipient of foreign direct investment. Later in the 1980s, Japanese capital assumed a dominant role in the development of property and industries in cities such as Bangkok.

As is the case throughout the nations of Southeast Asia, the willingness or ability of governments to invest in their infrastructure in the short term is a significant determinant of their attractiveness to international investors. Many of these nations have experienced expansion of their economies that has been so rapid that infrastructure deficiencies are inevitable. Thailand is a case

in point. Its ports and roads are congested, causing distribution problems; and Bangkok as a city is badly affected. It is the view of many commentators that these deficiencies could be deleterious for future attraction of foreign capital at the levels that typified the 1980s.

Pacific Rim Links Dominate Trade

Over the last decade or so, Thailand's export trade composition changed from a situation where, in 1980, 60 percent was in agricultural and mining products, to a situation in 1985 where over 55 percent of exports was in manufactured goods, while agricultural exports had declined to 34 percent. By 1989, garments were Thailand's foremost foreign exchange earner in the traded goods sector, followed by rice, tapioca, gems and jewelry, rubber, integrated circuits, canned seafood, fabrics, sugar, and shoes. The fastest growing areas were cloth, leather, plastic, travel goods, and toys, whose real level of exports had tripled annually. Tourism had grown to be the single biggest earner of foreign exchange.

The pattern of Thailand's trade shows a dominant orientation to the Pacific Rim region. Figure 15-3 shows the top ten export and import markets in 1989 for Thailand; and Figure 15-4 shows the pattern of growth in export trade for 1988 and 1989. The fastest growing export markets are the USA, Japan, and Singapore, closely followed by the Netherlands, West Germany, the UK, Hong Kong, China, and Malaysia. Imports were predominantly from Japan and the USA, followed by Singapore, West Germany, Taiwan, China, and the UK.

Factors Underlying Thailand's Likely Further Rapid Development

An insight into the economic success being enjoyed by Thailand is gleaned from a 1988 report in *Newsweek*, where the Deputy Secretary-General of the NESDB, Phisit Pakkasem, is reported as saying: "we don't want to get stuck with one agricultural or industrial product. We must continually look for new products, new markets, and search out more non-tariff items."

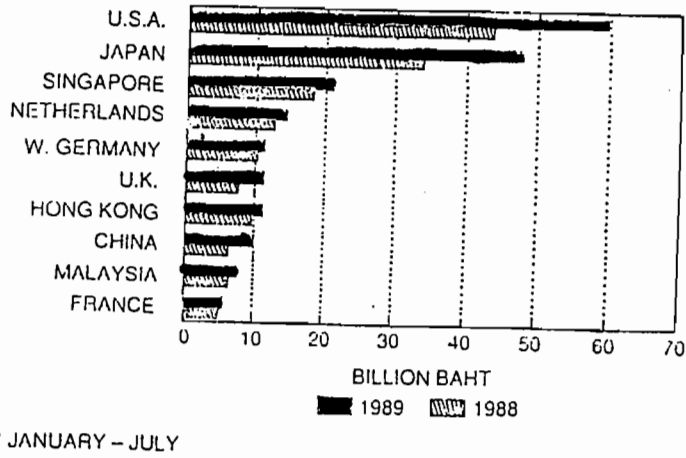
According to a report in *The Economist* (1988):

Thailand is doing well because it is following the Buddhist precept of 'majhima patipada', the middle path, avoiding extremes A policy of caution has spared Thailand from unwise enterprises it could not afford It has had some luck, as well as being a good housekeeper.

A number of factors have been identified as responsible for the phenomenal record of economic growth and development experienced by Thailand in the 1980s and as likely to underpin the projected further high levels of expansion in the 1990s. The Thai economy is resilient and dynamic, with favorable export performance and increasing fiscal stability. It is diversifying and thus is likely to adapt quickly and favorably to international economic fluctuations and to what some see as a possible trend towards increasing protectionism in the global economy. Thailand

Figure 15-3

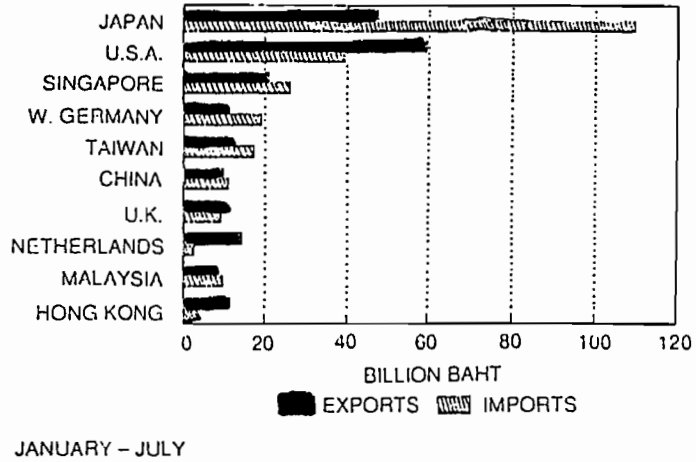
Growth in Thailand's Export Trade by Company, 1988 and 1989



Sources: Department of Business Economics, Ministry of Commerce.

Figure 15-4

Thailand's Top Ten Export and Import Markets, 1989



Sources: Department of Business Economics, Ministry of Commerce.

has abundant and diversified natural resources; a large and growing cost-competitive labor force; extremely high literacy rates (over 90 percent); and a growing domestic market (55 plus million) with increasing purchasing power, as GDP per capita topped US\$1,000 in 1989. Thailand's infrastructure is becoming more extensive, despite the major deficiencies in Bangkok's water, road, port, and public transport system; and, in Asian terms, the nation has an advanced road, rail, and air network. It has long had a favorable attitude towards the private sector as the main engine of growth.

BANGKOK AS AN EMERGING REGIONAL ASIA-PACIFIC CITY

Bangkok has for some decades been regarded as a significant center where Asian regional headquarter activities for international agencies are concentrated. Bowring (1987) notes how "diplomats and UN organizations have long regarded Bangkok as the epicenter of Southeast Asia." However, it is only recently that it has started to gain attention as a potential regional commercial center. Traditionally, Bangkok has been overwhelmed and overshadowed by Singapore and Hong Kong, due in part to its proximity to those leading 'little tigers' and free trade city-states. But Bangkok is starting to gain status in the eyes of overseas Chinese. According to Bowring (1987):

in the old days, Sino-Thai money went from Bangkok to Hong Kong. Nowadays Hong Kong is seen to be a bigger political risk and Singapore to suffer from too many rules and a scarcity of investment. Secondly Thailand is attractive because Sino-Thais are relatively integrated into the society. Bangkok has the capacity to take away from Singapore and Hong Kong relatively sophisticated business such as printing, which requires skilled labour, top-class machinery, good telecommunication links and simple procedures for duty-free importing of components.

The 1980s was a remarkable boom period in the development of Bangkok's commercial office, retail, and general property sector in general, as well as its growth as the manufacturing center of the country. This growth was on top of, and even greater than, that of the 1970s which set the basis for Bangkok's emergence as a city inextricably linked to other megacities and centers of commerce in the world, and in particular in the Pacific Rim region.

Commercial Office Boom

Within the Southeast and East Asian region, the growth of two-way trade, the development of the tertiary sector, and the increasing complexity of processes of globalization as played out in the Pacific Rim region have improved the prospects of the property markets of the region's cities. In the 1980s, cities like Singapore, Kuala Lumpur, Jakarta, Taipei, Hong Kong, and Bangkok were beneficiaries to different degrees, given their different property opportunities, traditional characteristics, growth rates, and political stability.

The construction industry in Thailand grew rapidly during the 1980s, often at annual rates in excess of 15 percent. By 1989, the total volume of commercial office space in Bangkok had reached 1.02 million square meters, with annual absorption having increased progressively from 66,492 sq.m. in 1982 to over 100,000 sq.m. in 1985 and 1986. Rising prices and shortages of construction materials, a shortage of skilled workers, and escalating land prices resulted in occupancy rates averaging 97 percent in 1989.

Figure 15-5 shows that the Bangkok office market construction activity has been cyclical. A substantial actual and forecast new supply has emerged after the 1987-88 downturn. The construction industry in Bangkok and elsewhere is forecasted to continue to grow, despite the constant increases in material costs brought about partly by the government ban on logging. But, as noted in a report by Jones Lang Wootton (1990a: 37), future supply forecasts in Bangkok have been notoriously inaccurate, particularly with the construction industry at full capacity in the early 1990s.

The highest concentration of office buildings in Bangkok is the area bounded by Surawong/Rama IV/Sathorn Road, where about half the total space is located. Other smaller concentrations are the Wireless Road/Phloenchit Road/Phetburi Road area, the Sukhumvit/Asoke area, and the Phaholyothin corridor. The distribution of new office supply is likely to be about 46 percent in the Sukhumvit/Asoke/Dindaeng Road area, 27 percent in the Surawong/Rama IV/ Sathorn Roads area, and 13 percent along the Phaholyothin/Vibhavadi/Rangsit corridor. In 1992 alone, 35 new office buildings are targeted for completion. Office space rents in 1990 ranged from US\$1,362 to 2,335 psm for freehold tenure and about US\$661 psm for leasehold tenure of 30 years. Gross rentals range between US\$13.6 to 21.4 psm per month. In 1989, rents increased 50 percent on average, and Jones Lang Wootton (1990a) predicts that this level of increase will continue until sufficient supply meets demand, which could occur by early 1992.

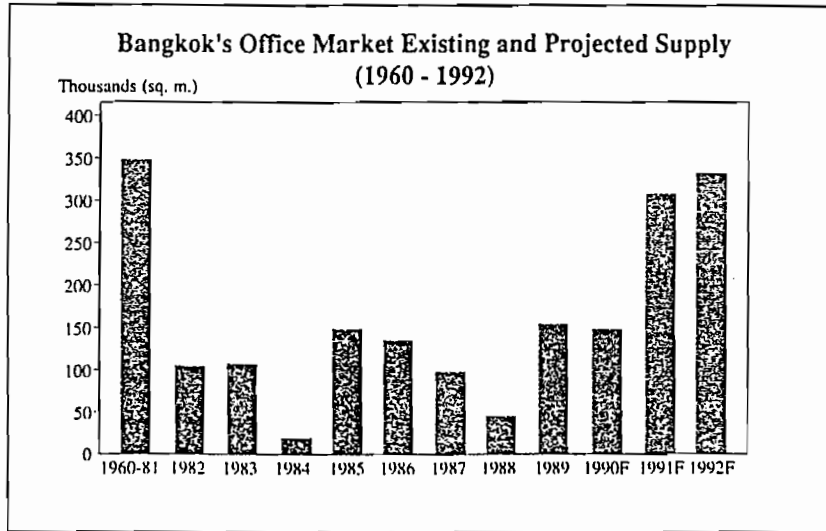
Retail Expansion

Bangkok is one of the cheapest and best shopping cities in Asia. A veritable transformation occurred in the retail scene of Bangkok between 1984 to 1990. There was a shift away from the traditional shop-houses to modern, purpose-built shopping complexes. The change in the pattern of retailing was clearly brought about by the emergence of both local and foreign department stores (Jones Lang Wootton, 1990a: 37).

In 1990, the existing stock of modern retail space in Bangkok was just over 500,000 sq.m. The prime retail area is considered to be bounded by Phloenchit/Rama I/Rajdamri Roads, which has the highest concentration of retail stores. An additional 408,971 sq.m. in the form of 27 new redevelopments will be added by 1992. The Ratchadapisek/Asoke/Din Daeng areas will make up about one-third of the projected supply, but the prime retail area of Phloenchit/Rajdamri Road will

Figure 15-5

Bangkok's Office Market, Existing and Projected Supply, 1960-1992



Source: Jones Lang Wootton, 1990a.

continue to be the busiest retail area with 30 percent of the projected supply, coming mainly from the World Trade Center projects.

Jones Lang Wootton (1990a: 38) reports that in 1990 average prime retail space in Bangkok on the first floor level commands about US\$2,5309 to 4,670 psm, and that prime retail space had been committed at gross rentals of between US\$27.25 to 58.37 psm per month.

The outlook for the Bangkok retail sector is favorable for the early 1990s, especially given the increasing level of consumer spending as a result of high-level economic performance and a high growth rate of visitor arrivals in Bangkok.

Transport and Telecommunications Infrastructure: Linking Bangkok to the World

Transportation and communications in particular is crucial to the economic development of Thailand and the emergence of Bangkok as a 'world city' in the Pacific Rim region. Apart from Singapore, Bangkok's transportation infrastructure is one of the best in the ASEAN countries, with a wide-reaching road network and a reliable rail system, both of which radiate from Bangkok. Within the city, however, there continue to be great disparities in the modern rail system, even though work has begun on a metro system.

The Bangkok International Airport, managed by the Airports Authority of Thailand (AAT), underwent a major reconstruction and upgrading in the mid-1980s to become a major Asian hub, being served by over 50 international airlines. The airport underwent extensive renovations and expansion in preparation for the 'Visit Thailand Year' in 1987. The redevelopment has provided a terminal area of 225,000 square meters, to handle 3,340 incoming and 4,270 outgoing passengers every hour during peaks. About 60 destinations in Europe, the USA, Asia, the Middle East, Australia, and New Zealand are linked directly to Bangkok. It has extensive air cargo facilities that can handle 400,000 tons of air cargo annually, and Bangkok is now able to compete with Singapore as a regional air cargo hub. Further major infrastructure projects are underway or planned around the Thai capital that will improve road links from the airport to the city center and the new port facilities. In addition to Bangkok, there are other international airports at Chiang Mai, in the north, and at Hat Yai, in the south.

To meet the new demand for air travel, the region's airlines have expanded at a phenomenal pace. JAL, Cathay Pacific, Korean, Singapore Airlines, ANA, and Thai are now all within the world's top 15 airlines in terms of operational profits (as identified by the Orient Airlines Association), and are all expanding.

Thailand's major port facility is Klong Toey Port in Bangkok, with a capacity to handle over five million metric tons of cargo per year. Other deep-sea ports are east of Bangkok at Sattahip, the latest port at Leom Chabang, and in the south at Songkhla and Phuket. Bangkok's port is limited by

lack of access to large vessels, which must off-load on Sichang Island off the Chonburi Coast. Port facilities are unable to cope with the demands for handling 800,000 containers a year (capacity 650,000 in 1989), hence the importance of the deep sea port at Sattahip, 200 km from Bangkok, and the Laem Chabang eastern seaboard deep sea port.

Telecommunications are provided by two government agencies. The Telephone Organization of Thailand (TOT) is responsible for the nation's domestic telephone network and its international trunk telephone service to its neighbors, Malaysia and Laos. The Communications Authority of Thailand (TAT) is responsible for international telephone services to all other countries via satellite and submarine cable systems, and postal services. Automatic calling services are available to over 30 countries. Telecommunications services include FAX, telex, telegraph, radio pager, leased circuit, and numerous data transmission services, and mobile and radio phones. New telephone line installations are increasing by over one million annually. Following its launch in July 1986, the mobile telephone network service extends throughout Bangkok and surrounding provinces up to the Eastern Seaboard area, and by 1992 it is expected that a further 45 base stations will be constructed.

TOURISM: A CATALYST FOR GROWTH

Tourism has been the biggest revenue earner for Thailand since 1981, with revenues exceeding US\$4 billion. By 1988, it generated a total of US\$3,069 million, which is 34 percent higher than the next largest export earner, rice exports, and higher than earnings from exports of textile products.

The 1980s witnessed a travel boom throughout the Pacific Rim region, which had a profound impact on regional property markets. Inbound air travel to Asia-Pacific cities, including Australia and New Zealand, reached about 30 million in 1988, and had increased by 17 percent over the previous year. About 65 percent of this came from within the region, compared with 50 percent at the start of the decade. Outbound traffic topped 19 million in 1988, an increase of 22 percent over the previous year. An additional 70 percent was for travel within the region. Thailand certainly captured its fair share and more of this travel boom, as shown in Figure 15-6. By 1989, visitor arrivals were 5 million; the growth rate was 21 percent. Thailand had emerged as the region's most populous tourist destination. Now Bangkok, Hong Kong, and Singapore form the major hubs for air traffic.

Bangkok's Hotel Boom

The regional hotel market is, of course, at the center of the Pacific Rim travel boom. Bangkok's hotel occupancy rates have been among the highest in the cities of the region (90 percent in 1989, compared to 85 percent in Singapore and Jakarta and 78 percent in Hong Kong). Table 15-1 sets out the average room rates for leading hotels in a selection of cities in December 1989, and Bangkok was up among the top of the list.

Figure 15-6

Visitor Arrivals to Thailand and Other Asian Countries, 1988-1989

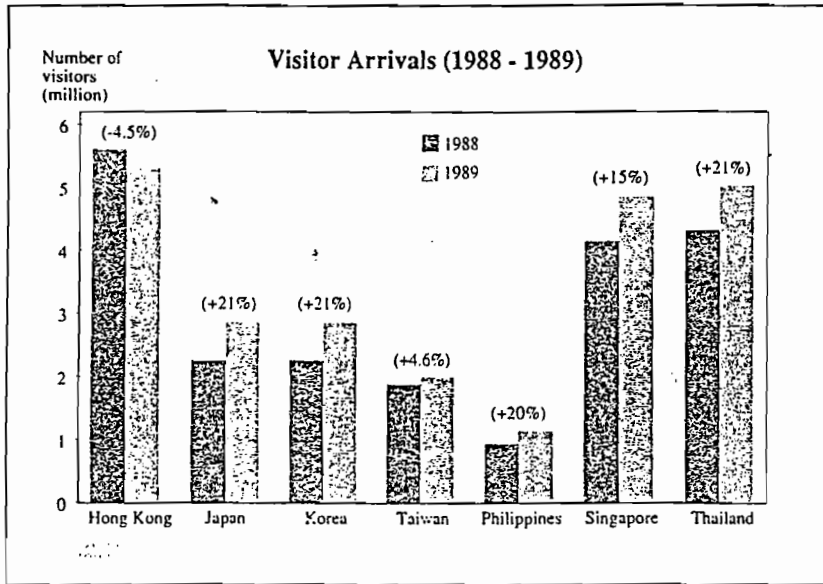


Table 15-1

Leading Hotel Average Room Rates, Selected Asian Cities, 1989

<u>City</u>	<u>US\$</u>
Hong Kong	US\$200
Taipei	US\$170
Bangkok	US\$170
Seoul	US\$150
Singapore	US\$130
Manila	US\$100
Kuala Lumpur	US\$95
Jakarta	US90

Source: Jones Lang Wootton, 1990a

Associated with the growth in tourism to Thailand, between 1981 and 1989 the number of hotel rooms in Bangkok more than doubled from 11,927 to 24,100 at an average annual growth rate of 9.5 percent. Projections were that the number of hotel rooms would increase to 28,200 in 1990, to 29,100 rooms by the end of 1991, and by a further 4,000 rooms in 1992 (Jones Lang Wootton, 1990a: 38).

The magnitude of foreign investment in the tourism sector through first-class hotels in Bangkok (and Thailand in general) is indicated in Table 15-2, which shows details of nine of the Board of Investment-approved projects in 1990.

Tourism Policy

The success of 'Visit Thailand Year' in 1987 is symptomatic of the well-orchestrated and successful campaigns regional governments have implemented to encourage tourism, involving national tourism boards, airlines, and local associations.

In 1992, with national campaigns having been coordinated in Thailand, Hong Kong, the Philippines, Malaysia, and Indonesia between 1987 and 1991, there is a culmination of promotions with the launch of 'Visit Asia Year' by these countries.

Towards the end of 1989, the Thai government intervened to try to prevent further deterioration in the supply and price hike problems evident in the tourism sector. The Board of Investment resumed promotional privileges for major hotels in Bangkok, a move which many hoteliers say will lead to an excess supply of rooms and cut-throat price discounting in the 1990s, reminiscent of the mid-1980s. Over 10,000 additional first-class hotel rooms are likely to come onto the Bangkok market in 1992.

Future Trends

The expansion of financial centers and the generally buoyant economic activities in the region will ensure that cities like Bangkok will continue to experience an increase in demand for the prestigious hotels. But industry projections have highlighted that even greater expansion is likely to be for the low-profile lower-cost hotels, and Thailand should be a major beneficiary in this market.

The tourism industry predicts that tourist markets will undergo gradual but fundamental change, both local and international. The trend for foreign tourists travelling long-haul routes to Thailand may gradually decrease due to the increase in package tour prices as well as the slowdown in the world economy. The 1990 problems of accommodation shortages, rising prices in Thailand, and an increase in the incidence of breaches in room contracts, especially in Bangkok from 1988 to 1990, could encourage foreign tour companies to send their clients elsewhere. Tourist numbers from Europe are expected to decline, while the USA market is expected to grow as a result of expansion in Pacific air networks. South and East Asian arrivals are expected to make up 55 percent of

Table 15-2**Board of Investment-Approved Major Hotel Projects: Foreign Investment, 1990**

<u>Location</u>	<u>Capacity (Rooms)</u>	<u>Investment (Million Baht)</u>	<u>Ownership</u>
Klong San District	400	2,450	Thai —60% Hong Kong —40%
Huai Khwang District	665	1,050	Thai —60% American —40%
Pra Khanong District	640	1,266	Thai —60% Swedish, Australian —40%
Huai Khwang District	404	499.86	Thai —100%
Huai Khwang District	400	1,327.5	Thai —100%
Phaya Thai District	660	2,239	Thai —60% Singapore, HK —40%
Pra Khanong District	408	800	Thai —100%
Dusit District	480	1,386	Thai —60% US, UK, Japan —40%
Bang Khen District	616	1,050	Thai 100%

Source: Board of Investment, Thailand, as reported in *JLW Asia, Property Events in Asia*, October 1990.

total foreign visitors, with the main origins being Japan, South Korea, Taiwan, Hong Kong, Singapore, and Malaysia. Short-haul Asian visitor growth will likely be the main impetus of tourism growth as the economies of the Asia-Pacific region expand.

Domestic tourists will also continue to be an increasingly important component for the Thai tourism industry as the country develops and incomes increase.

A 1990 Jones Lang Wootton property report on Asian countries and cities noted that:

Given the popularity of Thailand as a tourist destination and the economic/political stability of the country, prospects for the hotel industry in Bangkok and in resorts looks most encouraging. 1989 occupancy levels at approximately 90 percent could prevail at the top-end of the market despite significant additions to stock. Should the forecasted supply materialise, greater competition will ensure that such fundamentals as location and quality of management will be reassessed (Jones Lang Wootton, 1990a: 38).

The Downside of Tourism

While it is true that tourism makes quick money and generates jobs and income for many people, it has left a trail of damage, including unchecked high-rise development in once beautiful coastal environments, pollution of coastlands, waste disposal problems, a sex industry with its associated serious and deadly infliction of the AIDS disease, and forced relocation of some local settlements.

Somewhat reluctantly, the Tourism Authority of Thailand (TAT) moved in the late 1980s towards a recognition that the tourist boom had brought with it many strains. Better planning is needed, but red tape and vested interests remain formidable obstacles. But it has been recognized that Thailand was and still is ill-equipped to handle the rapid increase in the number of both local and foreign tourists on environmental, social, and medical grounds. The Tourism Authority of Thailand responded in late 1989 to its many critics with a decision to move away from the 'numbers game' and shift its strategy toward solving specific problems which have arisen because of uncontrolled tourism growth and lack of planning.

"There is considerable concern about whether we are ready to meet the demand," the TAT Governor was quoted as saying. "Things like carrying capacity studies, conservation, maintaining destination standards, manpower training, all these are issues that have to be addressed quickly or developing countries like ourselves very soon will lose the quality and any changes of preserving some of our most precious tourism assets" (Asian Business Press Group, 1989). The Authority sought the establishment of a ministerial committee, headed by the Prime Minister or Deputy Prime Minister, to supervise tourism development. Some 18 laws will need amending and at least 11 government agencies need restructuring for the problems to be readily tackled. Grassroots participation is envisaged through the establishment of local tourism councils to act as watchdogs.

Symptomatic of the downside problems facing Thailand's tourism industry and its management has been the uncontrolled growth of Pattaya, the popular coastal resort not far from Bangkok. Since 1975, development has changed Pattaya's earlier image as an idyllic tropical seaside town into a bustling, urbanized honky-tonk entertainment hub unrivalled in Asia, producing a large-scale Pat Pong environment. Now Pattaya faces substantial and critical problems that could easily undermine its future prosperity as a tourist resort.

BANGKOK'S IMPENDING CRISES

The relatively recent incidence of urban growth, its magnitude since 1970, and its accelerating pace raises fundamental questions and imminent crises to be addressed as high priorities. Chief among these are institutional efficiency, resource mobilization, transport, housing, and shelter.

The paradox that Bangkok represents as a rapidly expanding city at the heart of the growing body of Thailand's economy, and what Doebele (1987) claims is a miracle that the city works at all, is aptly outlined by Yeung (1988: 169-170) in an overview of the great cities of East Asia:

[A]lthough Bangkok is endearingly named the City of Angels, its citizens have to fight daily battles with horrendous traffic jams, a polluted environment, and poor housing. Traffic jams in Bangkok are arguably among the worst in Asia. During peak hours cars can run at 12 kilometers per hour and buses at 9. It has been estimated that costs of traffic congestion were 30 million baht per day in 1978. It was also estimated (in 1981) that if congestion could be reduced by half, savings on gasoline alone could amount to at least 750 billion baht a year Water and noise pollution are also serious, while waste disposal is no less easy for a city of (in 1980) almost 5 million. Existing facilities can handle half of the waste About 25 percent of the population lives in squatter settlements, the biggest of which is Klong Toey. Moreover, in 1982 the National Housing Authority identified 410 slum areas involving 551,000 inhabitants — 12 percent of the total population Planning controls in Thailand are very weak, so that the Bangkok City Planning Department can only advise rather than implement. It takes an individual act of Parliament to obtain land for a specific public purpose. Consequently, development in Bangkok is practically free from any planning intervention, but is guided by the alignment of public infrastructure, land values, and private initiative. The resultant pattern of land uses is highly mixed, lacking definable areas of special activities. Related to this style of planning is the increasing monopolisation of the land market by real estate developers and professional land speculators Most serious of all, Bangkok is a sinking city of its own making . . . [through] the excessive use of deep artesian wells The introduction of multi-story buildings of heavy construction also contributes to this land subsidence threat. Because Bangkok is virtually at sea level, the smallest rate of sinking could result in catastrophe.

Pollution and Congestion Reign Supreme

In the mid-1980s, over one-third of the population of Bangkok still had no access to public water and had to obtain water from vendors and other unsafe sources. The public water supply system based on the Chao Phraya River is being expanded, but maintenance and water theft have been serious problems because of inadequate tariffs and inefficient dues collection (Sivarama-

krishnan & Green, 1986: 100). There is no central sewerage system, and human waste disposal is mainly through septic tanks and cesspools, with effluents discharged into stormwater drains and klongs. This inadequacy of sewerage management, the high water table, and periodic flooding make water pollution a major health hazard.

Space devoted to roads in Bangkok's inner core is less than 10 percent, and the road network consists of only a few main roads with a limited number of connecting links. Until the mid-1980s, there were no limited access freeways in the city, but the government had begun to embark on a program of toll road construction linking the airport to the central city, the port, and the west bank of the River. But the inner core road network remains a "discontinuous jumble of single lanes" (Sivaramakrishnan & Green, 1986: 100). Traffic congestion is getting worse as motor vehicles registrations increase at a rate of over 8 percent a year. Congestion is so great that it is almost impossible to distinguish a discernible peak hour. Heavy vehicle traffic is a major problem which has resulted in truck curfews during business hours for traffic from the provinces entering metropolitan Bangkok.

Problems of traffic congestion, air pollution, and inadequate public transport in Bangkok pose possibly the greatest impending crisis for the city. Bangkok's transport problems and needs highlight specific institutional issues.

Metropolitan Administration

Metropolitan administration of Bangkok is a topic central to understanding the nature of why the city has developed in the unplanned and, some would claim, chaotic way it has. It also highlights the organizational and institutional deficiencies of the system in coping with the challenges of managing an emerging 'megacity'.

The Bangkok Metropolitan Administration (BMA) was formed in 1972 through a merger of Bangkok and Thonburi municipalities. It is the largest local authority in Thailand and is responsible for a large number of urban functions. Its affairs are closely supervised by the Ministry of Interior (MOI) and its agencies. But, unlike the situation in major cities in many other Asian nations, in Thailand state enterprises share the responsibility for several urban functions. Chief among these are the Electricity and Water Authorities, the National Housing Authority, the Expressway and Rapid Transit Authority. The MOI provides public works, police services, and town planning services; Education, Health, and Communications ministries also influence urban development. Thus, while the BMA is an autonomous metropolitan city government, it is responsible for a limited range of functions. A Secretary of State handles the BMA budget, while the BMA governor is an elected post, responsible to the Ministry of Interior. Four Deputy Governors look after a group of departments, while four Under Secretaries of State in the Ministry of Interior have similar functional roles. The result is a fragmented decision-making structure.

There is heavy reliance on annual grants and subsidies from the central government, which discourages multi-year planning and program budgeting. Increasingly, the NESDB has adopted a coordinating role in which urban management, especially in Bangkok and for the national Regional Cities Program, is linked to national economic development planning through Thailand's five-year national plans.

Institutional Capacities and Deficiencies

For Bangkok, improved institutional capacity and capability is an imperative for the city to cope with the rapid rate of metropolitan growth and expansion; for providing urban services and infrastructure; and to deal with the unprecedented crises the metropolis faces in the form of flooding, pollution, land subsidence caused by groundwater extraction, and traffic congestion.

An important public policy issue is for the state enterprises servicing Bangkok to adopt tariff policies which will lead to full cost recovery from beneficiaries and for local governments, including the BMA, to meet the costs of programs to the fullest extent from their own resources. Financial reserves of municipalities are weak. Municipal taxes and fees have not kept pace with growth of expenditures, and the resulting drain on actual government budgets and the increasing lag between demand for and supply of urban services and facilities makes institutional reform a high priority. Municipalities have been restricted basically to four revenue areas—house rent tax, land development tax, signpost tax, and animal slaughter tax—and can apply surcharges of up to 10 percent on certain national taxes, such as business tax, non-alcoholic beverage tax, gambling tax, and entertainment tax. There is a 2 percent transfer tax on property sales and a ½ percent stamp duty. The limited financial resources of the BMA are a major deficiency for effective and efficient urban management and provision of services and facilities, particularly in view of the dominance of Bangkok in the Thai economy. Major issues in the 1980s related to the replacement of the land development and house and rent tax with a property tax; the potential to switch to a dual-based system, whereby land would be assessed according to estimated market value and improvements (using factorized floor area); and the creation of a central valuation authority. Also, advances were made in improving the relationship between spatial and financial planning and budget processes in the BMA.

However, reform of the BMA has continued to be pretty much a perennial topic. The lack of a metropolitan-wide government authority with comprehensive responsibilities for urban planning, development, service delivery, and facility provision continues to be a deficiency in Bangkok.

Lack of Planning

Attempts to formulate long-term plans for the development of Bangkok date back to 1960, when the Greater Bangkok Plan projected a population of 4.5 million by 1990—a projection that, like so many for Asian cities, proved to be a substantial underestimate. The Plan was revised in

1969 and 1971 by the City Planning Division of Bangkok Municipality and the Department of Town and Country Planning in the Ministry of Interior, but without much consultation between the two bodies, and neither revised plan came close to implementation. The 1976 Town Planning Act gave the BMA planning control powers, once a local or special plan had been approved; but in reality little enforcement of planning controls was exercised, and where they were they tended to be for very limited areas of the city and were restricted to private construction. Central government public agencies follow plans only if they are consistent with their own intentions, and rarely has there been proper coordination between and among the multitude of public agencies that play a role in the development of Bangkok and the provision of services and facilities.

Land Tenure System

Countries like Thailand and Indonesia have developed their own property legal tenure system different from that in the colonial countries such as Hong Kong, Singapore and Malaysia (British), and the Philippines (USA legal framework). But in Thailand land ownership and registration is relatively straightforward. The Thai system is a mixture of the Torrens Title and the traditional system of tenure. Certainly the regulations governing foreign investment in Thailand has permitted it to participate in the processes of globalization of capital, which has played such an important role in influencing property markets and investment in various sectors of the economies of nations and their cities that are discussed in this volume.

The main land-related problem in urban areas was the condition of urban cadastres, which were incomplete, out of date, damaged, or too small in scale for practical purposes. The lack of an accurate record of landholdings has been an impediment to the formulation of sound development programs, for their implementation, and for providing an effective means of property tax collection. With World Bank and other aid agencies funding, the national government initiated, in the mid-1980s, a 20-year program to improve the national cadastres and the information base to enable faster, more efficient, and sounder public investment, and to improve the security of tenure and related private access to credit and investment.

LAND AND HOUSING MARKETS: AFFORDABLE HOUSING AND URBAN DEVELOPMENT FORM

Mayo, Malpezzi & Gross (1986) have stressed how an efficient land market operation is essential to maximize the potential delivery of affordable housing. Land markets require an ample supply of land for residential development. They need to be free of bottlenecks and constraints that slow the delivery of residential lots to housebuilders or households. Infrastructure must continually be made available; competition is needed in the market; and an ample supply of finance capital to support residential construction and to fund long-term mortgages for buyers is required

in order to ensure that there will be minimal land speculation, and that housing prices will be held down to actual costs plus a reasonable profit to developers.

The Bangkok metropolitan region gained between 150,000 and 200,000 people a year during the late 1980s. Average household size is 4 to 5 people, suggesting that 30,000 to 50,000 dwelling units are needed per year to meet the level of population growth. "Add this to the demand for housing by overcrowded households and the need to replace old and dilapidated units, and the annual demand is likely to exceed 75,000 units per year" (Dowall, 1990: 2). This represents a formidable challenge. A review of the performance of the Bangkok land and housing development markets over the last decade or two shows, however, that the capacity of the system that has evolved is probably up to meeting this task.

The Spatial Pattern of Land Development

In the late 1950s, residential land developers developed and sold plots to individuals. There was no housing developing industry per se. This changed by the 1970s, as both public and private sector roles became formalized in a comprehensive housing producer industry.

The pace of land development in Bangkok has been nothing short of phenomenal. Dowall (1989, 1990) has estimated that, between 1974 and 1988, a total of 396,000 hectares of rural land was converted to urban use. Table 15-3 shows how this was distributed in terms of distance zones from the city center, and how the proportion of the total area that makes up the greater Bangkok urbanized metropolis rose from 13 percent in 1974 to 30 percent in 1988. Between 1974 and 1984, most urban development took place within 11 and 20 kilometers from the city center, and about 40 percent of all land converted to urban use was in this zone. But little land was converted to urban use in the inner urban area. Between 1984 and 1988, most land development took place on the fringe of the region, with 45 percent of land conversion being beyond 30 km from the city center, as cost pressures pushed residential developers to the fringe areas in search of low-cost land for housing estate development. The land available between 11 and 20 km from the city center was no longer affordable for building single-family residences. Figures 15-7 and 15-8 illustrate the pattern of urban growth and development that occurred in Bangkok and the land that was urbanized at the beginning and end of this 1974 to 1988 period.

Residential development takes up about 50 percent of land converted to urban development in Bangkok. Table 15-4 shows how Bangkok's housing stock grew rapidly between 1974 and 1988, increasing by 730,000 dwelling units to reach 1,315,000 units, a growth rate of 7.1 percent. Developer-built housing accounted for one-quarter of the stock increase from 1974 to 1984 annually, but between 1984 and 1985, developer-built production increased by 138 percent to account for almost 50 percent of the new housing stock. A significant factor was that the production of the traditional shophouses plummeted as excessive inventory was sold off. Smaller-scale or indepen-

Table 15-3

Urban Land Use 1974, 1984, 1988, Bangkok Metropolitan Area
by Distance From City Center, in Rai

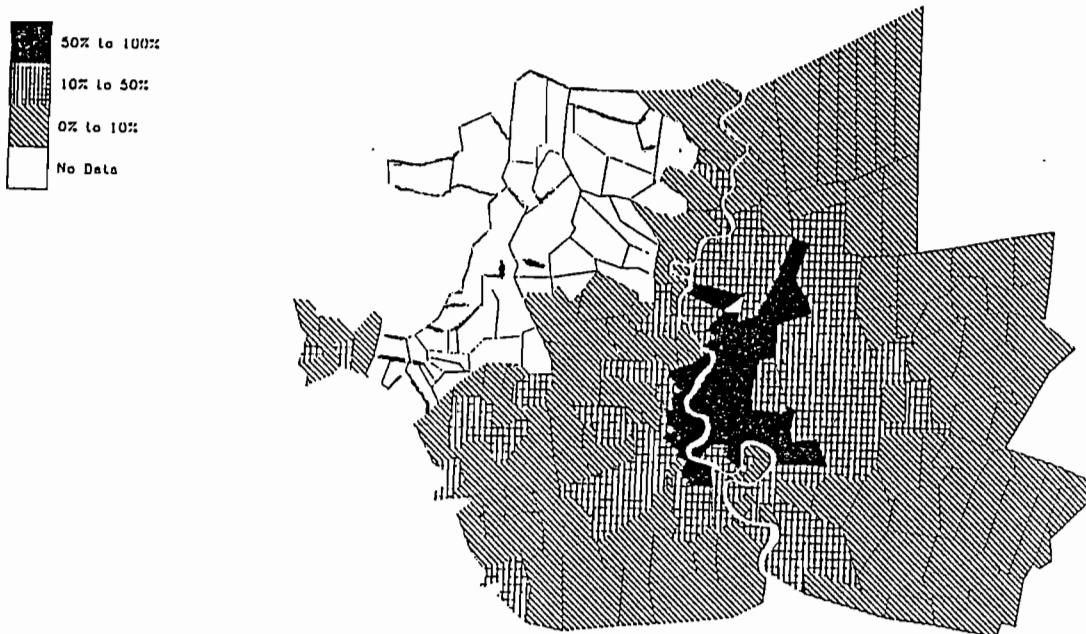
Distance from city center, km	Total Land Area	1974	1984	1984	Percent of land area in urban use		
		Urban	Urban	Urban	%		
		Land Use	Land Use	Land Use	<u>1974</u>	<u>1984</u>	<u>1988</u>
0-5	63,019	52,150	57,906	57,925	82.8	91.9	91.9
6-10	114,988	41,006	59,613	69,031	35.7	51.8	60.0
11-20	594,125	126,150	221,913	269,088	21.2	37.4	45.3
21-30	548,538	44,394	84,619	128,675	8.1	15.4	23.5
over 30	960,638	27,781	79,106	162,781	2.9	2.9	16.9
TOTAL *	2,281,300	291,481	503,156	687,500	12.8	22.1	30.1

* Totals may not add due to rounding.

Source: Dowall, 1990.

Figure 15-7

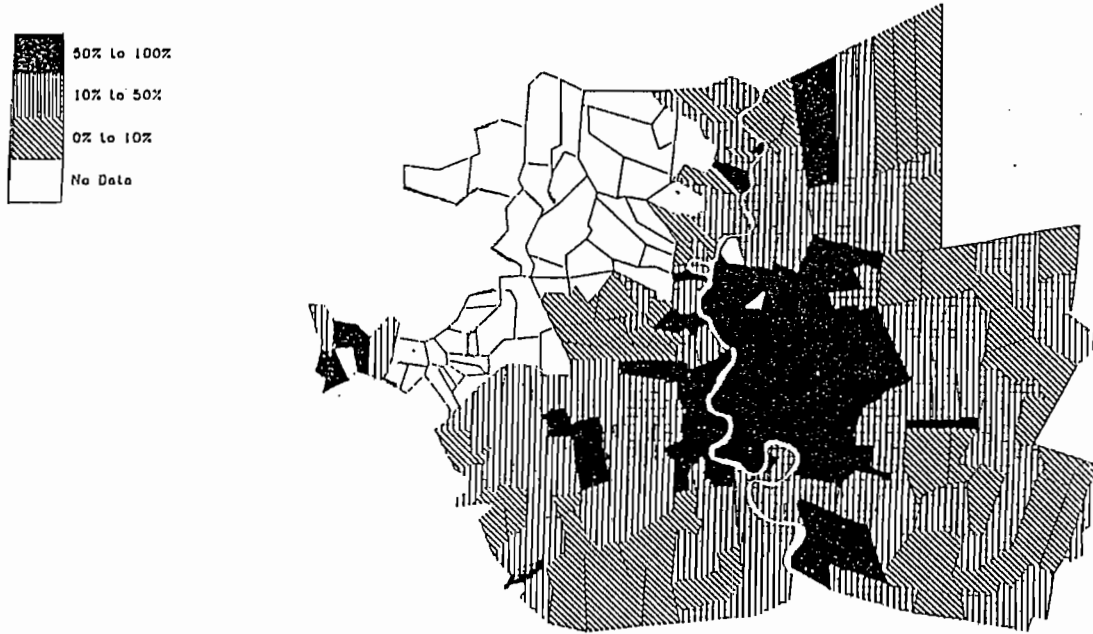
Percent of Urbanized Land in Bangkok, 1974



Source: Dowall, 1990.

Figure 15-8

Percent of Urbanized Land in Bangkok, 1988



Source: Dowall, 1990.

Table 15-4

**Housing Stock in Metropolitan Bangkok 1974, 1984, and 1988,
by Type of Housing**

<u>Type of Housing</u>	<u>1974</u>	<u>1984</u>	<u>1988</u>	<u>Absolute Increase 1984-88</u>	<u>Share of 1984-88 Increase %</u>	<u>Annual Compound Increase 1984-88 %</u>
Large-Scale						
Developer-Built	20,193	113,755	*270,800	157,045	49.6	24.2
Shophouses	134,766	247,552	257,266	9,714	3.1	1.0
Small-Scale/						
Independently-Built	262,345	363,323	479,995	116,672	36.9	7.2
Slum Housing	139,326	160,145	170,638	10,493	3.3	1.6
Public Housing	28,533	74,708	85,000	10,292	3.3	3.3
Other Housing	NA	38,951	**51,323	12,372	3.9	7.1
TOTAL	585,163	998,436	***1,315,022	316,586	100	7.1

Source: Dowall, 1990.

dently built housing expanded strongly, between 1984 and 1988, at an annual rate of 7.2 percent. It was also significant that slum housing continued to decline in relative importance as a housing supplier, despite signs of substantial slum eviction and demolition activity. Between 1984 and 1988, slum housing declined by about 11,000 housing units in the zone within 10 km of the city center (Dowall, 1990: 12-13).

A significant new trend in the 1984-88 period was the larger proportionate increase in housing construction, in both the core and the fringe areas of Bangkok, within the 11- to 20-kilometer zone accounting for 40 percent of total production. Also, the density of private developer land and housing projects increased sharply over the 1970s and 1980s, reflecting this sector's strategy to deliver more economical units to the massive Bangkok lower-middle-income housing market.

A Flattening Price Gradient

The pattern emerging in Bangkok is one of rapid decentralization and increasing density of urban development, with spillover into Nonthaburi, Pathum Thani, Samut Sakhon, and Nakhon Pathom. A multi-centered form of metropolis is thus likely to emerge. But so far, development of industrial and commercial centers has been located haphazardly and is not integrated to develop as regional activity nodes. There continues to be a considerable increase in real estate prices due to a strong demand for land for residential, commercial, and industrial projects. Since the mid-1980s, land price increases in the metropolitan region have been substantial, with overall prices of serviced blocks increasing by 21 percent per year and for unserviced plots at 37 percent per year. The rate of increase has been even higher in the rapidly growing fringe areas, where they reached in 1990 a compound rate of 42 percent beyond the BMA.

Dowall (1990: 31) suggests that this pattern of land price increases is demand-generated, and that prices reflect massive land requirements. A further major factor that shapes the cost of Bangkok's land and housing market is the availability of and proximity to infrastructure and services. Dowall's (1989 & 1990) analyses estimated that the availability of complete infrastructure increased residential plot values by 165 to 221 percent, independent of location. It was also established that, relative to other megacities in Asia, Bangkok's land price gradient is considerably 'flatter' than, for example, Jakarta, largely as an outcome of the considerable price escalation of residential land development on the city fringe at rates higher than those in the central city. He concluded that for Bangkok "the beneficial impact of infrastructure provision suggests that a property tax or special assessment could be used to finance infrastructure development," an issue that needs to be addressed by central government and BMA municipal policy-makers. The 1991 USAID study into property tax represents an initiative to address this issue.

Government Housing Programs

Following the lead provided by Singapore in the early 1970s, Hong Kong, Thailand, the Philippines, and Indonesia established unified housing bodies to minimize many of the difficulties (of overlapping responsibilities and competition for scarce financial resources) that arose from multi-agency delivery of low-cost housing. The National Housing Authority (NHA) in Thailand was formed in 1975. But from the outset it failed to meet the projected levels of dwelling construction specified in the numerous Five Year Plans because of, inter alia, lack of financial resources. The high cost of conventional approaches led to the 1976 five-year target of 120,000 dwelling units at a rate of 24,000 units a year being downgraded. There was also a heavier emphasis on slum upgrading as a program that would benefit more people at a cost the government and the poor could afford. By the Fifth Economic and Social Plan (1982-86), the National Housing Authority no longer provided rental housing, and only sites and services projects and slum upgrading were being pursued.

Public housing in Bangkok continued to expand between 1974 and 1988, but after 1984 the annual rate dropped to 3.3 percent as the availability of land for public housing became a major problem constraining production. (Dowall, 1990: 13).

In recent years, the NHA has moved away from relatively expensive subsidized housing schemes, towards replicable low-cost sites and service schemes, affordable by lower-income groups, and slum improvement schemes for very-low-income groups. The NHA's ability, management, and financial reliability has been strengthened considerably in the process; and further improvements are likely to follow through the development of a linkage with a suitable financial intermediary, such as the Government Housing Bank.

Private Housing Producer Roles

The emergence of the private housing developer as the dominant player in the Bangkok residential property market has been significant. The viability of the private formal-sector housing producers is one of the prime reasons why overall housing affordability actually improved in Bangkok in the 1980s and the relative growth of slum areas slowed (Dowall, 1989; 1990). This was achieved because of low-cost housing developments provided by private real estate developers, despite rising land prices. A PADCO/National Housing Authority Study in 1987 showed, in fact, that low-cost private sector housing developments were priced below many housing units provided by the NHA, and suggested that the NHA not attempt to compete with these projects but go 'down market'. The Sixth National Economic and Social Development Plan showed the importance of private sector housing production by large companies as the fastest-growing component of the housing sector. These developments are more likely to be provided with public or private transportation, piped water, electricity, and telephones. Research by Dowall (1989; 1990) shows how the real cost of housing in Bangkok had declined during the

decade 1980 to 1990, and that the distribution of housing had produced a more marked bimodal distribution across income groups, as shown in Table 15-5, with an increased concentration of supply to both the bottom and top income categories.

Condominium Residential Development and Foreign Investment

After a flooding of the market in the 1970s, Bangkok's residential condominium property market saw unprecedented growth in the late 1980s. Foreign investment has been strong in this market segment, in line with the boom in the office, retail, and hotel sectors. In particular, there has been a major boom in the first-class residential accommodation market. In part, this reflects the relative infancy of the residential condominium market in Bangkok; in addition, there has been an acute undersupply, with the Sukhumvit and River Chao Phraya areas having 100 percent occupancy rates since 1988. The Sukhumvit area accounts for over 50 percent of the condominium market, with the Silom/Sathorn Road and Phleonchit/Wireless Road areas having almost 40 percent of the market, and the Chao Phraya River about 9 percent. Over 4,350 units were being built in 50 projects in 1989, with all expected to be on the market by 1992; 34 of these projects were in the Sukhumvit area. Foreign investment has assumed an important role in this market segment.

Rentals had been driven up to US\$957 to \$1,310 per month for units over 400 sq.m., reflecting the buoyancy of this market segment, which is highly speculative in nature. According to a Jones Lang Wootton report (1990a: 31):

future demand for rental accommodation will depend very much on the growth of foreign investment and the health of the local economy. The current building boom is likely to create an unprecedented level of new supply once the proposed developments come onstream over the next three years (1990 to 1992) and will therefore put a lid on any future excessive rental increases.

Some developers are also taking up this condominium concept for low-cost housing projects. But high-rise condominium developments pose problems because they place burdens on local services and facilities. They can create adverse neighborhood environmental impacts, and they pose potential long-term maintenance and management problems. Their development requires proper planning of neighborhood areas and management mechanisms, which are unlikely to be achieved without new legislation.

Effective Outcomes from the Market Processes

It would seem that despite the complexity of Bangkok and the rate of its growth and expansion, the land market is working well and is providing ample land for housing development. The construction industry is expanding production of moderate-priced housing, and housing affordability has improved in the past five years. A responsive land market and adequate supplies of finance capital appear to be the key ingredients responsible. The Bangkok case illustrates the

Table 15-5

Distribution of Housing Prices in Metropolitan Bangkok 1980, 1986 and 1990, in Constant 1990 Baht

<u>Price Range</u>	<u>Percent of Planned Housing</u>		
	<u>1980 %</u>	<u>1986 %</u>	<u>1990 %</u>
Less than 300,000	5.6	9.7	16.6
300,001 to 500,000	26.1	39.14	26.0
500,001 to 700,000	33.8	9.1	9.0
700,001 to 900,000	13.3	10.2	18.0
Over 900,000	20.6	31.6	29.6
TOTAL	100.0	100.0	100.0

Source: Dowall, 1990.

importance of efficient housing and land market operation in improving housing delivery. The private sector market and its vitality is crucial for the continuing production of moderate-cost housing. The role of the public sector might best be to concentrate on ensuring that the supply of land for housing keeps expanding and that land use controls and infrastructure regulations do not limit housing production opportunities. Financial institutions need to continue to provide mortgage finance to home buyers.

Dowall's (1990: 43) analysis of Bangkok's land and housing market reached the overall conclusion that:

while the land and housing market is still operating efficiently, quickly responding to intense demand processes, it is under considerable stress. Land prices have been rising rapidly, housing prices are escalating, and traffic congestion is worsening. As the housing and land market respond to demand signals and build higher-density projects, a planning and infrastructure development program to support development is necessary.

He summarized likely future trends in Bangkok's housing production and urban development form as follows:

[T]he inner-suburban area is no longer the key center for housing development activity. Increasingly housing development is shifting to outlying areas as well as infill locations. In the future, there will be little infill development as the area within 20 kilometers becomes developed. Vacant land for development is declining in the core area of the city (only 11 percent of this area is still vacant, and much of this land is not developed). Massive redevelopment is not likely to occur unless land expropriation and infrastructure development policies change Given the strong demand existing for housing and commercial and industrial development, urbanization will clearly shift to the fringe areas. These are areas with limited infrastructure and support services. Housing development in these areas will also tend to consume more land as residential plot sizes on the fringe tend to be larger. This will increase pressures on more urban lands in the future (Dowall, 1990: 15).

FUTURE DIRECTIONS

It is evident that Bangkok is on the path to become an Asian 'megacity', and that Thailand is poised to become Asia's next NIC. Bangkok has emerged as a major regional air hub in Asia. Through its air, sea, and tourism activities it is now inextricably linked to the Pacific Rim and its emerging sets of systems of cities. The Thai economy is a fertile environment for foreign investment, and Bangkok is becoming integrated into the Asia-Pacific web of international capital flows as well as the commercial, retail, industrial, hotel, and residential property investments it spawns. Thailand has remained fiercely independent as a constitutional monarchy, despite a high turnover of governments over the last 25 years, but the political outlook is judged by investors to be encouraging, despite the role the military plays in domestic politics (Jones, Lang Wootton, 1990: 42).

However, there are significant current and potential crises, relating to infrastructure deficiencies and institutional inefficiencies, that Thailand must face, particularly in planning and managing

the further development of Bangkok. And there are some questions to be raised regarding future strategies for the economic development of Thailand. Some of the questions and issues facing the nation and that need to be addressed in Bangkok are outlined in these concluding comments.

As far back as the early 1980s it was argued by Walton (1982) that Bangkok and other rapidly expanding cities in Southeast and East Asia (such as Manila, Jakarta, Taipei, and Seoul) were prime candidates to fit a model of urban development that demonstrated the unequal terms of exchange within the international economy. This was reflected in large part by the emergence of a dominant role of transnational corporations, resulting in further increases in urban primacy, distortion in previous patterns of the urban hierarchy, and increasing centralization of activities within a megacity. It seems that the 1980s confirmed this hypothesis in Bangkok.

In June 1988, a United States sponsored economic seminar addressed the issue of Thailand's progress along the road to becoming an NIC. Warnings were sounded about taking the extreme road to industrialization. Problems already facing Thailand, and especially Bangkok, included congestion at the Klong Toey Port and the unchecked industrial pollution that could spill over to cause health problems and adversely affect agricultural and fishing industries. Caution was expressed about abandoning agriculture. Rather, Thailand could do well to become an NIC by emphasizing its strategic development in agro-industries. Despite the rapid industrialization, Thailand's impoverished rural areas have not shared in the resultant prosperity; increasing regional disparities are evident. Unemployment is on the increase. Violations of minimum wage rules and abuse of child labor are rampant, with one estimate (*Bangkok Post*, 1988) being that about one-third of all workers in Bangkok receive less than the minimum wage. A focus on cheap labor as the route towards NIC status would only see this supposed cost advantage eventually disappear, as has been the case in Taiwan and South Korea.

Technology and knowledge transfer are also crucial areas for greater attention. A report from the Asian and Pacific Center for Transfer of Technology (1987) identified several weaknesses in science and technology in Thailand, including lack of real progress to popularize science and technology in education and through the media; a disappointingly low (0.34 percent of GDP) investment in R&D; and a lack of government encouragement for home-grown technological development. The growth of much of Thailand's manufacturing sector has been as a sub-contractor to produce products or brand names under license to a foreign firm. The 1987 USIS economic seminar noted that Thailand had much more bargaining power than in the past, and that this advantage needed to be used to be more selective in choosing investors and in determining conditions and privileges. Approaches could involve the BOI giving more incentives for projects investing in R&D in order to entice long-term commitment of foreign investors, as well as to develop the international competitiveness of Thai-made products. Executive Boards of Directors could

place more emphasis on management skills rather than window-dressing through appointing privileged people.

Thailand needs to safeguard the uniqueness of Thai culture and way of life, and not lose its national identity in the way some of the NIC nations have done. Industries that serve an important supporting role for the nation's manufacturing capabilities, through assistance in planning, promoting basic industries, and in formulating ways to encourage foreign investors to maximize technology transfer, need to be emphasized. The slow tax rebate process needs streamlining, such as by allowing the private sector to commission tax consultants to formulate a more efficient tax rebate system. The role of institutions such as the Joint Public-Private Consultation Committee (JPPCC) should be further supported to assist the development of the economy. And institutions such as the NESDB, the Budget Bureau, and the Bank of Thailand need to be given the opportunity to present objective recommendations towards implementing the country's economic policy to continue the stability that Thailand has enjoyed over the previous decade or so.

Further improvement in Thailand's favorable investment climate could be achieved by greater government investment in infrastructure, the development of the local stock market to take advantage of the emergence of an urban middle class and to encourage domestic investment, encouragement of reinvestment from existing firms already manufacturing, and through promoting new investment. A significant development in the late 1980s was the introduction of the Securities Exchange of Thailand, which should increase the flow of capital.

In the long run it may well be that the biggest impediments to the ongoing internationalization of Thailand, and in particular to the crucial role that Bangkok must play as its gateway to the world, will be the city's tangled traffic, its temperamental phones, its polluted waterways, its poorly managed water and sewerage infrastructure, the inadequate fiscal base for metropolitan management and services provision, and the ineffective institutional arrangements for coordinated urban development planning. The hordes of tourists who currently flock everywhere may be driven away in the long term by the environmental despoliation of places like Pattaya and the public health risks associated with the massage parlors of Pat Pong.

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CHAPTER 16

THE INTERNATIONALIZATION OF JAKARTA AND THE GROWTH OF THE SERVICES SECTOR

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THE ASIAN PACIFIC METROPOLIS

The focus of interest in Asian Pacific cities has switched noticeably in the last two decades. In the 1970s, concerns were directed at the rapidity of urban growth — particularly in the metropolitan centers — and the expansion of the informal sector. During the 1980s, the spotlight shifted to the accelerated growth of the economies of the region, and the development of "global" and "regional" cities. Poverty and the informal sector receded into the background. The electronics industry, new manufacturing processes, the services sector, and the proliferation of the new middle class have become the cutting edge of contemporary urban economic research.

However, the new agenda is somewhat unevenly developed. Rather more is known about the so-called "global cities" of the region — Hong Kong, Singapore, Tokyo, and Sydney in particular — than about the major "regional cities": Jakarta, Manila, Bangkok, Kuala Lumpur, Seoul, Taipei, Beijing, and Ho Chi Minh City. These cities, primarily capitals, play a major role in the economic strategies of their respective countries. They are manufacturing and high-level service centers at the apex of state and corporate decision-making, and the main link between the domestic and international transport network. Many also have a social and cultural significance stemming from their concentration of an increasingly affluent middle class.

But new research directions notwithstanding, the rapid growth and inflated size of these cities means that they also accommodate, often in appalling conditions, large numbers of very poor people. The informal sector still dominates employment in many, if not most. Increasingly, the major Asian Pacific metropolitan areas, therefore, combine both the conditions for rapid economic advance and a large segment of the population living in extreme poverty.

The global discourse on macro-economic management plays an important role in the formulation of a majority of Third World development strategies. Yet it is a source of concern that this discussion remains poorly connected with either the theoretical or empirical debate on urban development. The result is that the impact of economic policies on cities is incompletely understood, while the

perceived options available to urban managers in planning and policy formulation seldom reflect a deep understanding of the global economic processes guiding metropolitan urban development.

The chapter begins by documenting recent alterations in the economic policy environment in Indonesia, especially the increased emphasis on its international links, and the effect this is having on the structure of the Indonesian economy. Following a brief description of the historical growth of the city, it looks at its contemporary economic role and structure of the city and the impact of economic reform—particularly in industry and manufacturing—on the city's evolving connections to its hinterland. It then focuses on changes in the functioning of the producer services sectors—defined as financial and business services, and urban land and property management. The chapter concludes by noting the direction set for Indonesia's economy in the current Five Year Plan (Repelita V) and speculating on the impact this might have on Jakarta.

THE INTERNATIONALIZATION OF THE INDONESIAN ECONOMY

Economic Strategy

As in most countries, the prevailing economic ideology in Indonesia is a composite entity in a state of flux. From the mid-1960s to the early 1980s, there was a marked shift in the balance of influence away from pre-Indonesian New Order socialist principles towards an entrepreneurial bureaucratic capitalism, the hallmark of which was large investments in import-substituting industries. This, in turn, increasingly has given way to the influence of technocrats versed in neoclassical economics. Not all of Indonesia's decision-making elite favor the 'open economy' model, but there is little doubt that the country is moving inexorably to further internationalize its economy, particularly through a greater emphasis on foreign investment and trade (Prawiro, 1989).

In the years since the New Order government came to power in 1966, it has progressively sought to integrate Indonesia into the regional and global capitalist economy. Aided by large inflows of concessional finance and substantial foreign private direct investment from Japan, Indonesia in the 1970s actively exploited its considerable natural resources, the mainstay of which has been oil. During the 1980s the global oil surplus led to a decline in foreign exchange earnings and a resolve on the behalf of government to diversify its export base.

Since the early 1980s, a series of reforms has been introduced which are designed to improve economic efficiency and shift the direction of the economy from import-substitution to an export orientation, with a particular emphasis on non-oil exports (Prawiro, 1989). As one Indonesian commentator put it:

We are all part of a larger global economy. That means economic and administrative reforms in Indonesia have to be aimed at improving Indonesian effectiveness and competitiveness, not just by local standards, but judged by the exacting criteria of the larger global marketplace (Soegito, 1989).

Many economic reforms, including deregulation, have been introduced to facilitate operations in the financial sector, promote foreign trade, encourage investment (particularly foreign investment), streamline customs and shipping, ease regulatory controls on land transport, and improve the country's tax base.

A recent assessment of progress on these measures identified some problems. For example, the implementation has, not unexpectedly, often lagged far behind their promulgation. Government staff expected to enforce measures have been inadequately educated or trained, and the complexity and inter-relatedness of the tasks have not been sufficiently recognized (Soegito, 1989). Nevertheless, there is a general expectation in Indonesia that the government will continue with its reform program.

Summary Economic Indicators

The Indonesian economy performed reasonably well during the 1970s, with an average growth rate in per capita GDP of 5.4 percent. This was rather better than its major ASEAN partners (Malaysia, the Philippines, and Thailand), and approaching those achieved in the NICs. Oil price rises during the decade contributed significantly to this. Between 1971 and 1980, GDP growth averaged 7.9 percent per annum, with value added in agriculture increasing at 3.9 percent per annum, while industrial growth averaged 12.5 percent per annum (Asian Development Bank, 1989, Tables A3 and A4).

However, Indonesia's economic performance during the last period (1981 to 1988) was disappointing. The slump in oil prices saw the annual average per capita growth rate drop back to 2.4 percent, well behind those sustained in the NICs and the most successful of the large ASEAN nations, Thailand. It was also poorer than the major socialist countries of the region, particularly China. The World Bank has recently down-graded Indonesia from a middle-income to a low-income economy.

During the same period, the overall GDP growth rate has averaged 4.4 percent. The last few years have been characterized by slow growth in agriculture (around 3 percent), but faster rates of growth in manufacturing and construction (4-5 percent) — due to the expansion of non-oil exports — and in the services sector (over 5 percent) as a result of improved tourism.

Internationalization of the Indonesian Economy

One aspect of recent changes in Indonesia's economy to be considered is the degree to which it is internationalizing. This can be illustrated by looking at two measures of that process: overseas foreign direct investment and international trade.

The bulk of investment in Indonesia over the last decade and a half has come from domestic sources. The domestic contribution to total investment averaged 71.7 percent during Repelita (Rencana Pembangunan Lima Tahun, or the Five Year Plan) II, 79 percent during Repelita III, and 80.9 percent during Repelita IV (Booth, 1989). However, since 1986, a series of reforms deregulating and liberalizing the approval mechanisms for foreign investment has been introduced in Indonesia

explicitly to lessen restrictions on foreign firms investing in Indonesia. In particular, these reforms encourage the establishment of joint ventures by reducing local equity requirements, while at the same time an increased range of industries was opened up for foreigners (Asian Development Bank, 1989; Bank Indonesia, 1988).

Between 1967 and 1987, foreign investment projects valued at more than \$US 7.6 billion have been implemented in Indonesia, equivalent to about 45 percent of investments approved. Almost two-thirds (65.5 percent) have been in manufacturing, compared to 15.1 percent in mining and 5.7 percent in forestry (Bank Indonesia, 1988). While foreign investment approvals had dropped below \$US 900 million in 1985 and 1986, they surged to \$US 1.5 billion in 1987 and \$US 4.4 billion in 1988. Domestic investment approvals also increased noticeably (by 45 percent) in 1988. About 70 percent of total approvals, and 50 percent of investment value in 1988, was directed towards export-oriented production, an upward trend compared to earlier years (Asian Development Bank 1989; Bank Indonesia, 1988).

In addition to foreign direct investment, Indonesia's development budget historically has been well supported by concessional financial transfers from developed countries (coordinated by the Inter Governmental Group on Indonesia, or IGGI) and major multilateral institutions, such as the World Bank. In the 1988/89 budget, around 80 percent of development spending has been sourced from concessional finance provided by bilateral and multilateral development agencies (Asian Development Bank, 1989).

One consequence of this reinforced emphasis on overseas investment has been the growth of Indonesia's external debt to \$US 55.6 billion in 1988, with the debt-servicing as a proportion of exports increasing from 24.9 percent in 1985 to 40.0 percent in 1988.

The primary task for Indonesia's economic planners has been to promote and expand the country's non-oil exports and expand trade overall. Since 1986, the government has tried to liberalize trade laws and regulations in an attempt to foster trade. Measures have included simplifying import regulations, reducing duty on imports required by exporters, and relaxing tariff and non-tariff barriers. Parallel measures beneficial to international trade involved a number of customs and shipping reforms, and a major currency devaluation in September 1986.

Merchandise exports, as a proportion of GDP, increased from 22.8 percent during the 1970s to 23.5 percent during the 1980s. The very strong growth of non-oil exports has been more important than the aggregate change in total exports. Non-oil exports increased by 50 percent in 1987 and, it was estimated, by another 20 percent in 1988 (Asian Development Bank, 1989).

It may be seen that the Indonesian economy grew strongly during the 1970s, but started to falter during the 1980s, particularly due to its dependence on oil exports. The government's response was to promote the growth of non-oil exports by introducing a series of macro-economic reforms designed to reduce the domestic costs of production, and make the country more attrac-

tive to foreign investment. On the available evidence, it seems that these reforms have stimulated foreign investment and significantly boosted non-oil exports.

JAKARTA'S GROWTH AND ECONOMIC STRUCTURE

Some of the economic consequences of the reform process have already been mentioned, but what of the impact on the urban system on, in particular, Jakarta? It seems that the reforms are, initially at least, leading to an increase in the already high levels of foreign investment in Jakarta and its immediate hinterland. The structure of Jakarta's economy, sources of investment, and spatial restructuring within the Jakarta region are therefore considered next.

Historical Background

Jakarta is the capital and the largest city in Indonesia's urban system. The city's economy grew rapidly in the period from the country's independence until the mid-1960s, while its population also escalated quickly, reaching almost 3 million by the time of the 1961 Census (Table 16-1). Both the population and GDP growth rate exceeded the national average (Castles, 1989). Infrastructure development, however, was slow. The exception was the building of monuments to Indonesia's struggle and independence, which received a high priority, leading to the construction of landmarks such as Taman Monas in the central Medan Merdeka.

Jakarta had a population in 1985 of 7.9 million, just over 18 percent of the country's urban population. It had probably reached about 8.7 million in 1989. The annual growth rate from 1971 to 1985 was 4 percent, with the total population of the city increasing by an average of about 234,000 each year from 1985 to 1987. Jakarta's population is projected to reach 12 million by the end of the century.

The rapid population growth rate experienced by Jakarta can be attributed to a number of factors. Natural growth is a significant component of the urban population increase, accounting for about 160,000 of the increase each year, or 68 percent of the annual growth (based on data in Kantor Statistik, Propinsi DKI Jakarta, 1989a).

Jakarta is a major focus for migrants from other parts of Indonesia, particularly Java. Net immigration between 1985 and 1987 accounted for, on average, 74,000 people each year, or about 32 percent of the increase. People move to Jakarta for many reasons. These include the release of labor due to the introduction of new technology in the agricultural sector; chain migration as extended family members follow one another from village or small town to the city; and the perception that the capital offers more jobs, higher incomes, and a better-quality lifestyle than anywhere else in Indonesia. The migrant stream to Jakarta includes a higher proportion of educated people than those going to other regions, a larger proportion that come from far afield, and many more overseas born. Additionally, Jakarta hosts a large number of circular, or temporary, migrants

Table 16-1

Population Growth of Jakarta

	<u>1961</u>	<u>1971</u>	<u>1980</u>	<u>1985</u>	<u>2000</u>
Population (000)	2,973	4,579	6,480	7,886	12,009
Proportion of total urban population (%)	20.7	22.4	19.7	18.3	14.9
Proportion of total population (%)	3.1	3.8	4.4	4.8	5.7

Source: Biro Pusat Statistik.

from neighboring provinces, not all of whom are included in formal census enumerations (Castles, 1989). The spatial structure of Jakarta is shown in Figure 16-1.

The Economy of Jakarta

Although containing a little under 5 percent of the nation's population, Jakarta's GDP in 1985 of Rp 9,877 billion was 10.3 percent of the national total (on contemporary Jakarta see Clarke, 1985; Bappeda DKI Jakarta, 1987; United Nations, 1989). The real growth rate between 1981 and 1985 averaged 7 percent per annum. Wholesale and retail trade is the most important sector of the economy, followed by banking and finance, industry, and the remainder of the services sector. In 1985, secondary industry (i.e. manufacturing, construction, and utilities) provided 24.9 percent of GDP, whereas the tertiary sector as a whole accounted for 73.8 percent of GDP. The highest annual average growth rates of GDP between 1981 and 1985 were services (11.6 percent), public administration (11.5 percent, surprisingly high during a period of cutbacks in the public sector), and utilities (10.6 percent) (Table 16-2).

Despite Jakarta's economy being strongly skewed in favor of the services sector, it is still the main industrial center in Indonesia, accounting for 18.3 percent of national value added in large and medium manufacturing industry in 1985, and 13.8 percent of employment.

Jakarta is dominant in metal products (especially the automotive industry), accounting for almost half the value added. In addition, it accounts for more than a third of value added in non-metallic minerals, and more than one-fifth of textiles, leather and footwear, and paper and printing (Castles, 1989).

The services sector includes transport and communications, trade, public administration, and producer services. Jakarta is the hub of the domestic and international transport networks, which in the Indonesian context means air, sea, rail, and road. It contains the country's premier international airport (Sukarno-Hatta International Airport, opened in 1985). The value of exports shipped through Tanjung Priok, in 1985, ranked behind only the resource-rich provinces of Riau, East Kalimantan, and Aceh; whereas about one-third of Indonesia's imports enter through Jakarta (Castles, 1989), reflecting the industrial base of the city, the consumption power of its inhabitants, and its importance as a distribution point for the rest of Indonesia. Jakarta's significance in international communications can be gauged by the fact that it contains 33.8 percent of Indonesia's telephone sets, while, in 1988, 41.6 percent of international telegrams and 69.9 percent of out-going international telexes originated in the city (Biro Pusat Statistik, 1989).

Land transport systems also focus on Jakarta, including Java's railway network and its gradually expanding road network, which connect with ferries to Bali and Madura in the east, and Sumatra in the west. Extensive investment in freeway development has occurred around Jakarta, joining it to the international airport, and upgrading the roads linking the main destinations in the Botabek

Figure 16-1

The Spatial Structure of Jakarta

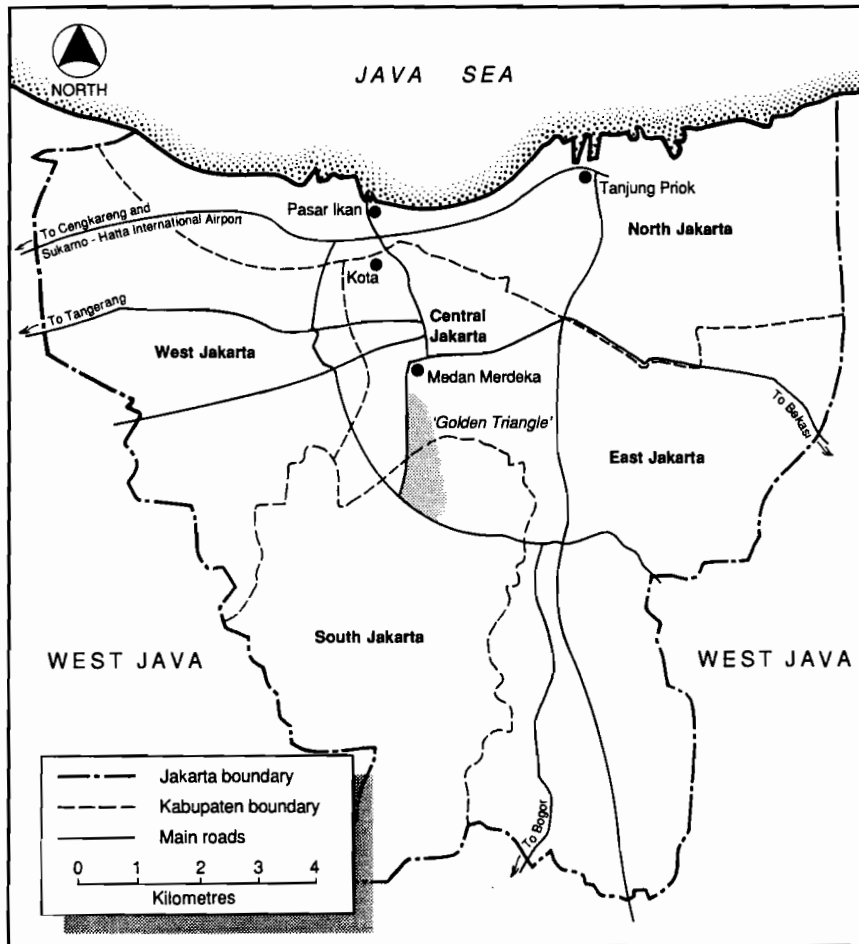


Table 16-2**Total Gross Domestic Product, Jakarta, 1981-1985 (constant 1980 prices)**

	<u>1981</u>		<u>1985</u>		Annual
	<u>Rp billion</u>	<u>(%)</u>	<u>Rp billion</u>	<u>(%)</u>	growth
					<u>(%)</u>
Agriculture	58.1	1.2	84.6	1.4	9.9
Industry	863.8	18.5	1,141.3	18.6	7.2
Construction	199.9	4.3	272.9	4.5	8.1
Electricity, gas, and water	71.3	1.5	106.8	1.8	10.6
Transport and communication	402.5	8.6	582.0	8.2	9.7
Wholesale and retail trade	1,161.5	24.8	1,359.7	22.2	4.0
Banking and related services	888.4	19.0	1,132.5	18.5	6.3
Dwelling rental	205.6	4.4	238.8	3.9	3.8
Public administration	355.7	7.6	550.5	9.0	11.5
Services	475.1	10.1	737.6	12.0	11.6
Jakarta Total	4,681.7	100.0	6,126.8	100.0	7.0

Sources: Kantor Statistik, Propinsi DKI Jakarta, 1989a, Tables 9.2 and 9.3.

region. Equally, within Jakarta there has been massive investment in arterial tollways crisscrossing the city, although rapid expansion in the number of private automobiles in the early 1980s has meant that traffic congestion in many parts of the city continues to increase. Communications within the city have improved vastly over the last decade (as have communications throughout Indonesia, due to the Palapa satellite).

Jakarta remains the home of the central government. Despite cutbacks in public-sector spending due to reduced government oil revenues, the deregulation thrust of economic policy, and a genuine desire to decentralize remaining bureaucratic power to the provinces and sub-provincial regions (such as municipalities), it is unlikely that the significance of the location of government in Jakarta will diminish to any great extent over the coming years.

Finally, both the wholesale and retail trade sectors have grown enormously, while the producer services sector, centralized in Jakarta, is a major contributor to the economy and is showing strong growth.

How can the economy of Jakarta be described at the present time? Castles (1989) notes a theory that Jakarta is in transition from a pre-industrial to a post-industrial city, having skipped over the industrial phase. But he rejects that idea, arguing instead "that a post-industrial sector (financial services, electronic communications, air transport, etc.) has been grafted on to a pre-industrial city, with medium technology manufacturing playing an increasing but not leading role." In order to pursue that line of argument further, we need to look at the impact of economic reform on the pattern of investment in Indonesia.

ECONOMIC REFORM AND THE CONCENTRATION OF INVESTMENT

What is the impact of Indonesia's changing economic structure on the space economy and, particularly, on Jakarta? What kinds of changes in the structure of the city have resulted from Indonesia's economic strategy, especially from economic deregulation and increased exposure to international economic forces? The two questions are, of course, closely connected. Although the process of economic reform in Indonesia has occurred in a somewhat piecemeal fashion, and is far from complete, the answer is that internationalization has been a major stimulus to the role and economic importance of the principal metropolitan center in the overall urban system.

Until the mid-1970s, Indonesia had no explicit policies for guiding the regional distribution of industrial development, either for spreading industry throughout the regions, or for promoting a concentration of industries in the major urban areas (Donges, Stecher, and Wolter, 1980). However, from the mid-1970s until the late 1980s, the government tried to influence the location of industry, encouraging new investment to locate in rural areas and providing incentives to invest outside Java, in the interests of regional development and spatial equity.

Industrial investment during the New Order has demonstrated three locational characteristics. First, the major resource-based industries usually established in the outer islands, close to sources of raw materials. Second, many highly labor-intensive low-technology industries (e.g. cigarette-making) preferred to situate in Java, but not in or around Jakarta. Third, large industries geared towards domestic consumption, or requiring close links to governments or communications and business services tended to concentrate in the Jakarta-West Java region (Castles, 1989; Forbes and Thrift, 1987).

Patterns of Investment

The geographic pattern of foreign investment and major domestic investment approvals is shown in Table 16-3. Cumulative data on foreign investment approvals, between 1967 and 1982, show that 45.8 percent were targeted on the Jakarta-West Java region, but from 1983-1987 this increased to 72.2 percent. Despite policies which attempted to disperse foreign investment, since 1983 the dominance of Jakarta and West Java has been strongly reinforced.

Either due to recognition that the policies were not working, or perhaps because of new policy priorities, restrictions on the location of investment appear to have been relaxed. Recently it was decided to replace the very detailed Investment Priority List, which documented places and industries where investment was permitted (Forbes, 1986), with a Negative Investment List specifying areas closed to foreign investment. There are 75 subsectors to which these restrictions apply: 9 are completely closed to foreign investors; in 63, foreign investment is permitted as long as 65 percent of production is exported; and 3 areas stipulate all production for export (*Indonesia Development News*, 1989).

Only large-scale domestic projects need go through the same approvals process as foreign investment. However, the concentration evident in the foreign investment data is also apparent in the domestic data, though not perhaps to quite the same degree. Between 1967 and 1982, the Jakarta-West Java region was the location of 48.4 percent of approvals, but this dropped to 42.1 percent in the period 1983-1987.

Yet, while there is evidence of a relaxation in the investment locational guidelines, the Indonesian government remains committed to its long-term goal of regional development. As the long-term development strategy notes: ". . . the stages of economic development in all regions should be even and balanced" (Department of Information, 1989). The commitment to "balanced regional development" has not been done away with altogether, as is evident from the public investment strategy for Repelita V (Booth, 1989).

The sectors attracting foreign and large domestic applications over the period 1967-1987 are shown in Table 16-4. The services sectors have accounted for 60.2 percent of major domestic approv-

Table 16-3**Foreign and Domestic Investment Approvals by Region, 1967-1987**

<u>Foreign Investment</u>	<u>1967-1982</u>		<u>1983-1987</u>	
	<u>\$million</u>	<u>%</u>	<u>\$million</u>	<u>%</u>
Jakarta	2,219.8	22.5	1,604.3	22.5
West Java	2,295.5	23.3	3,544.0	49.7
Total Indonesia	9,875.0		7,131.6	
<u>Domestic Investment</u>	<u>Rpbillion</u>	<u>%</u>	<u>Rpbillion</u>	<u>%</u>
Jakarta	2,028.1	12.8	3,276.6	11.9
West Java	5,648.1	35.6	8,325.3	30.2
Total Indonesia	15,868.9		27,573.1	

Sources: Bank Indonesia, 1988, Tables 9.26, 9.30.

Table 16-4

Foreign and Domestic Investment Approvals for Jakarta, 1967-1987 (%)

<u>Sector</u>	<u>Domestic (%)</u>	<u>Foreign (%)</u>
Manufacturing of which:	39.8	67.3
. metal products	18.8	39.1
. chemicals	4.3	11.4
. non-metallic minerals	1.9	6.7
. textiles	3.3	3.1
. food	4.8	2.6
. basic metals	3.5	0.7
Services of which:		
. office buildings	60.2	32.8
. hotels	9.0	9.7
. construction	16.4	9.5
. transport	11.4	4.0
	11.3	3.0
Total	100	100
Money value	Rp 5,227 billion	\$US 4.4 billion

Source: Castles, 1989, p. 242.

als, and 32.8 percent of foreign investments, most of which is concentrated in office buildings, hotels, and construction. No other Indonesian province has attracted such a high level of interest in the services sector, save for tourism in Bali. Foreign and domestic investments in the manufacturing sector have concentrated on metal products, particularly the automotive industries (Castles, 1989).

The Location of Industry in Jakarta and its Hinterland

Jakarta only started to develop an industrial capacity in the late colonial period. Initially, industry located in the old city (Kota and Pasar Ikan) and near the port at Tanjung Priok, but it developed in halting fashion, suffering a setback during the 1960s. It started to expand again in the early 1970s, with the development of industrial estates at Pulo Gadung and the mini-export processing zone at Tanjung Priok (Castles, 1989).

Concurrent with the development of estates, industry began to spread along the corridors linking Jakarta with Tangerang in the west, Bekasi in the east, and Bogor to the south. Eventually, this spilled over into the surrounding province of West Java, particularly to the east and west. Concern about Jakarta's ribbon-like development beyond its administrative boundaries, and the need to coordinate planning with the surrounding province, has been expressed as far back as the 1950s (Giebels, 1986). The greater Jakarta region became known as Jabotabek (Jakarta, Bogor, Tangerang, Bekasi) in the early 1970s, and has been the focus of a major planning study (Clarke, 1985).

Jakarta has developed a close relationship with its hinterland in West Java, and the province's geography has been changed by its proximity to the capital. In 1985, West Java had a population of 30.8 million. There are two main industrial regions. The first is known as Botabek— the Kotamadya of Bogor, and the Kabupatens of Bogor, Tangerang, and Bekasi— which surround Jakarta. This region has the greatest degree of industrial diversification, with new industries including chemicals, metals, and machine goods. Tangerang is also the site of Jakarta's new airport at Cengkareng (Hardjono, 1989).

The second major concentration of industry includes the city of Bandung and its surrounding area. Traditionally, Bandung was the center of the country's textile industries, as well as being a major focus of the plantation economy. Currently, the Indonesian government has plans to develop high-technology industries in Bandung, including aircraft manufacture (already based in Bandung at the government aircraft factory) and a domestic electronics industry (Economist Intelligence Unit, 1988).

The spatial structure of the West Javan economy is changing due to the impact of the growth of Jakarta. Since the early 1970s, the economic center of West Java has gradually shifted from the upland area around Bandung to the Botabek region around Jakarta, where new investment has been attracted by access to the markets and services available there. At the same time, the north coast of West Java has grown quickly—to the east, due to a rice intensification program, and to the west, as a result of improved land transport connections to the transmigration settlements in the south of Sumatra.

THE PRODUCER SERVICES SECTOR IN JAKARTA

Jakarta's role has expanded and diversified during the last two decades. The city remains the major industrial center of Indonesia, but its own economy is dominated by the services sector. Foreign investment has been concentrating in Jakarta and West Java, as have many large domestic investment projects. The relationship between expanded industrial, commercial, transport, and government services in Jakarta, the development of the producer services sector in the city, including a build-up in the financial sector, as well as an expanded real estate and business services sectors, is emerging as a significant phenomenon as Jakarta becomes increasingly linked to the regional and global systems.

Central Place Facilities

A study by Rutz (1987) developed a sophisticated Central Place Facility Index (CPFI), based on 74 official administrative, semi-official (such as education and health), and private services, for 3,760 urban places in Indonesia in 1980. The raw scores were weighted according to duplication; under-enumerated private-sector services were increased in value, and administrative services adjusted to reflect their real significance.

Jakarta achieved a weighted CPFI of 37,000—over six times larger than the second-ranked city (Medan), and larger than the next six biggest cities combined. On a per capita basis, Jakarta's CPFI per thousand population of 5.7 was the median figure for the five highest-ranked cities in Indonesia. This suggests the volume of central place services in Jakarta was approximately proportional to the population, Jakarta dominating the urban system in both. However, this is less important than its absolute dominance in the provision of central place services.

Producer Services Trends

The growth rates in Jakarta's service sectors (see Table 16-2), as noted earlier, are mixed. Table 16-5 isolates the four main components of the producer services in the regional income data: the banking sub-sector, insurance and other financial services, building rentals (not including house rental), and business services. Regional Gross Domestic Product data, in constant 1983 prices, shows negative growth in three of the four sub-sectors between 1984 and 1987, not the pattern expected. As a result, the producer services share of Jakarta's GDP dropped from 23.1 percent in 1984 to 20.1 percent in 1987.

Banking in Indonesia has been a major focus of reforms. Since 1983, commercial banks have deregulated interest rates; preferential credit schemes have been reduced; foreign banks have been permitted to open branches outside Jakarta; state enterprises are now allowed to make greater use of private banks; and private national banks have been encouraged to merge (Bank Indonesia, 1988; Asian Development Bank, 1989).

Table 16-5

Jakarta Regional Gross Domestic Product, 1984-1987 (constant 1983 prices)

	1984	1985	1986	1987
	<u>Rpbill</u>	<u>Rpbill</u>	<u>Rpbill</u>	<u>Rpbill</u>
Banking	1,511	1,368	1,445	1,477
Insurance & Other Financial	190	178	193	186
Building Rental	55	52	56	54
Business Services	242	260	269	303
Total Producer Services	1,999	1,858	1,963	2,020
Share of Total GDP (%)	23.1	20.6	20.8	20.1
Jakarta GDP	8,648	9,013	9,445	10,062

Note: A building rental does not include the housing rental market.

Sources: Based on Kantor Statistik, Propinsi DKI Jakarta, 1989b, Tables 2, 31, and 34.

The major banking institutions are concentrated in Jakarta. For example, the 11 foreign bank joint ventures are all located there, as are the headquarters of Bank Indonesia, all five state commercial banks, and most of the 64 private national banks. In 1987, some 64 percent of Gross Domestic Product in banking and other financial services were generated in Jakarta, compared to 66 percent in 1985.

Other financial services comprise a grab-bag of institutions. These include non-bank financial institutions, of which there are 14 in Indonesia, mainly providing investment finance, insurance companies (102 in all), leasing companies (83), and pawnshops (480 offices) (Bank Indonesia, 1988). Jakarta's Stock Exchange was re-established in 1977. Reform measures applicable to these financial institutions include relaxed regulations covering insurance companies in 1988 and the introduction of over-the-counter trading on the Stock Exchange.

The Jakarta Stock Exchange, though small, is indicative of the changes being brought about in the capital market in Jakarta. Between 1977 and 1988 some 27 companies went public through the share market, 24 issuing stocks and 3 bonds. There was a flurry of activity in 1983, when there were 19 issuances of shares and bonds, but between 1984 and 1988 there have been only another 17 out of a total of 52 since 1977. There are currently 39 companies listed on the Exchange, following a surge of growth which saw 15 additional listings in 1989. However, the influential Shroff column in the *Far Eastern Economic Review* casts doubt on the standards of operation in the Jakarta Exchange (Friedland, 1989).

Commercial building construction and real estate have been central to the establishment of the producer services sector in Jakarta. Beyond the monuments, the city had very little investment in infrastructure up until the late 1960s. But from the early 1970s onwards, central government investment was channelled into Jakarta, which, combined with official development assistance, began to improve the city's physical infrastructure—particularly the big-ticket items like water and sanitation, roads and transport, and various housing programs (Taylor, 1982; Specter, 1984). In addition, private investment poured into office blocks, hotels, shopping complexes, and middle- and upper-income housing.

Inevitably, an oversupply developed in about 1984, leading to a slow-down in construction and a reduction in commercial rents throughout the city (Castles, 1989). This slow-down in rental income is why Jakarta's real estate sector has performed poorly in relation to the city's GDP (see Table 16-5).

There are 87 incorporated real estate firms in Jabotabek, 77 of which are located in Jakarta and 10 in the Botabek region. Within Jakarta the firms are heavily concentrated in Central and South Jakarta, which together account for 73 of the city's 77 firms (Table 16-6).

Within the Producer Services, only the business services sub-sector increased its share of Jakarta's Gross Domestic Product in recent years, growing from 2.8 percent in 1984 to 3.0 percent in 1987 (Table 16-5). Jakarta's business services are highly concentrated in Central and South Jakarta, which in 1985 contained almost three-quarters (70 percent) of the total number of firms

Table 16-6

Location of Producer Sector Firms in Jakarta/Botabek Area

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>Total</u>	<u>%</u>
South Jakarta	24	86	6	12	10	87	8	174	5	412	31
East Jakarta	3	28	6	6	2	12	3	61	8	129	10
Central Jakarta	49	57	32	34	14	68	34	214	10	512	39
West Jakarta	1	50	21	10	1	14	4	57	3	161	12
North Jakarta	<u>0</u>	<u>12</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>5</u>	<u>2</u>	<u>25</u>	<u>2</u>
Total Jakarta	77	233	66	63	27	185	49	511	28	1,239	94
Kag Bogor	7	3	1	0	0	2	1	4	0	18	1
Kab Bekasi	1	0	1	0	0	0	0	1	0	3	0
Kab Tangerang	1	2	13	0	1	0	0	1	0	18	1
Kodya Bogor	<u>1</u>	<u>2</u>	<u>20</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>8</u>	<u>1</u>	<u>35</u>	<u>3</u>
Total Botabek	<u>10</u>	<u>7</u>	<u>35</u>	<u>0</u>	<u>1</u>	<u>5</u>	<u>1</u>	<u>14</u>	<u>1</u>	<u>74</u>	<u>6</u>
Total Jabotabek	87	240	101	63	28	190	50	525	29	1,313	00

Notes: 1 Real Estate
 2 Legal Services
 3 Public Notary
 4 Accounting and Auditing
 5 Data Processing
 6 Building Services
 7 Advertisements and Market Research
 8 Other Company Services
 9 Machinery and Leasing Equipment

Source: Compiled from listings in Biro Pusat Statistik, 1988, pp. 95-205.

in the Jabotabek region (and 75 percent of the firms in Jakarta itself). This corresponds to the main areas of office development within the existing city. There is a secondary or minor concentration of firms in East (10 percent) and West (12 percent) Jakarta, but very few indeed in North Jakarta (2 percent). Similarly, the kabupaten and kotamadya that make up Botabek provided only 6 percent of the total number of firms in Jabotabek. This points to the conclusion that while there is a significant dispersion of industrial enterprises into the Botabek region, business services are staying close to the main commercial centers of the city.

ECONOMIC POLICY AND ITS IMPLICATIONS FOR JAKARTA'S FUTURE

What is the significance of economic development, as expressed in current reform measures and those set out in the new Five Year Plan (Repelita V), for the future development of Jakarta? Repelita V (1989/90-1993/94) projects a national annual average growth rate of GDP of 5 percent per annum, with the highest rates of growth expected in industry (8.5 percent) and transport (6.4 percent), and the lowest in mining (0.4 percent). The services sector (i.e. producer services, public services, and dwellings) is projected to achieve a 6.1 percent growth rate, a little above the rate achieved during the previous plan (1983-1987) of 5.3 percent (Booth, 1989).

Domestically funded investment is expected to increase to 93.9 percent of the total (compared to 80.9 percent in the previous plan). The private sector is expected to increase its share of investment to 60.6 percent, up from 58.8 percent in the previous plan (Booth, 1989). Yet, at the same time, the government expects that foreign aid will still contribute 40.1 percent of the development budget in 1993/94. Aid commitments and at least some other foreign capital inflows, it seems, will be channelled into paying off the existing foreign debt (Booth, 1989).

Non-oil exports are planned to continue to grow strongly, aided by a gradual depreciation of the Rupiah. The plan is not entirely clear regarding which sectors will exhibit the strongest export growth, but agricultural products (palm oil, cocoa, and spices) and manufactured goods (steel and leather products, chemicals, and rattan) are mentioned, unlike either garments and footwear or tourism, both strong export sectors over the last few years (Booth, 1989).

JAKARTA'S GLOBAL FUTURE?

The current economic restructuring in Indonesia has important implications for the urban system of the country as a whole, but particularly for the major metropolitan center. But to what extent are we seeing a *redefinition*, as opposed to a *firming of the definition*, of the role of Jakarta?

Export Orientation

If Indonesia's industrial strategy is successful, and non-oil export targets are met, towards the end of the century Java will, for the first time since the 1920s, be producing around half of

Indonesia's exports. As a result, Java will be providing more employment opportunities in industry and ancillary service occupations than other parts of the country, with the result that household incomes and consumer expenditure will continue to grow faster than in the outer islands, exacerbating the in-migration of educated Indonesians to Java. The re-emergence of this regional imbalance—the development of a modern industrial economy on Java, and the stagnation of the rest of the country—is causing concern (Booth, 1989).

Jakarta and its hinterland already typifies the cosmopolitan center of the country. Its drawing power receives recognition in Repelita V, where its labor force growth is projected to average 4.6 percent per annum over the duration of the Plan, more than 50 percent faster than the projected national average growth rate. Jakarta, therefore, must generate new jobs at the net rate of at least 153,400 per year, simply to keep up with demand, and without taking into account the need to adjust the structure of employment in order to increase the proportion of higher-productivity jobs.

The conventional wisdom once had it that export-oriented industry was more inclined to geographic dispersion than import substitution-oriented industry, which was closely tied to local markets. This argument is perhaps true if applied to resource-based industries, but far less so for the kinds of modern manufacturing concerns whose priorities include high-level financial and business services. Although Jakarta's share of these high-level services possibly is declining slightly, its overall dominance of producer services provides a serious incentive for both domestic and foreign firms to locate within striking distance, at least for the next few years.

Post-Industrial Jakarta

Is Jakarta a post-industrial city? It has already developed a very large and sophisticated services sector, and dominates Indonesia in this respect. The sector as a whole provides three quarters of the jobs in Jakarta, and large parts of it are characterized by high levels of productivity and strong long-term growth (but stagnating in the last few years). It is this growth which leads to speculation about its post-industrial nature. Yet the industrial sector—while starting from a small base—is expanding rapidly, with employment growing at six times the rate of the services sector. As Castles (1989) says, "it is possible that in response to declining oil revenues, a major industrial expansion, partly export-oriented, will give Jakarta (or at least the Jakarta region) its conventional industrial stage in the coming decades."

It seems pointless to conclude that Jakarta is or is not a post-industrial city. What is more important is that parts of the services sector (producer services in particular) have been maturing in the last few years and, following the new directions being charted by economic policy, will continue to do so. As Jakarta's satellites develop in the Botabek region— attracting more industry along with the overspill of residential suburbs from the city— we might anticipate a greater degree

of relocation of the producer services firms currently concentrated in Central and South Jakarta. The post-industrial structures of the city are determining its industrial future.

A Global City?

Is Jakarta becoming a global city? Indonesia's economic planners and politicians are fostering the international role of Jakarta. Transport, communications, hotels, financial reforms, and expansion of producer services will all enhance the city's ability to attract businessmen and investment from abroad. By improving the cost competitiveness of the city, it will also facilitate the development of non-oil exports.

Therefore, while Jakarta is internationalizing, it cannot be called a global city. That is, the role being reinforced is the further integration of the Indonesian and international economy. But Jakarta is nowhere near developing the kind of global role that Singapore has, or even the regional role of a city such as Bangkok. For the immediate future, its main function is to improve the economic links between Indonesia and the rest of the world, while building its central-place services, enhancing its industrial base, and consolidating its position in the domestic economy.

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CHAPTER 17

TIANJIN'S URBAN DEVELOPMENT AND THE OPEN DOOR

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INTRODUCTION

Tianjin has long been a city that relies on international trade and investment for its economic development, from its days as an entrepot for inland regions in northern China, through its division by imperial powers into different quarters for trade, plunder, and the search for Christian souls (Hershatter, 1986), to its recent special economic privileges as one of China's fourteen 'open door' coastal cities (see Figures 17-1 and 17-2). This economic development has drawn population growth. In 1987, Tianjin municipality held 8.29 million people, and Tianjin proper, the old contiguous city, 3.45 million.

Though the national and municipal governments support the continued economic development of Tianjin, national urban policy seeks to restrict the growth of large cities. Accordingly, Tianjin's economic plan is to restructure its economy and increase the share of the tertiary sector. Its urban plan makes provision for the relocation of factories and people out of Tianjin proper to satellite cities, limiting the growth of the inner city in particular.

Both the economic and the urban plan rely on the continuation of the national program of economic reform. Even with that program, there have been tensions and contradictions, particularly the potential urban growth pressures of successful economic policy (especially if, and perhaps when, labor market and residential location controls are relaxed), and the diversion of investment from directly productive activities. But without the previous full program of economic reform and with the current policy of economic austerity, the contradictions are becoming sharper. A national policy that discourages the domestic private sector, that causes a sharp drop in foreign investment, and that results in a more inward-looking economy must call into question the fundamentals of Tianjin's urban plan and construction program.

Tianjin's role as an open door to the Pacific Rim is at stake. It is particularly well located with respect to the development of northern China and gateway to Beijing on one side, and the fast-growing markets of Japan, Korea, and the rest of the Pacific on the other side. However, the interdependencies for the other Pacific cities described in other chapters remain for Tianjin an unrealized potential. This chapter examines Tianjin's economic activities and China's economic policy as

Figure 17-1

China's 'Coastal Open Cities'

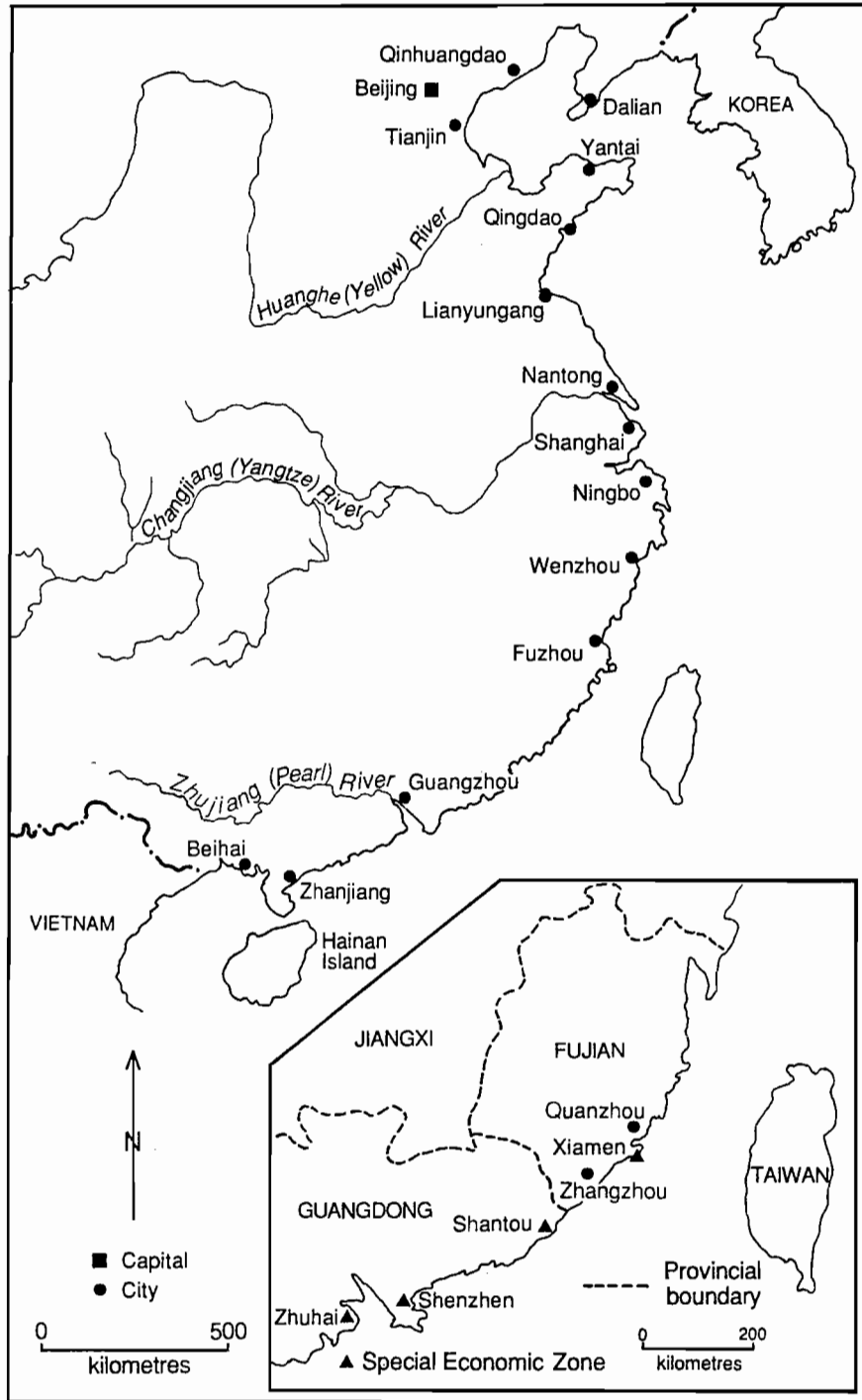
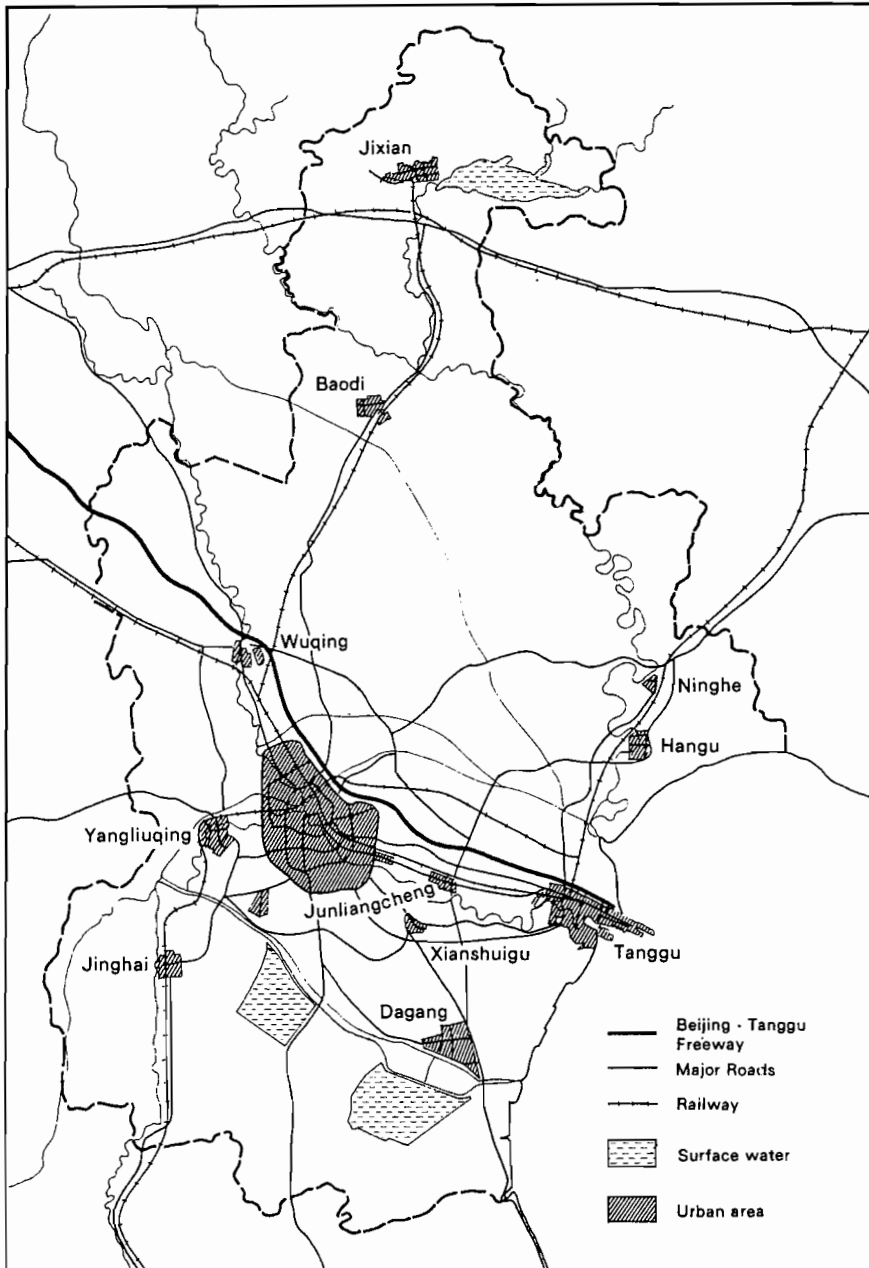


Figure 17-2

Gianjin Municipality: Urban Areas



they relate to Tianjin, reviews Tianjin's urban plan and its urban infrastructure programs, and discusses the relationship between economic policy and urban development policy as it evolves.

TIANJIN AND CHINA'S ECONOMIC POLICY

Strategic Location

Tianjin occupies a strategic location in modern China, being the nearest port to Beijing, the center of one of the most economically advanced regions in the country— the Jing-Jin-Tang area (Beijing-Tianjin-Tangshan) —the focus of many interregional transport routes, and a very large port (the second-largest in China in terms of cargo-handling capacity) for a hinterland that extends deep into northern China. Its strategic international position at the head of Bohai Bay, leading to the Korean peninsula and Japan, has long been recognized, and recently reinforced, as a factor in economic policy. Tianjin has long been a port and center for Pacific trade, with a vigorous entrepreneurial culture that does away with the slower subtleties of more traditional regions.

Though Tianjin municipality contains less than 1 percent of China's population, it is a major force in industry and resources. In 1987, it produced around 2.94 percent of the country's gross value of industrial output, third behind Shanghai and Liaoning. The main branches of industry are chemicals, machine building, textiles, and metallurgy, though Tianjin is also a major center of higher education, science, and technology, with leadership in computers, lasers, new materials development, new energy sources, and oceanography.

Regional Economic Policy and the 'Special Economic Zones'

Since 1979, at an uneven but fast pace, China has been pursuing a program of economic reform, first in rural areas, then in urban areas; even into 1991 economic development has remained a high priority, though the pace of institutional reform has slowed dramatically. Urban economic reforms have been aimed at raising living standards through modernization of the economy, the introduction of material incentives for individuals and work units, the separation of Party from economic and production management, strong constraints on population growth, growth of the private sector alongside state and communal sectors, and the opening of opportunities for foreign trade and investment. In Zhao Ziyang's words (1985),

In opening to the outside world, our guideline is not to retreat from the open policy, but to press ahead with it. We will not stop where we are, but keep going forward. China's already opened door will open still wider. China will never close its door again.

This policy has been remarkably successful, and continued in rhetoric, though not in reform practice, by the present administration of Li Peng. The share of trade in GDP more than tripled over

the 1980s. China is now among the top five trading nations in the Pacific region and deals extensively with all its neighbors in the northeast Asia region (Segal, 1990).

Regional economic policy has been a particularly strong feature of the open-door policy. Four 'special economic zones' (now five SEZs) were established from 1979 to introduce foreign capital and technology, to promote competition among regions and industries, to absorb foreign exchange and filter it through to other regions, to serve as experiments in economic structural reform and market-led production, and to employ young people 'waiting for jobs' (i.e., unemployed) (Stoltenbery, 1984). The concept of promoting special zones in China for foreign-linked economic development derives from 19th century treaty ports such as Tianjin and the special export commodity production bases promoted by Zhou En Lai, then established in 1971 (Pattison, 1981).

As well as establishing the SEZs, which became a direct responsibility of central government, and which attracted massive infrastructure investment and attractive development incentives, the government nominated fourteen coastal cities in 1984 to allow provinces to pursue similar objectives with their own resources and with some of the privileges of SEZs. Tianjin is prominent among them, with a higher share of its production being exported and with higher levels of foreign investment, related to fixed capital investment, than Shanghai or Guangzhou, cities often regarded as being more exposed to international trade and investment (see Table 17-1). The nominated coastal cities were given greater power to approve projects financed by foreign capital, up to a limit of US \$3 million for productive activities outside the state-planned sector, and without limit for non-productive projects, i.e., infrastructure. Customs duties, taxes on imported products, and value-added taxes were exempted on key equipment and materials, with income tax reduced for foreign investors and eliminated for remitted foreign profits.

Tianjin enthusiastically embraced the 'open door' policy. Since 1949, its economic development had been hindered by too many administrative changes, including boundary changes to put Tianjin in and out of Hebei province, and by being overshadowed by nearby Beijing's growth and status. Then, once given the status of a province, which it still retains, Tianjin acted quickly to take advantage of the economic reforms. Two dynamic mayors gave Tianjin a better head start over Shanghai, concentrating its resources — including World Bank loans for port development — on the little-regulated urban construction sector. The 1976 Tangshan earthquake brought massive central government assistance with housing and transport redevelopment, and establishments were required to pay developer contributions for roads and other urban infrastructure they were using. To guide this construction, an urban plan was quickly prepared.

The 1986-1990 Five-Year Plan

In the five-year plan just completed for 1986-1990, urban construction figured prominently, not only as a means of facilitating growth (too much of which was discouraged by national policy),

Table 17-1**Economic Indicators for Fourteen Coastal Cities, China, 1987**

	Population (1985) (cities proper) (<u>'000</u>)	Industrial output (<u>mn yuan</u>)	Fixed capital investment (<u>mn/mn</u>)	Value of Exports (<u>mn yuan</u>)	Foreign investment (<u>\$US mn</u>)
Tianjin	5,380	37,230	12,660	5,440	361.79
Dalian	1,630	13,260	4,810	2,560	270.11
Qinhuangdao	440	1,750	1,040	160	2.19
Yantai	720	9,550	2,590	1,170	9.00
Qingdao	1,250	15,680	3,330	1,730	43.56
Lianyungang	460	3,460	830	320	8.89
Nantong	410	13,490	1,560	1,490	17.79
Shanghai	6,980	97,970	32,510	15,410	485.68
Ningbo	1,020	1,630	2,320	1,070	9.81
Wenzhou	530	6,030	510	440	1.08
Fuzhou	1,190	6,440	1,480	520	34.64
Guangzhou	3,290	21,490	6,190	3,180	86.47
Zhanjiang	920	3,060	1,030	450	22.66
Beihai	180	620	190	20	1.33
Total	19,020	248,360	71,060	34,170	1,355.14

Source: China, State Bureau of Statistics, China Statistical Yearbook, China Statistics Publishing House, Beijing, 1988.

but also a way of restructuring Tianjin's urban form. To attain growth in the value of output of 6 percent per annum, manufacturing industries with comparative advantage were favored: automobiles, energy, electronics, chemicals, high-quality steel, metal products, new building materials, consumer durables, clothing, fabrics, and food. By 1990, advanced-technology industries were to account for 23.1 percent of output, cf. 18.8 percent in 1986. Manufacturing was to be relocated outside Tianjin proper in three concentrations along the Haihe River: a woolen and textiles complex on the south bank, a steel and copper plant on the north bank, and a chemical complex further to the east at Tanggu and Hangu (see Figure 17-2). The new five-year plan (1991-1995) is expected to continue these industrial emphases despite a return to prominence of state industries.

To the north of Tanggu, site of a very large World Bank-financed port redevelopment, a mini-SEZ was established, the Tianjin Economic Development Area (TEDA) (Figure 17-3). Located on flat saline landfill, TEDA is being transformed into an advanced technology park, with light manufacturing, commercial, and residential development, including a western-style suburb for foreign technicians and managers. In recognition of severe water supply and water quality problems, the five-year plan also included expansion of water supply capacity, drainage, and sewerage works. Five power plant projects and efforts to tap and reticulate natural gas supplies are designed to address energy supply problems and, by replacement of coal for domestic and industrial use, serious air pollution problems. Industries that heavily use water and energy are discouraged in Tianjin proper, given the shortages of those resources.

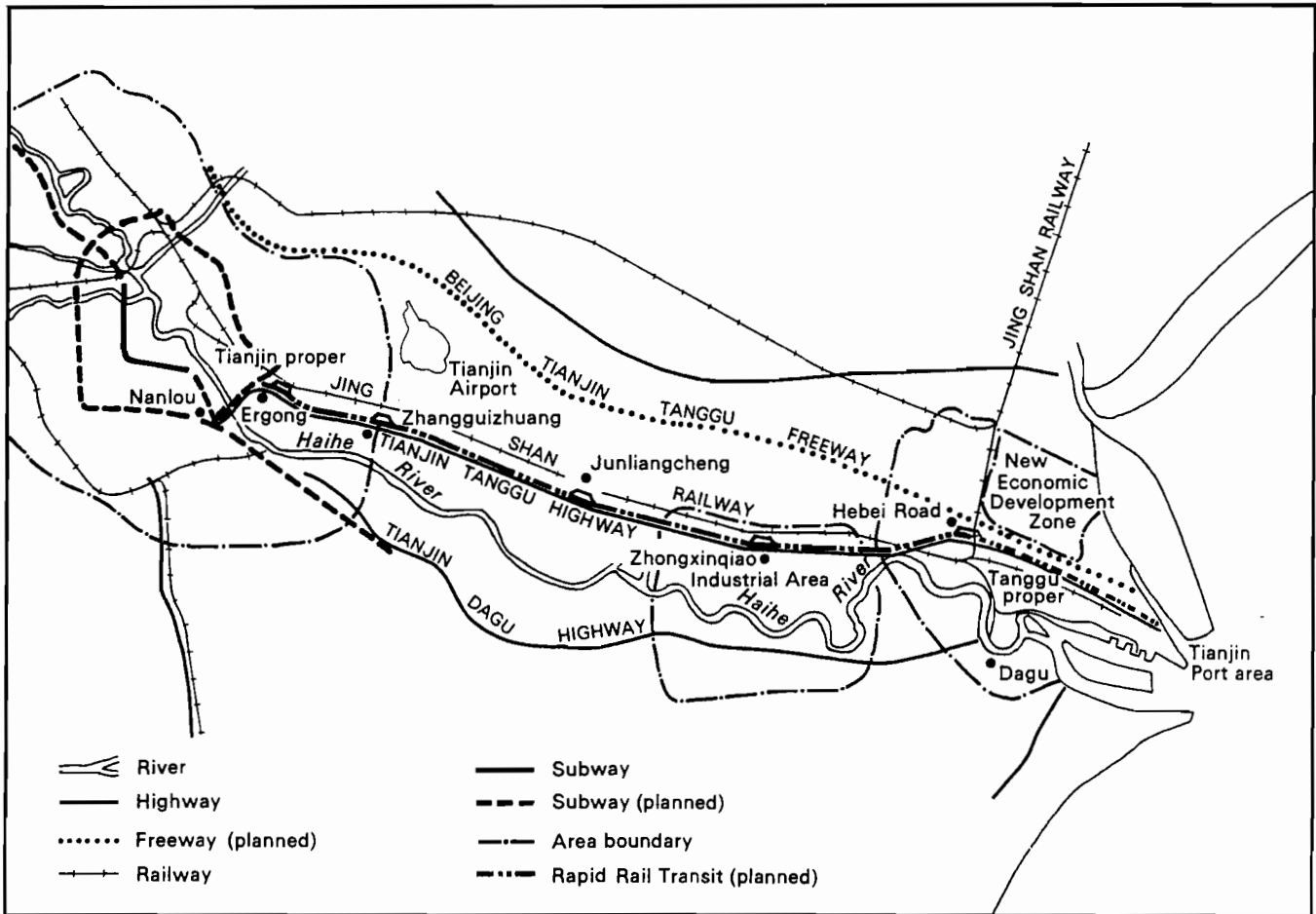
Major air, land, and sea transport improvements are planned as part of the open door policy to link Tianjin inland and overseas. At its heart, the plan was designed to raise living standards through 5 percent per annum real increase in purchasing power, new housing, and an enormous increase in scientific, educational, and technological investment. The latter measures, combined with the 'open door' policies, were designed to increase tertiary industries' share of output from 27.2 percent in 1985 to 31 percent in 1990.

TIANJIN'S ECONOMIC PERFORMANCE

Now that the five-year planning period has finished, how did Tianjin's economy perform over the period? Though Tianjin's share of national population has barely changed (from 0.766 to 0.767 percent between 1981 and 1987), its share of national industrial output dropped from 3.85 percent to 2.94 percent. In part, this reflects vigorous industrial development in small towns and medium-sized cities. But even among the fourteen coastal cities, where Tianjin's population and economy are second-largest after Shanghai, per capita industrial output has remained low (see Table 17-1). Likewise, export value per capita and foreign investment per capita have been lower than average, while the share of industrial output that is exported has been high, notwithstanding a higher-than-average ratio of foreign investment to fixed capital. Smaller designated coastal cities,

Figure 17-3

Tianjin-Tanggu Transport Corridor



without Tianjin's often outmoded industrial plant, appear to have performed better, though such comparisons need to take account of different economic structures.

Trade and the Rise of the Tertiary Sector

Tianjin's economic structure has indeed changed in the direction planned, with very substantial relative decline in manufacturing and rises in tertiary investment and employment. Given labor market rigidities, structural changes to investment are stronger than to employment. Though Tianjin's international sector comprises a smaller share of its economy than the average of the coastal cities, in absolute size it is very large. The composition of exports from and through Tianjin has shifted from farm products to manufacturing, in general, and to textiles, machinery, chemical products, and electronics in particular (The Editorial Board, 1985). Export destinations were dominated by Pacific destinations, with Hong Kong (16.5 percent of value in 1987), Japan (14.3 percent), and the USA (11.0 percent) followed by West European and Singapore destinations. By the same year, foreign investment, valued at \$US 113.4 million direct and indirect, in 230 projects or enterprises, came from sixteen countries, 40 percent from Hong Kong and 22 percent from the USA, followed by Japan, Singapore, Canada, France, and Australia. Structural change in capital investment and employment are shown in Figures 17-4 and 17-5.

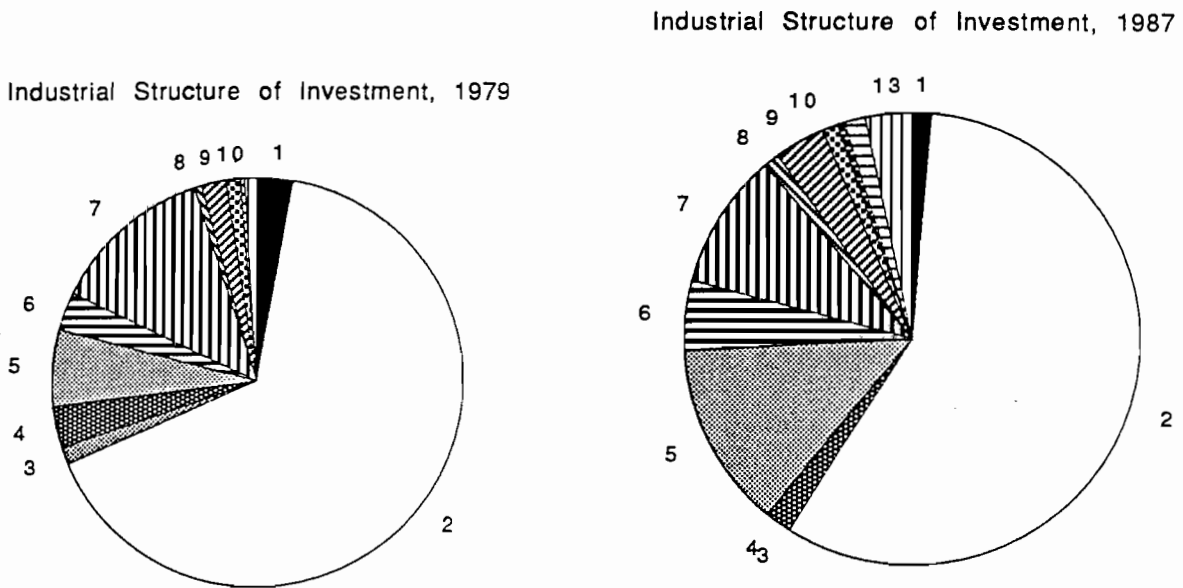
Technology-intensive industries have made little impact on Tianjin's trade-exposed economy, but it is too early to evaluate success yet. TEDA has attracted 154 joint ventures with an investment of US \$280 mn, 52 percent from overseas. From production worth US \$212.7 mn, \$120 mn have been exported. Given Tianjin's old fixed investment, it is no surprise that per capita productivity at TEDA is three times the municipal average. Its US\$ 17 mn take of profits tax ranked TEDA the best development area of the fourteen coastal cities. "Investors are our Emperor," states the Chairman of TEDA, "and projects are the lifeblood of the area" (Chen, 1989).

Post-Tiananmen Deterioration

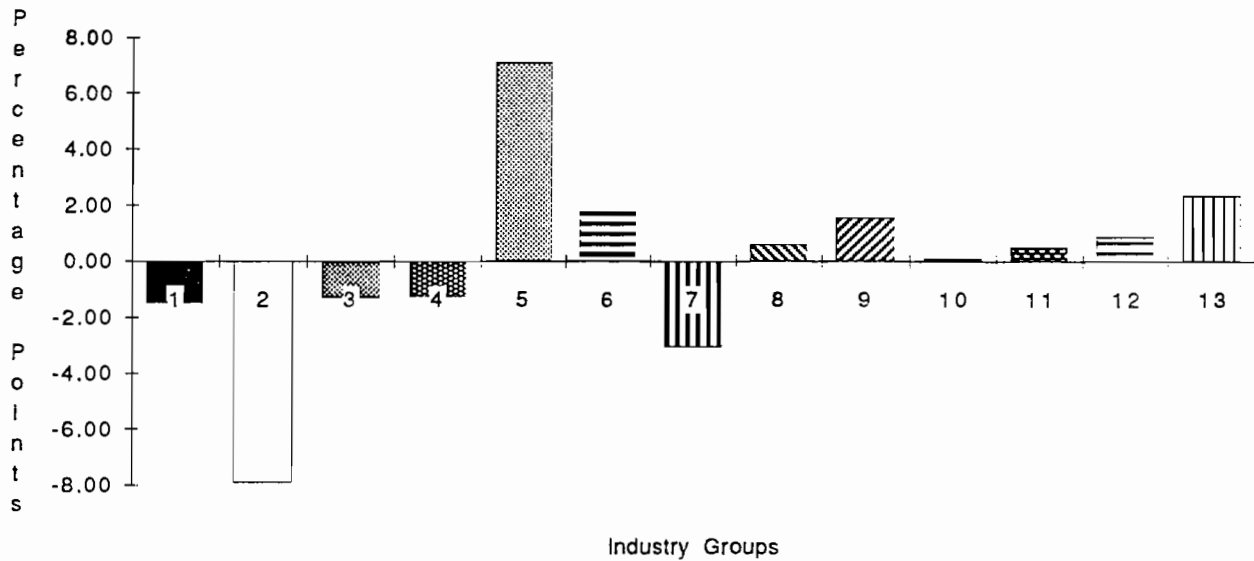
However, since the 'Tiananmen incident' of June 1989, economic conditions have deteriorated, national economic policy has changed, and Tianjin's open-door economy has suffered. Foreign investment has fallen dramatically (notwithstanding news of a possible US hotel development in TEDA). A national austerity policy has been put in place, so that funds for non-productive investment (including especially urban infrastructure, already reduced in 1988-89) and private-sector activities have been cut back badly. The Beijing-Tianjin-Tanggu freeway, China's first interurban freeway, is still going ahead. State enterprises are favored and many have been brought back into the planned economy despite a lack of planning capability. Price controls are rapidly replacing market price-setting, and the international open door, avowedly still open, appears to be swinging shut.

Figure 17-4

**Industrial Structure of Investment in Fixed Assets,
Tianjin, 1979 and 1987**



Structural Change in Investment, 1979 to 1987

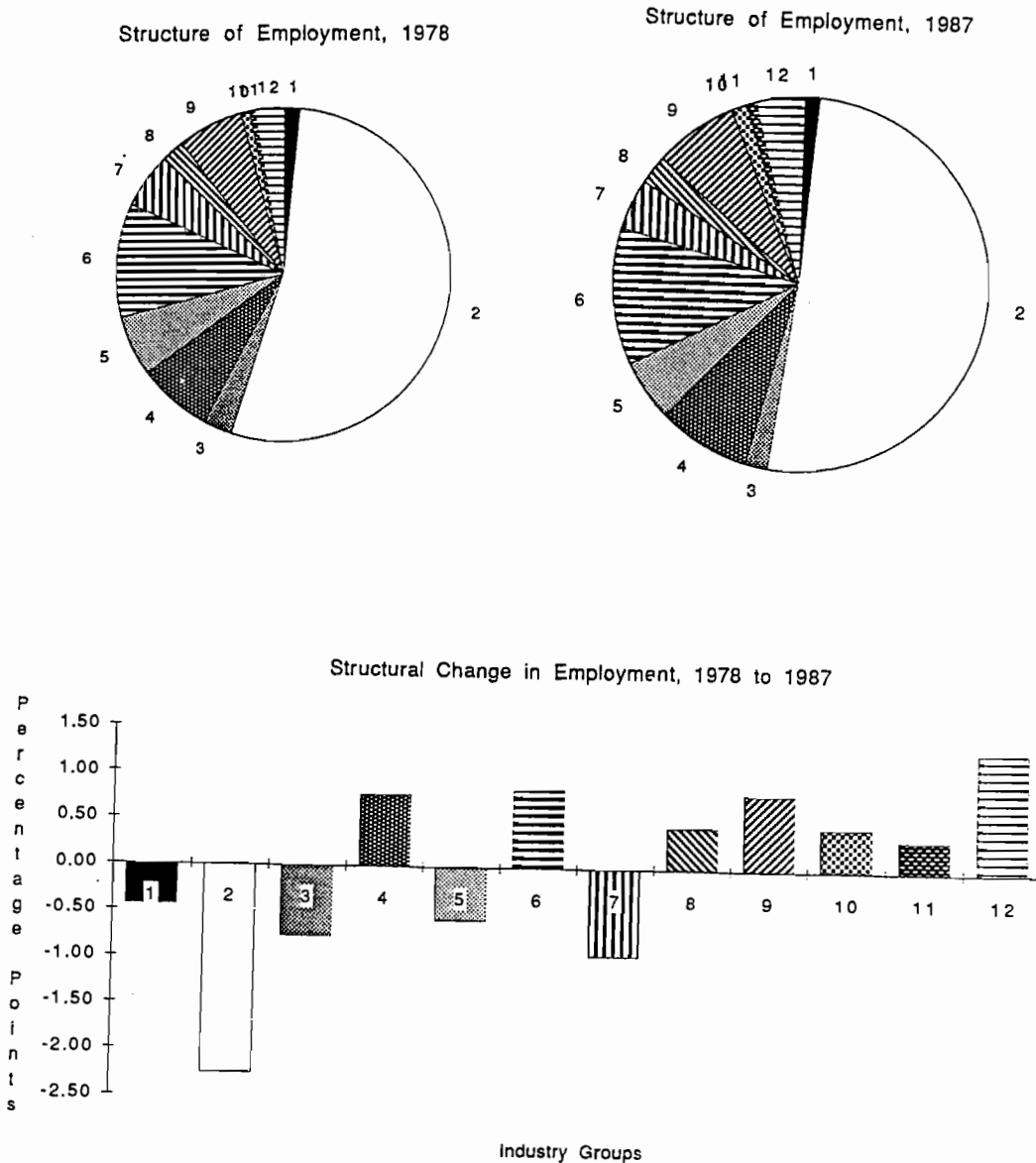


Key:

- 1:** Agriculture, forestry, animal husbandry, fishery, and water conservancy.
- 2:** Industry.
- 3:** Geological survey and exploration.
- 4:** Construction.
- 5:** Transportation, post, and telecommunication.
- 6:** Commerce, catering trade, service trade, supply, and marketing of materials and warehouses.
- 7:** Real estate administration, public utilities, residential service, and consultancy service.
- 8:** Public health, sport, and social welfare.
- 9:** Education, culture.

Figure 17-5

Industrial Structure of Employment, Investment in Fixed Assets, 1978 and 1987



Key:

- 1:** Agriculture, forestry, animal husbandry, fishery, and water conservancy.
- 2:** Industry.
- 3:** Geological survey and exploration.
- 4:** Construction.
- 5:** Transportation, post, and telecommunication.
- 6:** Commerce, catering trade, service trade, supply, and marketing of materials and warehouses.
- 7:** Real estate administration, public utilities, residential service, and consultancy service.
- 8:** Public health, sport, and social welfare.
- 9:** Education, culture.

Source: Tianjin Statistical Bureau (1988), Tianjin Statistical Yearbook, Beijing: China Statistics Publishing House.

If true — and evidence is sketchy — then trends and policy changes have very serious implications for Tianjin's role as a Pacific-Rim city. A new open-door policy for China, recently formed by the State Council, is to concentrate on three open areas: the two central areas of the Pearl River Delta (including Guangzhou, Shenzhou, Zhuhai, and some cities and countries in the Delta); Bao Hai Rim (around Tianjin); and one inland, the North-Western Open Area (around Xinjiang) (Wenhui Daily, 22 Jan 1989). Those three areas are aimed at Hong Kong, Macao, and Southeastern Asia; Japan and Korea; and USSR and the Middle East, respectively. The main change to regional economic policy is to focus, once again, on the Eurasian continent (as the 'middle kingdom') and to de-emphasize Pacific connections.

Given that Tianjin's economic plan and its urban plan were, despite stresses and contradictions, aimed at an open-door economy towards the Pacific region, what do these changes portend for Tianjin's urban structure and urban and regional planning?

TIANJIN'S URBAN DEVELOPMENT

Growth Despite National Policy

Tianjin's urban growth has continued unabated, despite national policy to limit large-city size. As the city with the greatest foreign domination, Tianjin grew very quickly through the 19th and early 20th centuries. Its strong growth has continued since liberation. The municipality's population was 8.39 million in 1988, 66 percent of whom were in the city proper and 3.5 million of whom were concentrated in the 154 km² of Tianjin city. This has produced an average density of 22,729 persons/km², rising to 49,673 persons/km² in the central Heping District. These densities are increasing over time.

Between 1976 and 1982, the population of Tianjin city grew by 590,000, as compared to 980,000 for Beijing city. While natural increase is under control and is expected to decline from the 1990s to a replacement rate by the end of the century, net in-migration has continued since 1980 at the rate of 20,000 persons per annum. Enterprises, institutions, and households will continue to try to locate in Tianjin, perhaps in greater numbers as Tianjin specializes more in tertiary occupations, for which a degree of labor migration deregulation occurred before the June 1989 events and may increase in the future if reform is returned. Moreover, the success of the rural farm development program has been greater near urban cash markets, so farmers are tending to relocate to suburban districts, thereby swelling the population of the city and pressures on urban services.

The Urban Planning Bureau anticipates a 3.8 million population limit to Tianjin's growth by year 2000, and a total municipal population of 9.5 million by then.

Uncoordinated Expansion

The pattern of urban growth has been that of uncoordinated expansion from the old Chinese sector and from the various foreign quarters. Rapid suburbanization of employment and associated

housing occurred after liberation with little attention paid to the urban environment or environmental quality. 'Workers' new villages' were built alongside their factories in a haphazard fashion in the suburbs during the 1950s. The 1976 Tangshan earthquake, in addition to killing approximately 30,000 residents, destroyed or damaged much of the old building stock; since then there has been a concerted effort to rebuild in the suburbs and rehouse the population at higher standards.

The pattern of residential development has become higher-density and more compact, as the Housing Bureau takes over construction and management functions hitherto the responsibility of the various work units, and as inner-city urban renewal replaces old housing. With this change has come a better standard of urban planning, greater concern for environmental quality, and stronger interest in comprehensive urban renewal now that the space available for urban expansion has become very limited. Central government spending on urban construction in Tianjin has tended to be much higher per capita than cities such as Shanghai and Beijing due to earthquake compensation and the very active political leadership of Tianjin.

Impacts of National Reforms

Recent national reforms of the economic structure had a major impact on Tianjin's urban planning and management. Administrative agencies such as the Housing and Land Management Bureau were being more clearly separated in structure and function from new enterprises such as the Tianjin Construction Development Corporation. The latter were given more scope to make profits, but are now constrained. Government organizations had more scope to manage the economy and plan the city's development. In addition to 9,000 collective enterprises, Tianjin had over 100,000 household-run enterprises in 1988, most of them in the service trades and most of them established with help from district governments and neighborhood cities.

The extension of the economic responsibility system to urban industries, widening the market sector, and creating greater opportunities for prices to reflect real costs would have changed the urban planning and management system radically, since Tianjin was in the forefront of implementing national policies and reforms. That is now in doubt as China attempts to return to a more orthodox centrally planned economy.

The current policy status of Tianjin is not one that permits strong urban growth commensurate with the prospects for economic growth prospects. China's national urban policy seeks to strictly limit the growth of large cities and to encourage the growth of medium-sized cities and small towns in rural areas (Ye, 1985). Tianjin city is China's third-largest city. Its urban planning is based on the containment of city population at 3.8 million by the year 2000, its physical encirclement by a green belt, and the relocation of 200,000 people to Tanggu by year 2000. With continued inter-regional controls over enterprise location and residential locale, China may be more successful than other socialist or third world cities at limiting city size, but one can confidently predict

increasing international pressure to deregulate the labor market (World Bank, 1985) and, if reforms are resumed, increasing popular pressure. Whether the whole municipality is caught under the policy of limiting large city size is not clear: the population forecast of 9.5 million for the municipality as a whole, by the year 2000, appears to indicate such a constraint; however, the designation of five satellite cities, including Tanggu at 600,000 people by the year 2000, indicates an intention to decentralize industrial development within the municipality and perhaps to continue to draw internal migrants to the municipality. The apparently ambiguous policy status of Tianjin city and municipality lies at the center of regional and urban planning problems.

URBAN PLANNING IN TIANJIN

The designation of the eight main urban areas in Tianjin as satellite cities is intended to attract industrial development and population growth away from Tianjin city. However, apart from the Tanggu corridor and its two flanking urban areas of Dagang and Hangu, there is little indication of policies or programs to implement the broader satellite cities concept.

For example, in 1984 only 7.5 percent of the investment in capital construction by state-owned units in Tianjin municipality was outside Tianjin city; only 0.1 percent of that by collective units was outside Tianjin city. Given the competing strategic planning concept of a Tianjin-Tanggu corridor, or 'T', the apparent neglect of the broader satellite city concept is not a bad thing. The coordinated urban development of Tianjin and Tanggu, and the linkages between them, is an extremely difficult task on its own.

Tianjin-Tanggu Corridor

The plan for a corridor linking Tianjin with Tanggu is the core of regional planning in the municipality. A land use and transport plan at this scale is part of the comprehensive urban plan adopted by Tianjin government. An outline of the plan is shown in Figure 17-3. Its principle is the creation of a large port and industrial complex at Tanggu by year 2000, with major new commercial, technological development and residential areas, and the simultaneous restraint on the growth of Tianjin city as described below. Tanggu will double in size from 300,000 to 600,000 by year 2000, with 200,000 people relocated from Tianjin city and another 100,000 people attracted from elsewhere or born in Tanggu. Tianjin city was expected to grow very slowly, from 3.4 million people in 1986 to 3.8 million by 2000, but this number has already been exceeded. Tianjin and Tanggu will be linked by highway, freeway, river, and possibly a light-rail mass rapid transit system. They will be separated by greenbelts with open space, agricultural, and horticultural areas, to maintain and increase food production. The corridor will be part of the larger gateway to Beijing and much of north China. At the coast the pattern of development will tend towards north-south, to absorb

the small centers of Dagang and Hangu into the conurbation. North-south rail bypass routes will emphasize this 'T' shape.

This plan raises a number of issues. The method of relocating 200,000 people from Tianjin city to Tanggu, and their satisfaction with their new destination, will need to be carefully handled. The administration of TEDA (the Tianjin Economic-Technological Development Area) appears to be relying on job opportunities and education incentives. If in the future an 'open door' policy is to be associated with freer workplace and residential location— as skilled-job categories have been since the 1984 economic reforms — then it would seem as if Tanggu is not yet a sufficiently attractive place, notwithstanding the impressive economic and construction performance of TEDA over its few years of existence. The experience of other satellite cities in China (e.g. Ming Hang in Shanghai) has shown that many people prefer to remain with family and friends in the old city and commute daily or weekly. If this were to happen in Tianjin it would place even more severe strains on the public transport system than anticipated. Moreover, the provision of adequate human and cultural services to satellite cities elsewhere in China has been difficult, and for the relocation strategy to work between Tianjin and Tanggu, attention would need to be given to this potential problem at an early stage.

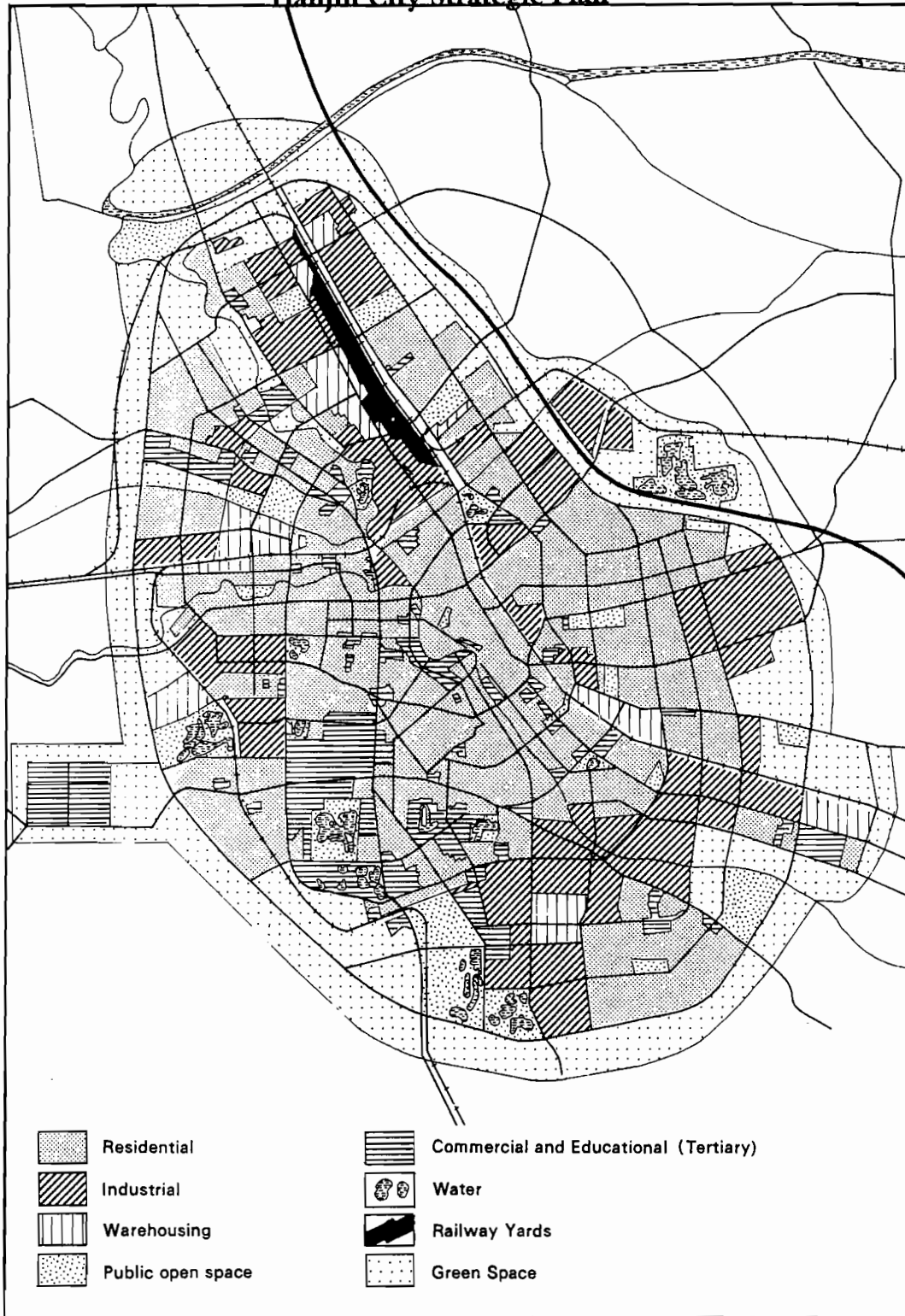
A second question relates to the planning of transportation for the corridor, a key element to the realization of the inter-regional benefits of the 'open-door' policy. It would appear as if each mode has been planned and developed somewhat separately, not with rigorous economic evaluation of inter-modal competition or full technical evaluation of alternative modes and technology. For example, work on the mass rapid transit system could usefully compare the economics of competing bus services on highway or freeway, including bus-only lanes or independent rights of way. Such a comparison could evaluate alternative pricing strategies, in turn related to sources of funds for freeway and mass rapid transit systems. Other means, such as the partial suburban electrification of the national railway line, or the construction of a passenger track parallel to that line, could also be usefully investigated. The ways in which the transport system links the cities, and in turn changes their form, could be investigated more closely. Potential savings in investment and operating efficiency could be made in the future, while avoiding future rigidities in the urban system and consequential social and economic problems. In other words, the success of the corridor or 'T' plan hinges on the efficiency and effectiveness of the transport linkage between the two cities.

Elements of the Plan

The comprehensive urban plan for Tianjin is illustrated in Figure 17-6 and Table 17-2. Its elements are common to those of other large cities in China: a greenbelt encircling the city; inner, middle, and outer ring roads; dispersal of tertiary activities; designation of advanced technology areas; deconcentration of inner-city residential areas; and an expansion of the underground railway

Figure 17-6

Tianjin City Strategic Plan



Source: Tianjin 1985: 116.

Table 17-2

Summary of Elements of Tianjin City Strategy Plan

<u>Field</u>	<u>Criterion</u>	<u>Unit</u>	<u>Target</u>	
			<u>1990</u>	<u>2000</u>
Transport	Area of road/person	m ²	3.0	4.1
	Area covered by roads	%	4.9	5.0
	Length of underground railway	km	14.6	27.5
	Network density of public roads	km/km ²	2.0	2.5
Water Supply	Capacity	m ³ x 10,000/day	220.0	300.0
	Standard of use	m ³ /person-day	220.0	250.0
	Underground pipes	%	83.0	95.0
Green cover	Land in green cover	%	15.0	17.0
	Public open space	m ² /person	2.0	3.8
Gas	Domestic gas use	%	70.0	98.0
Housing	Residential space	m ² /person	7.0	9.0
Telephones	Telephone connections	per 100 persons	3.4	10.0
Postal	Value of business	RMBY 10,000	5,900	13,400

Source: Tianjin Urban and Rural Construction Commission, 1984: 10.

system. However, the plan has features special to Tianjin: treatment of the old foreign concession areas; a larger program of suburban housing development due to the legacy of the 1976 earthquake; and provision for light, not heavy, industry. The overall plan is made up of different elements such as environmental protection, housing, transportation, and greening, each relating to five-year economic plans for implementation programs, major projects, and budgets.

Many elements of the plan are already in place, and the construction is extraordinarily fast. The middle and outer ring roads have been completed. The post-earthquake housing problem is solved and the municipality is now paying attention to raising space and construction standards, more comprehensive district planning, and more compact urban expansion at higher densities. Industrial relocation has also been occurring as production units seek approval for expansion, and as municipal government puts pressure on big polluters to clean up or be relocated. So far, this relocation has been from the inner area to suburban areas, but in the future these moves will be to Tanggu and possible other satellite cities. The green belt does not yet exist, but lands are designated for open space and orchards. Trees have been planted in some parts of the belt. Elaborate traffic interchanges, a good traffic light system, and traffic segregation arrangements have been installed. There was, until the present economic crisis, a boom in the construction of offices, hotels, restaurants, and other buildings, and a successful rehabilitation and redevelopment of an 'ancient culture street.' In short, the very fast pace of capital construction had been bringing about early implementation of the physical aspects of the urban plan, but has slowed down considerably since capital construction has been cut back.

Tanggu and the Tianjin Economic-Technological Development Areas

The comprehensive urban plan for Tianjin gives attention to the development of Tanggu and, given its centrality to the regional strategy, further analysis here is warranted. Tanggu is a small industrial and port city with housing of very mixed standard, congested interlocking transport routes, a major problem with saline lands and environmental pollution, and land subsidence due to underground water depletion. Expansion of the port and the nearby economic development area is already transforming this city. A staged expansion of massive scale will add many more berths, iron and steel and petrochemical facilities, and new freshwater port facilities for river traffic on the Haihe River. The current stage, part of the 1986-1990 five-year plan, is estimated to cost US\$2,000m and will be partly financed by World Bank loans. The impression given by present work in progress is that the rail and road transport systems are insufficiently segregated and that new port workers' housing, though of much higher standard than traditional and early post-liberation housing, will need to be better planned and better related to employment areas.

The nearby Tianjin Economic-Technological Development Area (TEDA) also has an ambitious expansion program based on manufacturing but including suburbs, research and development

zones, and other areas. The plan for the first stages is shown in Figure 17-7. Up to 33km² of ex-saltpan land is being developed in stages. The first 3km² is being developed over three years for a projected 100-150 enterprises with 30,000 workforce and 2.4 bn yuan industrial output. Targeted industries for the 'starting area' are small to medium enterprises in the following industries: electronics, new energy resources, optical communication, fine chemicals, offshore oil exploration, food industries, paper mills and printing, instruments and assembly, building materials, and daily consumer goods. As the key part of Tianjin's 'open door' policy for economic expansion, TEDA has preferential access to infrastructure finance and, in turn, offers preferential treatment to offshore investors. Whether TEDA is successful over the long term remains to be seen, but in the first four years of operation (1984-1988), agreements were signed for 131 projects valued at about US\$185m².

The strategic relocation of industrial and urban growth from Tianjin city to Tanggu depends vitally on the success of the port development and TEDA and how the emerging urban area at Tanggu is integrated. While the components of this area are likely to be well planned and executed, the overall integration of physical, economic, and social development in Tanggu will also need close attention.

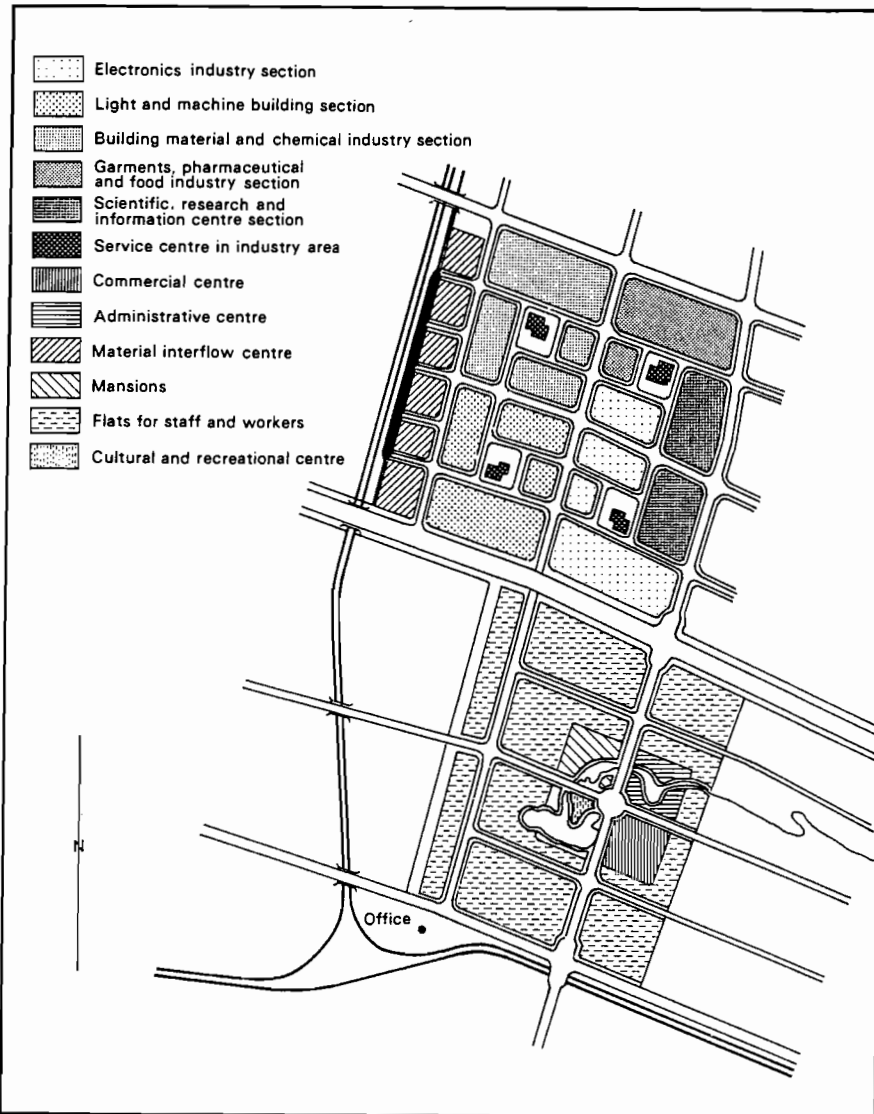
Ambiguous Status of Tianjin Nationally

The status of Tianjin in national urban policy is ambiguous and is unlikely to be clarified until a more detailed national urbanization policy or national land use plan is formulated. The concepts that guide the regional development strategy for Tianjin are perhaps overly ambitious, especially in the light of the readjustment, consolidation, and restructuring envisaged for Tianjin in the new five-year plan. In particular, the accelerated development of any satellite cities beyond Tanggu could be abandoned without detriment to the objective of limiting Tianjin city's growth, and without detriment to the good planning of smaller urban and rural settlements in the municipality.

The impact of the recent economic reforms and their curtailment, the emergence of housing and land development enterprises, the institutionalization of laws and regulations governing urban development among other activities, and the impact of variably used 'open-door' policies will all change the system of urban management in fundamental ways. The constraints on urban construction finances and other resources will make the programming of urban infrastructure and services, including human services like health and education, a more important area of emphasis in planning than they would otherwise be. Tianjin's massive rehousing program, successful as it has been, will need readjustment as economic conditions widen the variety of households and lifestyles and the range of accommodation types demanded (Zhon Ganzhi, 1985), as well as the standards of space and design. Having overcome so much of its housing backlog, Tianjin could take the opportunity to lead China in finding a style of urban renewal that enhances the city's history and old housing stock as well as enabling urban containment to occur at relatively high densities.

Figure 17-7

Tianjin Economic-Technological Development Area Plan



Source: Tianjin Administrative Commission of Tianjin Economic-Technological Development Area 1985: 14.

AN 'OPEN DOOR' FUTURE?

Tianjin's economic development has been prone to the fluctuations of regional economic policy in China and the regional effects of geopolitical developments. Post-war policy downgraded Tianjin's outward stance as a vestige of imperialism, concentrating instead on inland development. Even the changes of policy after 1978 kept Tianjin's potential back, overshadowed by Beijing's attraction of tertiary industries and other development priorities. Success at urban construction, especially housing, roads, and industrial development (some of it internationally exposed) did not flow on to all sectors. Tianjin still has among the lowest proportion of parkland of China's 20 cities with over a million people.

The designation as one of 14 'open-door' coastal cities targeted for economic and technological experimentation opened Tianjin to a Pacific Rim trade orientation. The city's urban development program sought to capitalize on this support through port development, a new economic development area (TEDA), construction of a transport corridor to Beijing, and plans for an ensemble of urban activities and infrastructure designed to capture high-order tertiary activities in Tianjin proper, while outmoded heavy industry and new metallurgical, textile, and petrochemical plants moved to satellite cities. A recent rationalization of regional economic policy has kept Tianjin's priority as the hub of one of four coastal regions remaining high-priority, known as the Bohai Rim. Significantly, these new priorities again include inland regions. Integrated regional economic planning with Beijing and part of Hebei Province may also help Tianjin keep some national economic priority. Current port and freeway projects have not been caught in an austerity program that has eliminated or deferred most other construction projects.

Nevertheless, the status of Tianjin in national urban policy is ambiguous, since it is both a focus for economic development and an example of an area experiencing severe population-growth restraints. Though the prospect of unplanned migration-led growth has abated with the tightening up of labor market regulation and residential permits, nevertheless perhaps a million "shadow population" occupy Tianjin, and the load on already overburdened urban services and infrastructure will not be removed with the slowed-down pace of satellite city construction.

Tianjin's urban development plans have supported its economic strategy and reflect a Pacific orientation with the "T" plan, with corridor development from the port and new coastal cities. But realization of its plans to develop a high-quality knowledge-intensive old city and to address very serious water supply, water and air quality, energy, and open space problems depend on a pace of Pacific trade and investment and national infrastructure construction that does not exist. If China's economy continues to languish in its foreign trade and investment-exposed sectors, demographic limits may indeed hold; nevertheless, it would be a cruel paradox of China's stop-start integration into the Pacific region that some of its most enterprising people, and one of its

most interesting urban development strategies, would satisfy an arbitrary city size limit through economic austerity, slow improvements to living standards, and urban environmental degradation.

ACKNOWLEDGEMENTS

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CHAPTER 18

SYDNEY: AUSTRALIA'S GATEWAY AND FINANCIAL CAPITAL

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INTRODUCTION

Australia as a nation, and its major cities and Sydney in particular, have experienced far-reaching changes over the last two decades due to the processes of internationalization. Its economy and its cities have been transformed through the deregulation of the financial system, the increasing importance of Asian-sourced foreign investment, the rise of the services sector, property booms and busts, technological innovations in transportation and telecommunications, and the growth of knowledge-based industries (Daly & Logan, 1989).

These processes have played out their interrelationships most dramatically in Sydney, the capital city of the State of New South Wales, and Australia's largest city. This chapter examines Sydney's role as Australia's 'world city,' as the nation's financial capital, and as the city that has exhibited the most dramatic changes in its urban economy and its property sector as Australia becomes increasingly linked to the Pacific Rim region. Some comparisons are made with other major cities in Australia, and reference also is made to the challenges the nation and Sydney, its 'gateway city,' face as they move into the 1990s in an increasingly competitive and uncertain world.

FUNDAMENTAL SHIFTS IN THE ECONOMY AND SOCIETY

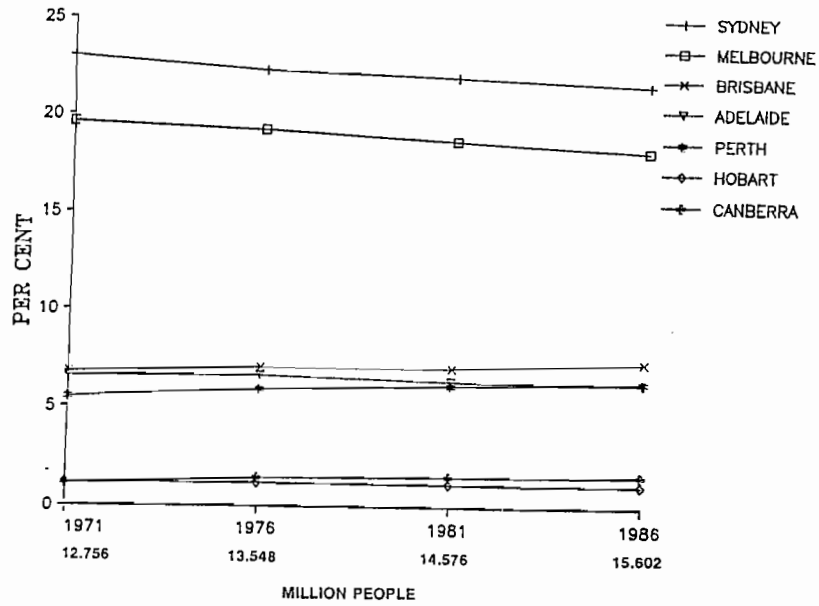
Australia is a highly urbanized nation, with its population concentrated overwhelmingly in the capital cities of its six States and two Territories. Sydney (population approaching 3.8 million) and Melbourne (population about 3.2 million) between them account for over 40 percent of the Australian population of 17.1 million, as shown in Figure 18-1.

Metropolitan primacy is a long-established characteristic of the population and settlement distribution of most States in the nation.

Following World War II, the growth of the cities was associated with rapid industrialization under policies of import substitution with high tariff protection. Large-scale immigration from the United Kingdom, Western European countries, and later from the Mediterranean countries and parts of the Middle East fuelled metropolitan growth. Technologies were imported, and the

Figure 18-1

State Capital Cities' Share of National Population



Source: ABS: Census of Population and Dwellings.
Data: Population of Statistical Divisions.

financing of industrial growth was both from foreign investment and export earnings from the agricultural, pastoral, and mining sectors. Inflation was low. Home ownership reached in excess of 70 percent. The 1950s and 1960s were years of growth and increasing prosperity.

Australia's development, and particularly that of its cities, was greatly influenced by its colonial links with Britain. Melbourne, the capital city of Victoria, was the traditional focus for commerce, banking, and company headquarters from the 19th century. It became the major manufacturing city and attracted the highest share of immigration. It was the 'old money' city, and had in fact been the seat of national government from Federation in 1901 until the new bush capital was developed in Canberra in the late 1920s. Sydney was always the largest city and the 'fast city' of the nation. Scenically beautiful with its magnificent harbor, Sydney was the site of initial colonization and was the main gateway for the nation, a role that became even more dominant after the advent of international air travel. But commercial power and industrial wealth was certainly concentrated in Melbourne.

After 1974, Australia entered a dramatic period of restructuring through the processes of internationalization that have captured the world. The nation traditionally has been reliant on international trade for its economic welfare, but that trade has been focused strongly on the relatively competitive primary sector of agriculture and mining, with a relatively uncompetitive and, in global terms, small, secondary sector that had traditionally been protected by distance and tariffs and quotas. The tertiary sector has focused on domestically oriented services and is not primarily a traded sector. However, in certain sectors—such as finance, business services, and tourism—traded activities are increasingly significant and have emerged as key international opportunities, with Sydney playing a major role.

The cities have experienced massive restructuring with a decline in manufacturing and a rise in the banking, finance, and personal services sector; in construction and tourism; and in the government and human services sectors. There has been a shift from energy-intensive manufacturing to knowledge-based production. There has been internationalization of the production process and of marketing. The banking and finance sector has been deregulated and global integration of financial markets have incorporated Australia, and in particular Sydney. The cities have experienced several building 'booms and busts' that have reshaped the Central Business Districts (CBDs) and suburban centers. There has been a trend recently towards megaprojects.

Following the creation of the European Economic Community and Britain's orientation to Europe and its joining of the EEC, the last two to three decades have seen Australia become inexorably linked with the Asian-Pacific region for its future. As Australia enters the 1990s, "the timing for internationalization is urgent, reflecting the pace of global restructuring as well as the existing imbalance in Australian trade with a \$A20 billion plus current account deficit and interest costs on overseas debt consuming over 20 percent of export increase" (Crawford, 1990a: 4). The nation's

trading partners have come to be dominated by the East and Southeast Asian regions, with two-thirds of the nation's exports going to them. It is a region where Australia is a relatively large player, and where Sydney as an emerging 'world city' is a large player, roughly equivalent to Hong Kong and Singapore.

In addition, there has been fundamental demographic structural change, including continuing low fertility rates, a shift back to higher levels of immigration in the 1980s (but from Asian, Middle East, and New Zealand sources), a decline in the nuclear family, the ageing of the population, and a significant increase in the retention and re-entry of women in the labor force.

THE RISE OF THE SERVICES SECTOR

Since 1971, Australia's growth has been based in the services sector, which has averaged 1.7 percent per year in employment growth. This growth has been concentrated in the cities. The two main growth elements have been community services, which increased from 12 percent to 18 percent of total employment by 1989; and the finance, property, and business services sector, in which employment grew from 7 percent to 12 percent. The magnitude of these shifts is evident in Figure 18-2, which indicates that over the period 1971 to 1986 there were substantial actual declines in employment in manufacturing industries; employment in the finance, property, and business services sector rose, however, by over 90 percent, community services by 97 percent, communications by 25 percent, recreation, personal, and other services by 37 percent. Daly (1988: 152) has explained that in Australia "the change took people by surprise. . . [as now] a new set of industries provided the economic base of the cities."

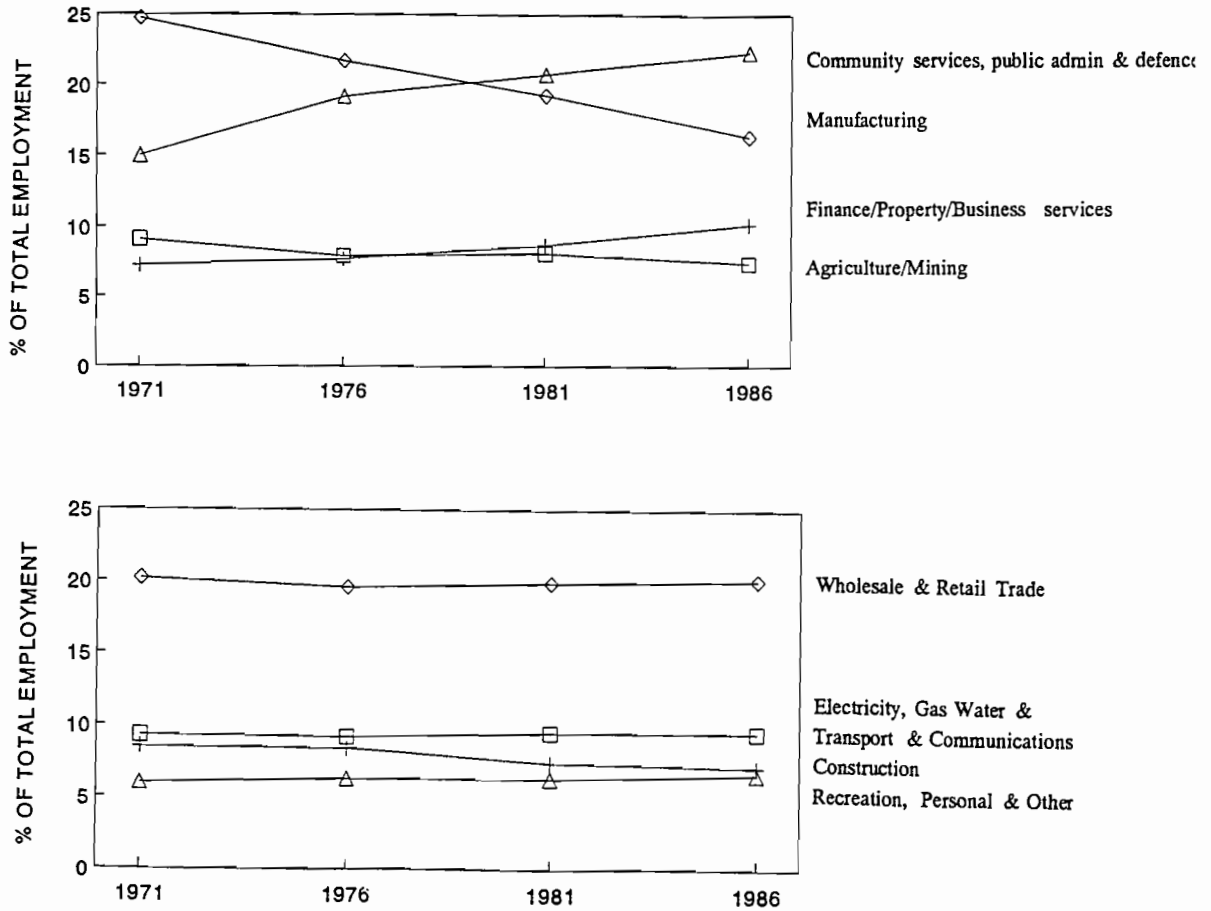
Table 18-1 shows that by 1986 there were, however, significant variations between the capital cities in the structure of employment by industry. Clearly, Sydney's employment structure was more dominated by the finance, business, and services sector (14.3 percent) and it was well behind Melbourne and Adelaide in concentration of employment in the manufacturing sector (16.7 percent). But across the capital cities, the dominance of growth in the financial and related services, in community services, and in wholesale and retail trade was such that by 1986 these three sectors employed 3.298 million out of a total labor force of 6.885 million, and 47.8 percent of total employment, whereas back in 1971 these sectors employed only 38.5 percent of the labor force.

SYDNEY EMERGES AS A 'WORLD CITY'

Sydney was to claim the main benefits of the gains that flowed from trends towards globalization—the structural shifts in the Australian economy, the floating of the Australian dollar in 1983, and the deregulation of financial markets from 1984.

Figure 18-2

Employment Structure, Australia, 1971-1986



Sources: ABS The labour force, Catalogue No. 6204.0, ABS, Canberra; ABS Labour statistics, Australia, 1985, Catalogue No. 6101.1, ABS.

* 1990 Figures estimates. They do not include agriculture. As a result, total employment is underestimated and percent of sectors are overestimated.

Table 18-1**Capital City Employment Distribution,
30 June 1986,
Percentage By Industrial Sector**

<u>Sector</u>	<u>Sydney</u>	<u>Melbourne</u>	<u>Brisbane</u>	<u>Adelaide</u>	<u>Perth</u>
Agriculture, fishing	0.8	0.8	0.9	1.1	1.7
Mining	0.4	0.2	0.7	0.6	1.4
Manufacturing	16.7	20.6	14.0	17.1	12.9
Electricity, gas, & water	1.9	1.6	1.5	1.6	1.7
Construction	6.1	6.0	7.7	6.4	7.3
Retail/Wholesale	19.6	19.3	23.1	20.3	20.8
Transport	6.1	5.1	6.4	4.4	5.3
Communication	2.3	2.2	2.8	2.0	2.0
Finance, business services	14.3	11.7	11.9	10.1	11.9
Public administration	5.5	5.4	7.4	5.2	5.0
Community services	16.4	17.3	19.6	21.5	19.6
Recreation, etc.	6.1	5.0	6.0	6.3	6.6

Source: ABS 1986 Census.

Sydney emerged as the undisputed leader among the major cities, while Melbourne has lost out to its northern rival. Brisbane and Perth have emerged as the new 'sun belt' growth metropolitan cities; while Adelaide languishes, having seen much of its industrial base decline.

The strengths and the pace of Sydney's economic restructuring are staggering in the Australian context. By 1988, New South Wales' economy as a State ranked 17th in the OECD and 26th in the world. Sydney had the most dynamic stock exchange, which ranked 9th in the world in terms of capitalization. It had the 8th largest foreign exchange market in the world measured on the basis of turnover. The Sydney Futures Exchange, which began operating in 1960, was the largest in Asia and the 8th largest in the world.

Sydney's status as a 'world city' comes largely through the rise of the financial sector and the change in Sydney's functional base. It has been able to establish quickly its pre-eminent position in the 'new' financial world as opposed to Melbourne, the home of the 'old' money, which has been the traditional base for the large family companies and mining companies that dominated the Australian economy from late last century through to the 1960s. The rise of Sydney has been due to its ability to absorb the new, its ingenuity, and the opportunities offered by the new system. Melbourne remained conservative and lost ground.

Sydney's Dominance Among Australia's Cities

As one would expect in a small and relatively insignificant economy and a highly urbanized nation like Australia, it is within the two largest cities, Sydney and Melbourne, where the bulk of urban-based activity is found. During the 1950s, the States of New South Wales and Victoria have taken much larger shares of activity than would have been expected relative to their shares of the population (O'Connor, 1990). These capital cities accounted for 70 percent of new office building, 75 percent of capital expenditure in finance and property, and 80 percent of new factory construction and capital investment. It is only in hotel building that the focus shifts elsewhere, dominated by Queensland, the nation's 'sun-belt' State, with the focus of international tourism on the Gold Coast and Cairns regions in particular.

The continued importance of Melbourne as a manufacturing center is due to the fact that during the 1980s about half of the expenditure on R&D in this sector was in activities located in Victoria, and about one-third in New South Wales. Melbourne and Sydney tend to dominate as the locations where overall R&D activities are located.

However, outside of manufacturing, Sydney emerged as the dominant city for investment and activity in the growth sectors of the economy. In industries such as the media, publishing, and advertising, the major concentration in employment, infrastructure, management, and organizational skills are in Sydney (O'Connor, 1991).

Among the international companies operating in the financial sector, 150 have their headquarters in Sydney, and of those 50 had branch offices in other Australian cities. Melbourne was the headquarters for only 43 international financial firms, and only 10 had branches in other parts of Australia (*Australian Business*, November 9, 1988).

Financial establishments in Sydney came from 29 countries. Some 48 firms from Japan, 29 from the USA, 14 from the United Kingdom, 10 from France, and 8 from Pacific Rim countries had more than one banking organization centered in Sydney. Only 14 nations had financial organization headquarters located in Melbourne, and only Japan and the USA were represented from the Pacific Rim. In Sydney the average employment in foreign banks was 82. This was less than the average employed of 120 in Melbourne, but only because one of the banks located in Melbourne had entered retail banking through purchase of an Australian building society. In commercial and merchant banking, Sydney outstripped Melbourne ten to four in commercial banking and eighty-one to six in merchant banking. The Reserve Bank has traditionally been headquartered in Sydney, as are the headquarters of two of the four major local banks.

Forty-five of the largest 100 Australian companies had their headquarters in Sydney in 1984, and this rose to 52 in 1986 and to 60 in 1989. Melbourne had 29 of the largest 100 in 1989, compared to 41 in 1984. The rest of the Australian cities had 12 of these headquarters between them in 1989 (*The Australian Financial Review*, February 16, 1990).

Jacques (1989) has shown how the concentration of the richest individuals and families in Australia is high, with 41 of the richest 50 being in Sydney or Melbourne; and 44 percent of those 50 came from Sydney. For the richest 300, 42 percent were from Sydney.

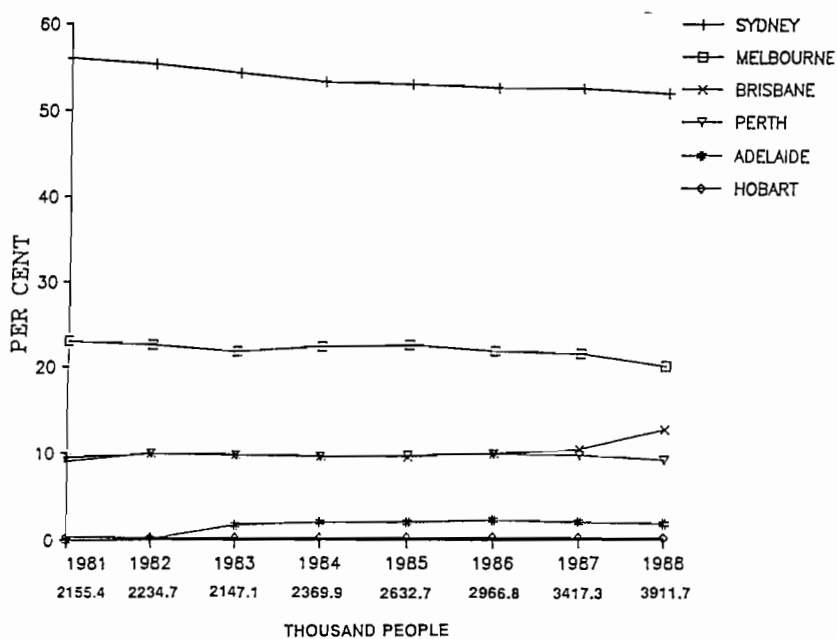
Gateway to Australia

Tourism is a sector of the economy that has grown strongly, and between 1983 and 1988 short-term visitor arrivals to Australia rose from 944,000 to 2.25 million. About \$A 20 million was committed to tourism infrastructure; tourism sustained 448,000 jobs, and generated about 5.6 percent of GDP. Over two-thirds of the tourists come from the Pacific Rim countries. Significantly, over 30 percent of the nation's five-star hotel accommodation is located in Sydney (Sandilands, 1990). Sydney was the major entry point, and, along with Queensland coastal resort areas, accounted for the majority of arrivals.

Figure 18-3 shows how dominant Sydney is as the international air gateway to Australia. However, the share of Sydney and Melbourne is slipping a little as the position of Brisbane and Cairns in Queensland improve their share of international air passenger inbound movement.

Figure 18-3

**Inbound International Air Passengers:
Capital City Shares 1981-1988**



Sources: Department of Aviation International Air Transport.
Australian International Airport Traffic and Movements.

Data: Inbound passengers for capital cities.

International Activity and Linkages

O'Connor (1991b) has stressed how "it is likely that a faster, more productive Australia will have stronger international links." Contacts with the rest of the world are channelled increasingly through a few ports and airports, and also through institutions and networks of people, who in turn are clustered in a few cities. The data in Table 18-2 show how a section of "international" activities in Australia are highly concentrated in Sydney, in particular, and to a lesser degree in Melbourne. Relative to its size, the Southeast Queensland region, including the cities of Brisbane and the Gold Coast, has a growing incidence of international activities, especially in the tourism-related activities. A recent study (Stimson, 1991) has outlined the potential of this 'sun-belt' metropolis region to develop its role in the Asia-Pacific region.

Sydney stands out as the international 'gateway' of the nation, as a "place where the majority of international contacts can be made" (O'Connor, 1991b: 5). If the Australian economy becomes more internationalized, Sydney could be expected to assume a stronger role as new organizations use it, at least as their initial base of operations. In addition, Australian firms dealing with international organizations will find that contact with Sydney plays an increasing part in their activity.

PROPERTY, URBAN DEVELOPMENT, AND THE ASIAN CONNECTION

The level of the structural shift in employment that occurred in the Australian economy since the 1970s is signified in Sydney, and to a lesser extent the other capital cities, by a shift of equal significance in new fixed capital investment to the finance, property, and business services sector. Investment in this sector totalled \$A 1.317 billion in 1982-83, while investment in manufacturing had skipped to \$A 1.153 billion. By 1984-85, investment in the financial, property, and services sector had reached \$A 1.490 billion, leading investment in manufacturing, which had declined to \$A 0.815 billion. This was a remarkable turnaround.

In the cities, and especially in Sydney, the result has been a series of property booms (and busts), a massive rebuilding and expansion of CBDs, and the growth of regional business centers.

Booms and Busts

Since the late 1960s, Australian property markets have gone through three peaks, the last culminating in late 1988 or early 1989 following a 'bull run' of four to five years. The slumps have been in 1974, 1982-83, and since early to mid-1989.

During the three best recent boom years, between 1986 and 1988, in Sydney the capital growth rate of commercial property averaged 23 percent per annum, and total return was more than 29 percent per annum. It was a time of "initial response to strong fundamental conditions followed by a state of euphoria as the fundamentals were swept away by unrealistic expectations" (Seek & Dickinson, 1990: 5).

Table 18-2

**International Activity in Australian Metropolitan Areas
Some Selected Measured**

City	Management Jobs (1)	Office Space (² 000m ²) (2)	Hotel Rooms (³ 000) (3)	Hotel Occu- pancy Rates (%) (3)	Head Offices (4)	Inter- national Acti- ties (5)	International Airport Traffic		Popula- tion 1986 (7)
							Inbound Aircraft Passenger Movements		
							1985	1985	
		(6)							
Sydney	182,471	2,650	14,871	73	50	205	1,395,454	10,093	3,364,858
Melbourne	148,977	1,200	8,815	64	36	156	594,984	55,738	52,832,893
Brisbane	49,115	1,030	6,155	57	4	66	251,372	2,190	1,149,401
Perth	46,686	790	6,160	56	2	79	256,350	1,477	994,472
Adelaide	43,371	460	3,932	69	7	67	55,353	443	977,721
Hobart	7,484		na	na	nil	19	7,911	97	175,082

Source: O'Connor, 1990b.

1. Group of occupations selected from Australian Standard Classification of Occupations, Census of Australia 1986.
2. Jones Lang Wootton (1987), *Property 1987*, pp. 11-21 for cumulative absorption in each market as per analysis.
3. Jones Lang Wootton (1987), *Property 1987*, p. 63.
4. Number of firms in top 100 companies in Australia (Edgington, 1983).
5. Entries in telephone book labelled 'International.'
6. Department of Aviation (1985), *International Air Transport*.

Figure 18-4 shows how New South Wales as a State dominated the Australian market for office construction during the 1980s, with its share rising to capture 40 percent during the decade. Figure 18-5 shows how the Sydney market clearly outstripped all other capital cities in prime office rents.

Sydney's CBD provides an interesting comparison with Tokyo, Melbourne, Kuala Lumpur, Singapore, Hong Kong, and Auckland. Sydney consistently has had the lowest vacancy rate. It has ranked third out of the eight cities in prime office investment yield, and third in terms of rental index increases. By 1990, Sydney CBD prime rents had reached \$A 800 per square meter.

The 1980s property boom was related to the general business cycle. For six years, from late 1983, the Australian economy had strong real growth in GDP, which averaged 4.25 percent per annum. This domestic growth, along with the global expansion of financial services and the deregulation of the banking sector, resulted in a major increase in user demand that could not be met by available stocks. In Sydney and Melbourne, vacancy rates were low at 1 to 2 percent. As the market emerged from the 1982-83 slump, developers began to respond to a perceived shortage of office space in anticipation of rising rents and capital values. The carry-over of projects from the post-1986 building boom will mean that building completions will continue at high levels until 1991-92, as the construction cycle lags two to three years behind user demand and investment cycles.

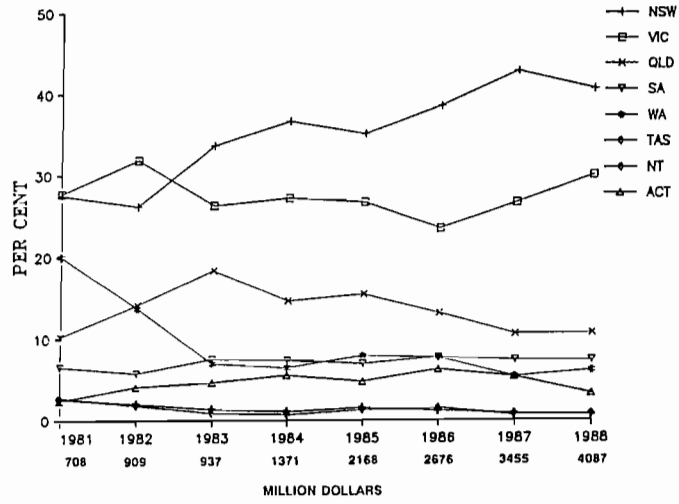
Figure 18-6 shows the pattern of office construction in Sydney for the period 1987 to 1990, and illustrates the lag effects following the 1974, 1982-83, and the post-1989 slump years.

The unprecedented boom in office construction from 1986 in major Australian cities was further fuelled by the post-October 1987 stock market crash, which gave developers and investors the market confidence to make bold decisions, as well as sustain strong user demand and an overheated national economy. Too much liquidity was chasing limited purchasing opportunities, and the result was a downward pressure on yields. Following the stock market crash, the diversion of funds to property from equities led to a situation in which rapidly increasing investment funds sought to outperform each other. At the same time, large amounts of foreign funds were being brought into the country by foreign interests to purchase property. The existence of negative gearing in the tax system also added to the set of factors that made investment in property attractive. "All these forces combined to drive up the market to an unsustainable height, which set the stage for the current property slump" (Seek & Dickinson, 1990: 4). Into the first quarter of 1990, Sydney's CBD office market turnover fell by 30 percent, and there have also occurred downturns in the retail and industrial markets. Vacancy rates have grown from merely 1.17 percent, in June 1989, to 4 percent, and some commentators are predicting this to blow out beyond. It has already passed this level for prime office rental property.

Investment in the Sydney CBD market had grown from \$A 1.3 billion in 1985, to \$A 6.3 billion in the financial year 1988-89. However, the aftermath of the 1987 stock market crash,

Figure 18-4

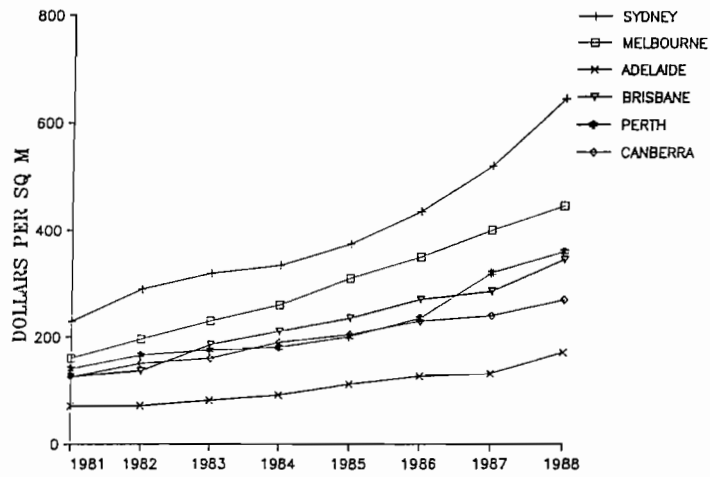
Office Construction in Australia: Share in Each State, 1981-1988



Source: ABS: Building Activity Survey. Table 2, 1-3-5. Catalogue No. 8752.0.

Figure 18-5

Prime Office Rents in Australia: Capital Cities, 1981-1988

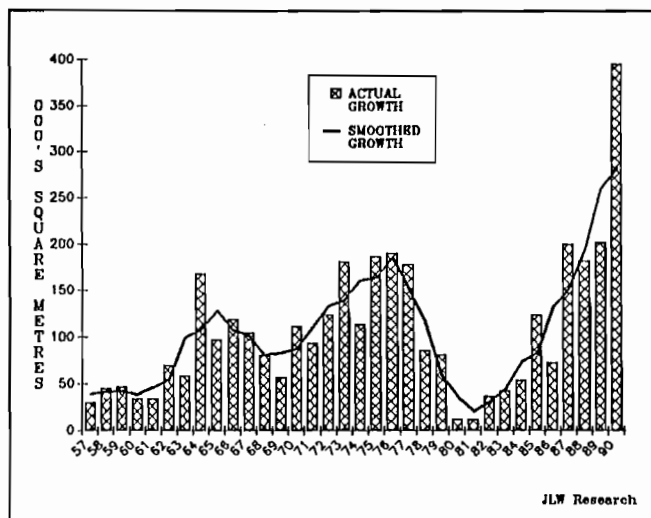


Source: Jones Lang Wootton Property Research Pty Limited, Grosvenor Place, 225 George St., Sydney 2000.

Data: Australian Prime CBD Average Office Rents.

Figure 18-6

Office Construction in Sydney's CBD, 1957-1990



Source: Jones Lang Wootton Property Research Pty. Ltd., Sydney.

continuing high interest rates, tighter monetary policies, and excessive corporate borrowings have combined to create a slump.

CBD property markets have always been subject to wild fluctuations, and the lumpiness with which huge new office towers (mega-projects) come on the market can exacerbate this volatility, as it did particularly in the early 1990s.

Foreign Investment and Property: A Catalyst for Change

An important occurrence in the last 15 to 20 years has been the development of national and international real estate markets in Australian cities. As Daly (1988: 156) has suggested, "in parallel with the growth of global manufacturing, trading and financial systems cities became more open, more competitive and more interlinked. So too did their property markets."

A feature of the 1980s property boom was the major role played by foreign investment. There was a surge in foreign investment in Australia, and this was characterized by a shift in orientation towards the real estate, tourism, and services sectors. There was also a shift in its source from USA and UK investors to Asian investors, and particularly to Japanese sources. With financial deregulation and the growth of mobile international funds, money flowed into and out of nations like Australia with ease and on an unprecedented scale.

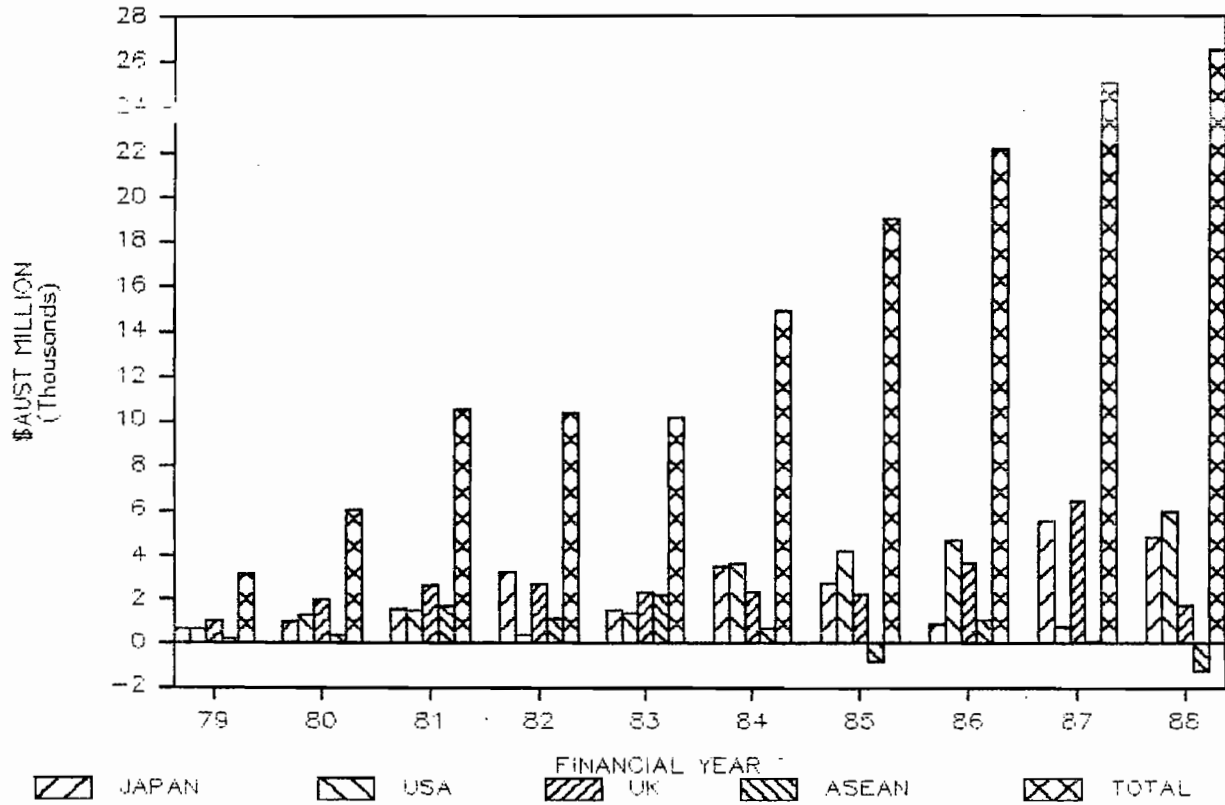
Foreign investment flows into Australia increased from \$A 14.8 billion, in 1984-85, to \$A 25.1 billion in 1988-89. Significantly, official foreign investment declined from 19.6 percent to 3.0 percent of the total over this period. Non-official direct foreign investment grew from 24.4 percent to 40.2 percent, and indirect (portfolio and other) foreign investment remained at about 55.5 percent to 56.7 percent. The actual levels of direct foreign investment were considerable, rising from \$A 5.1 billion in 1984-85, to \$A 10.5 billion in 1988-89.

Figure 18-7 shows how Japan has grown significantly as a source country for foreign investment, as has been the case for other Asian sources; the USA and UK, the traditional sources, have declined relatively while still remaining the dominant sources for overall levels of foreign investment.

During the 1980s, there was a big shift in the direction of expected foreign investment from the agricultural, mining, and manufacturing sectors to the real estate, tourism, services, financial, and insurance sectors. The number of proposals had sky-rocketed during this decade to reach to over 4,500 in 1988-89. By the latter part of the 1980s, Japan had become a major source of foreign investment in these sectors, while traditional sources of the UK and USA remained strong. After a spurt of activity in the early 1980s, other Asian sources, including ASEAN countries, dried up. Expected foreign investment from Japan increased its share as a country of source from 5 percent to 30 percent from 1984-85 to 1988-89. Japanese investment accounted for 39 percent of direct foreign investment in real estate in 1988-89, to about 54 percent investment in real estate and 39 percent of investment of tourism.

Figure 18-7

**Foreign Investment in Australia:
Capital Transactions by Source, Country, or Region,
1979-80/1988-89**



Source: A.B.S., Cat 5305.0.

Between 1984-85 and 1988-89, foreign capital accounted for 20 percent of the net flow of funds into property in Australia. Some of these trends are illustrated in Figure 18-8.

Changing the emphasis of foreign investment to property development has lifted the scale of commercial projects. Whereas in the early 1980s a \$A 50 million project might have been considered large, projects involving hundreds of millions of dollars became common, and by the late 1980s in Sydney there emerged the prospects of a billion-dollar building.

There has been considerable debate about the desirability of foreign investment in Australia. It has been suggested that foreign investors are prepared to pay high prices for property, and in particular for tourism facilities, because of their access to cheaper finance than is the case for Australian companies. According to Dwyer & Forsyth (1990), what seems to be the crucial issue is that foreign investors might perceive opportunities which domestic investors do not perceive and, if this is the case, then the investments would be lost without foreign investment. Adrian & Stimson (1987) have documented the fundamental differences between the attitudes of Asian foreign investors in Australian property markets and those of local institutional investors as an important factor explaining why during the 1980s so much Asian capital poured into the tourism sector in Australia. A recent survey by Booz Allen & Hamilton (*Australian Business*, October 18, 1989) showed how over half of 70 larger Australian firms believed their performance had to be measured over less than one year, and only 6 percent considered five years as appropriate, which contrasted markedly with a sample of Japanese companies where none looked at one year and only 25 percent among other Asian businessmen did so.

Australia is one of the few countries in the world that has all the necessary attributes to attract foreign investment in real estate. According to Seek & Dickinson (1990: 11) these include political stability, long-term underlying wealth, highly developed hard and soft infrastructure, well-defined legal and land title systems, a respect for property rights, and highly desirable environment and climatic conditions.

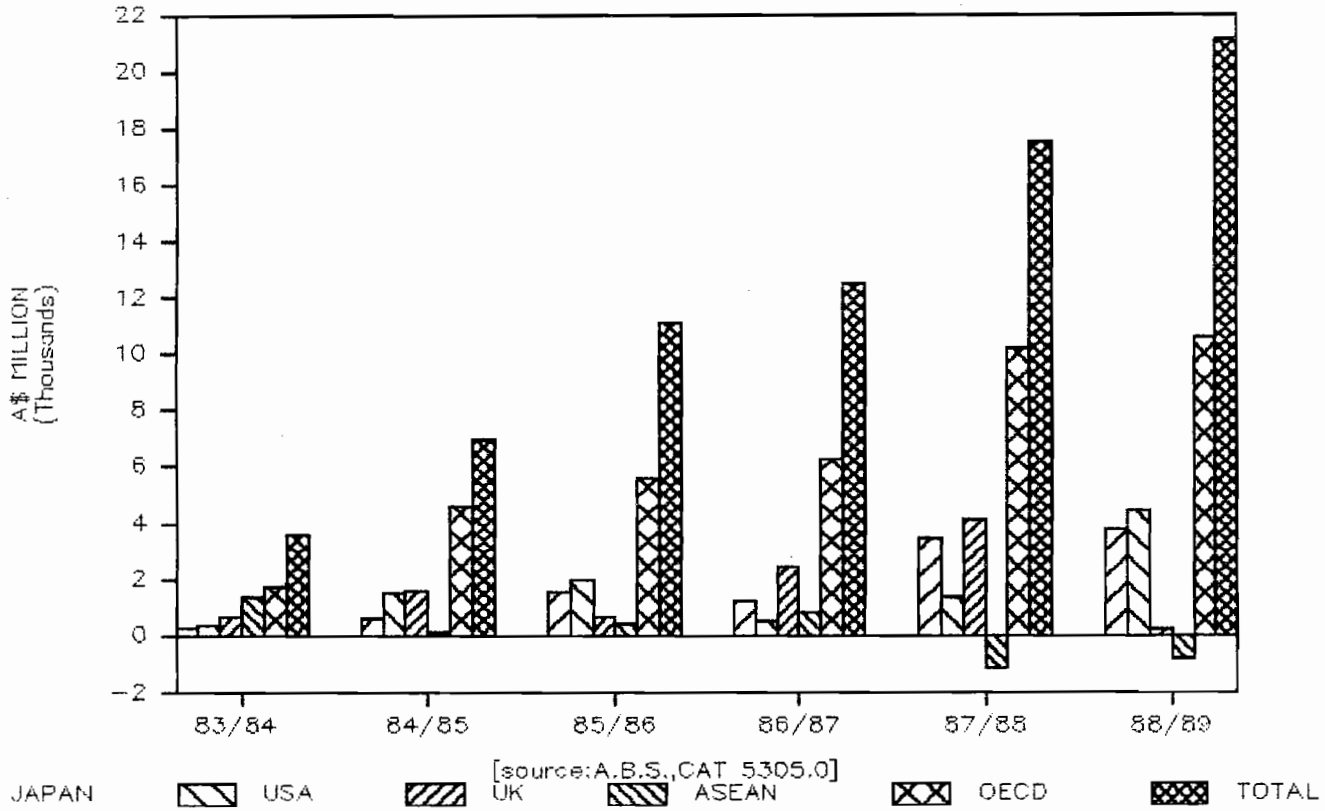
The performance of Australian prime property, and especially that in Sydney's CBD, at above 20 percent per annum over the last decade is another attraction. It has been among the best performing markets in the world, including New York, London, and Paris, where performances were between 13 and 17 percent per annum. Its attraction for foreign investors, therefore, is not surprising.

Foreign Interests in Sydney's CBD

The Sydney CBD was a significant target for the upsurge in foreign investment in the finance, property, and business services sectors that has occurred in the 1980s. However, within the 9.235 million square meters of floorspace in Sydney's CBD, foreign investors own only 7.5 percent. Japanese investment in particular has been concentrated in this sector and, in Sydney's CBD by

Figure 18-8

**Foreign Investment in Australia:
Finance, Property, and Business Services Sector
by Source, Country, or Region,
1983-84/1988-89**



Source: A.B.S., Cat 5305.0.

1990, a total of \$A 2.5 billion had been invested in 21 properties. Back in 1986, no CBD property transactions involved Japanese interests, but by 1987 29 percent did, and by 1989 18 percent of all property transactions involved Japanese funds. During the 1980s, investors from Singapore and Malaysia were also active. But by 1991, Japanese interests had surpassed the UK, Singapore, New Zealand, and the USA as foreign owners of CBD floorspace. There are some doubts about the maintenance of this high level of Japanese investment after 1991 (Daly & Stimson). An interesting phenomenon has been an increase in activity by Singapore investors, particularly in the non-prime office and hotel sectors in Sydney and other cities, such as Brisbane.

It is important to point out that Japanese and other Asian-source investors were active in the CBD property markets in other Australian capital cities throughout the 1980s. Most of the huge office projects were foreign-bankrolled. Foreign investment was also significant in the secondary office markets and some of the regional business centers. For example, a study of Jebb (1984), and subsequent periodic reports in the property pages of national newspapers, indicate that in the North Sydney office market probably about 30 percent of floorspace is foreign-owned; a similar proportion in Melbourne's St. Kilda Road/South Melbourne CBD fringe area is foreign-owned.

MEGA PROJECTS AND WATERFRONT REDEVELOPMENT

The 1980s saw the emergence of 'major projects' in Sydney, many of which have been oriented towards redevelopment of the urban waterfront, a trend that has become common in many Pacific Rim cities.

Two major projects were initiated in Sydney in the 1980s. The first was the redevelopment of Darling Harbor, an old rail, shipping, and industrial area to the west of the CBD from the 1900s, made redundant by metropolitan growth and changing transport technologies. The second was the City West Project, covering eventually the Pyrmont/Ultimo/White Bay/Glebe Island areas to the west of Darling Harbor, plus the Central/Eveleigh rail yards, which collectively formed an old industrial, transport, and 19th century housing region of the inner city. Most of the land was in public ownership, and the area had by the early 1970s experienced massive inner-city decline. It was evident that rejuvenation of the area required public-sector initiative, which the State government took in May 1984 when it announced the redevelopment of The Darling Harbor. This project was massive in scale and particularly costly — a 56-hectare site with a \$A3.3 billion budget, covering the equivalent of about one-third of the CBD. It incorporated significant and adverse public and private sector projects, as shown in Table 18-3.

In Australian urban redevelopment history there has never been a larger, more complex, or far reaching single project, either by the public or private sectors. The planning, construction, and administration of the scheme was of parallel scale and complexity and the politics were as contentious (Crawford, 1990b: 2).

Table 18-3

**Components of the Darling Harbor Project for the Redevelopment
of Part of Sydney's Inner-City Waterfront**

Public Sector Components

Exhibition Center (25,000m²) at \$126m
Convention Center (6,000 persons) at \$184m
Chinese Garden (1,000m²)
National Maritime Museum at \$70m
Foreshore Promenade at \$30m
Parks and Gardens at \$42m
Northern Car-park (1,800 spaces)
Historic Pyrmont Bridge restoration at \$22m

Private Sector Components

Harbourside Festival Marketplace at \$110m
Harbourlink Monorail at \$65m
Sydney Aquarium at \$30m
Southern Car-park at \$16m
Corn Exchange Hotel (700 rooms) at \$200m
Southern Hotel (500 rooms) at \$125m
Northern Hotel (500 rooms)
Darling Walk (Merlin Street) at \$140m
Pumphouse Tavern and Brewery at \$7m
Paddy's Market redevelopment at \$500m
Darling Park redevelopment at \$1,000m
Gardenside redevelopment at \$40m

Source: Crawford, 1990b.

Darling Harbor as an Australian bicentennial initiative with public facilities was to be substantially completed and opened by January 1988, and the balance by 1990. The Darling Harbor Authority was established as one of the most powerful agencies ever created in Australia, which included powers as a Constructing Authority under the Public Works Act. Crawford (1990b: 3-4) has summarized the implications of this approach and its outcomes as follows:

The Darling Harbor Authority . . . had . . . a unique planning and development approval system and the largest most complex construction management system yet seen in Sydney. The development program that followed also saw one of the most contentious individual development projects in recent history, an industrial relations nightmare and a constant public debate over the cost of the project. At its end it saw special Auditor-General investigations, Public Accounts Committee investigations, a series of huge law suits (continuing) and the mass resignation of the Board that had guided the project from its inception to public opening.

In the end it was also partly responsible for the electoral defeat of the then State Labor government. The extraordinary powers of the Authority, while enabling it to 'fast-track' the project, brought it into widespread conflict, including with the Sydney City Council (the nominal consent authority) and professional planning and design associations. There was widespread debate over the use of public funds for this type of project when they could have been spent on hospitals, schools, and other human services facilities, or transport systems. The major public component of the project, taken out in cost from an original estimate of \$A 200 million in 1984 dollars, increased to \$A 368 million in 1985 and \$A 654 million by 1989.

The Darling Harbor Project is not self-financing because of the inclusion of public infrastructure, including parks and gardens, foreshore works, and utilities. The private-sector components of the project have been the slowest to come on line, due in part to the 1989 property downtown and on-going legal challenges. Three mega four- and five-star hotels opened in 1991, adding about 1,400 rooms to a glutted market. Over \$A1.5 billion of private-sector projects have been delayed.

However, the project did result in the redevelopment of 56 hectares of CBD adjacent property in under four years. It has provided a wide range of public facilities that will add considerably to the image of Sydney as a national and international tourist destination, and its 'world city' standing.

The City West project, including 100 hectares of public land, is intended to cover 300 hectares, six times the size of Darling Harbor. Most of the sites are derelict industrial, port, and rail lands that have become redundant by the same forms of structural change that was the case with Darling Harbor. City West is largely harbor frontage and offers a massive opportunity to restructure and revitalize a major segment of the inner city. But the majority of the area is in private ownership, with a large land parcel owned by the Colonial Sugar Refinery Company. The project has a 30-year time horizon and will be largely private-sector-driven, although government involvement is also intended, to maximize returns and secure macro-economic benefits in

addition to achieving social and heritage goals. Infrastructure requirements are intended to be self-funded by the project. It is intended to include substantial residential components that could add up to 10,000 in population to the inner city.

HIGH-TECHNOLOGY ACTIVITIES

"High tech" has been promoted as one of the major growth sectors of Australian city property markets in recent years; however, there has been a deal of confusion as to what it means, what sector of the property market it comprises, and the characteristics of demand or the magnitude of the existing and proposed supply. The over-used term covers a broad range of properties, from industrial buildings with a high office component to pure office developments outside established office or retail centers. The "high-tech" sector is providing for new and evolving forms of accommodation, combining the quality of office space found previously only in CBD locations with a more attractive working environment and the ability to undertake a range of different activities in one location.

These new forms of business space do not constitute a uniform or separate sector of city property markets, and they represent a less discrete market sector than a series of new 'property packages' with a spectrum of accommodation available to both office and industrial occupiers. According to a Jones Lang Wootton report (1990), the range includes, from the CBD: suburban office centers, office parks, business parks, high-quality industrial estates, general industrial estates, and special industrial areas. There is an increasing blurring of the distinction between office and industrial activities, the premises needed to house them, and the agglomeration of activities previously undertaken from remote locations into one building. Many activities are becoming more 'footloose.' Some activities have become more environmentally acceptable; locational criteria, such as power and raw materials, are no longer important locationally; and just-in-time inventory systems have freed up the location and space requirements of many activities. Increasingly, there is the potential to combine industrial, commercial, retailing, recreation and leisure, and residential activities.

There has been a good deal of hype about 'high-tech' developments in Australian cities, and they accounted for only about 5 percent of all office and industrial property at the end of the 1980s. Sydney and Melbourne, between them, had 70 percent of all existing floorspace, and over 95 percent of that proposed. By far, the biggest concentrations of business space exist in Sydney's North Shore area, particularly in North Ryde, where about 3.8 million square meters of floorspace are likely to be built by the early 1990s, with smaller concentrations of about 400,000 square meters of floorspace in South Sydney and about 650,000 square meters of floorspace in the Western suburbs. These cover office parks, 'high-tech' industrial premises, and business parks (Jones Lang Wootton, 1990). The South Sydney area is well placed to expand its 'high-tech' activities and facilities because of its proximity to Sydney's airport.

But there are relatively few true business parks in Sydney. In 1990, only four were located on the North Shore, ranging from 37,000 to 1.881 million square meters at Baulkham Hills, Frenches Forest, North Sydney, and Terry Hills. There were three in South Sydney, ranging in size from 48,000 to 74,000 square meters, all at Botany adjacent to the airport; and there were only two in the Western suburbs, ranging from 56,600 to 240,000 square meters in size at Homebush Bay and North Strathfield.

URBAN SPILL-OVER EFFECTS, INTERNATIONALIZATION, AND THE PROPERTY BOOM

As has been typical in many of the major cities of the Pacific Rim discussed in this book, Sydney exhibits many of the 'spill-over' effects of the processes of internationalization, structural adjustment, and property booms that tend to give rise to a segregated and socio-economically differential urban structure and way of life.

Within Sydney, income differentials within the growth areas of the services sector have expressed themselves strongly in contrasting costs and quality of the housing stock, in the quality of social and economic facilities, and in the location of investment and construction activity.

Agglomeration in the CBD and Inadequate Suburban Infrastructure Investment

The rise of the financial sector and its associated activities in Australia had a profound effect on changing the form of Sydney in particular. Agglomeration economies reign supreme in this sector, and the CBD was transformed by the two remarkable phases of building booms in the early 1970s and the mid- to late 1980s. While the financial sector and its related activities had a stunning effect on the CBD, its impact was on a relatively small segment of Sydney as a metropolis. However, the secondary impacts were more profound and broader, with intense competition for prime CBD space resulting in escalated rents. Sydney surged well ahead of other capital cities in property values, rents, and building activity for most of the 1980s. Many activities were squeezed out to create waves of suburban office development. Yields from office property outweighed those of other property sectors and diverted investment and construction away from alternative investments.

The concentration of investment funds in the property sector led to a lack of development of infrastructure and facilities in the outer suburban growth area of metropolitan Sydney, resulting in increasing stress and strain on physical infrastructure, transportation systems, and human infrastructure facilities and services.

Social and Economic Differentiation

In simplistic terms, there is the urban core of high-status suburbs, including the Sydney Harbor and covering the North Shore and Eastern suburbs, that are linked to the CBD and its growth services sector of 'high-flying' activities associated with the international economy and knowledge-based activities. In contrast, there are the lower-status sprawling suburbs in the west, northwest, and southwest sectors of the metropolis, where the bulk of the population lives and where the painful processes of economic restructuring have impacted most severely, with attendant high levels of structural and youth unemployment.

The nature of socioeconomic differentiation and segregation has been analyzed in detail by Horvath (1989) in the Social Atlas of Sydney. Figures 18-9 and 18-10 clearly demonstrate the segregated distribution of living patterns of high-income-earning individuals and the unemployed in Sydney in the mid-1980s, patterns that display familiar spatial differentiation in major cities.

Deteriorating Housing Affordability

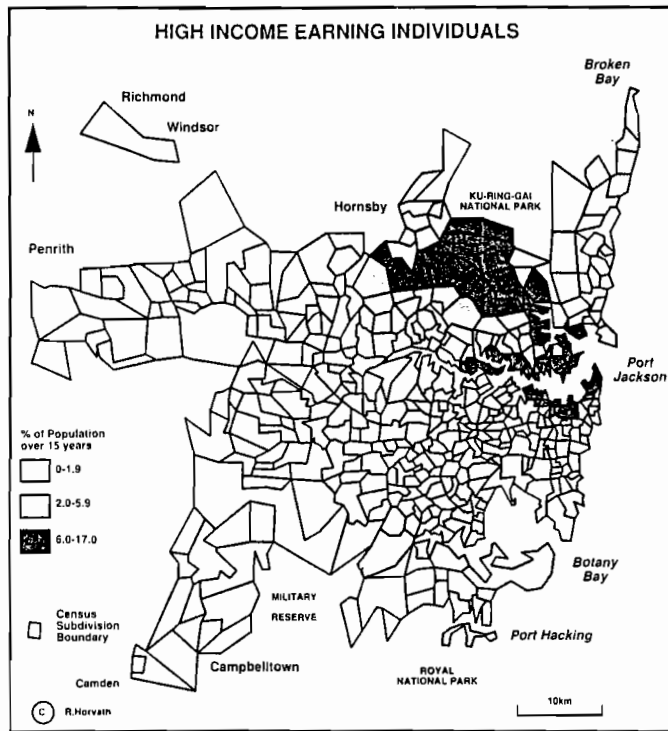
The 1980s saw a continuation, and indeed acceleration, of the gap between residential house prices in Sydney compared to the other capital cities, as Sydney's housing markets displayed the same trends evident in other Pacific Rim cities like Los Angeles, Vancouver and Tokyo.

Homes became less affordable, exacerbated by high interest rates and the property boom. Sydney became a city of declining home ownership, and growing homelessness. Figure 18-11 shows how, from 1985 to 1990, Sydney's median house prices increased from a little over \$A 90,000 to about \$A 180,000, having peaked at over \$A 220,000 in early 1989. A barometer of trends in home purchase accessibility in Australia is the ratio of the deposit gap to annual income (percent). In Sydney this increased from 141.2 percent in 1979 to 227.4 percent in 1990. Between 1982 and 1988, the proportion of income spent on housing increased from 16.9 percent to 19.5 percent for home purchases; however, in 1988 it was 31.8 percent for the 2nd lowest quintile income group households and 22.4 percent for the 4th (2nd highest) quintile income group households. For renters these figures were 37.6 percent and 20.4 percent respectively in 1988, while between 1982 and 1988 the proportion of income spent on housing for all renters in Sydney had increased from 20.5 percent to 23.6 percent.

The socioeconomic distinctions between areas of Sydney became sharper and more drastic in their consequences as a result of the escalation in the city's house prices. In the central city areas, housing prices escalated and higher-income white collar workers chose to locate close to the CBD, speeding the gentrification of the inner suburbs, and enhancing the displacement of low- and middle-income households to the outer suburbs. First-home purchasers were increasingly banished to the poorly serviced outer fringe suburbs, from which the commute to work was long, and where crime and delinquency was on the rise.

Figure 18-9

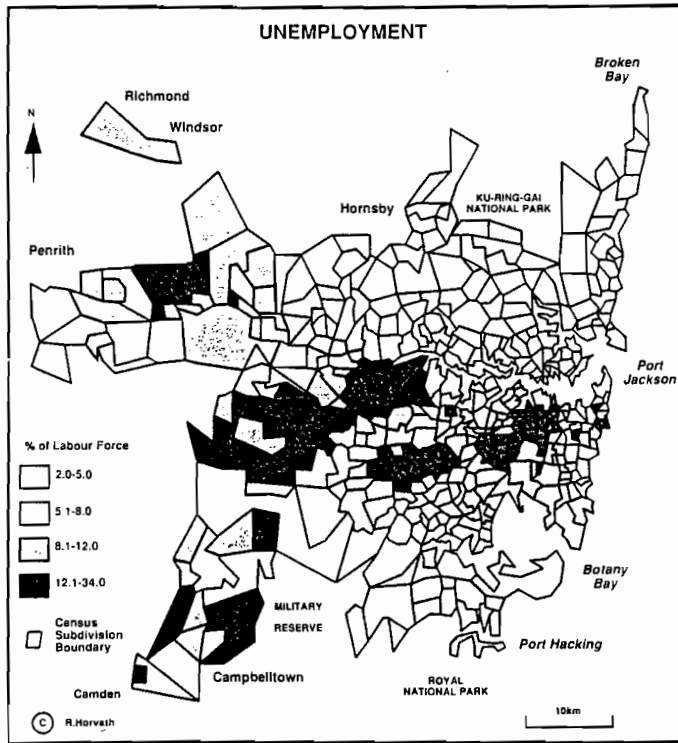
The Distribution of High-Income-Earning Individuals, Sydney, 1986



Reproduced with permission from Horvath, 1989.

Figure 18-10

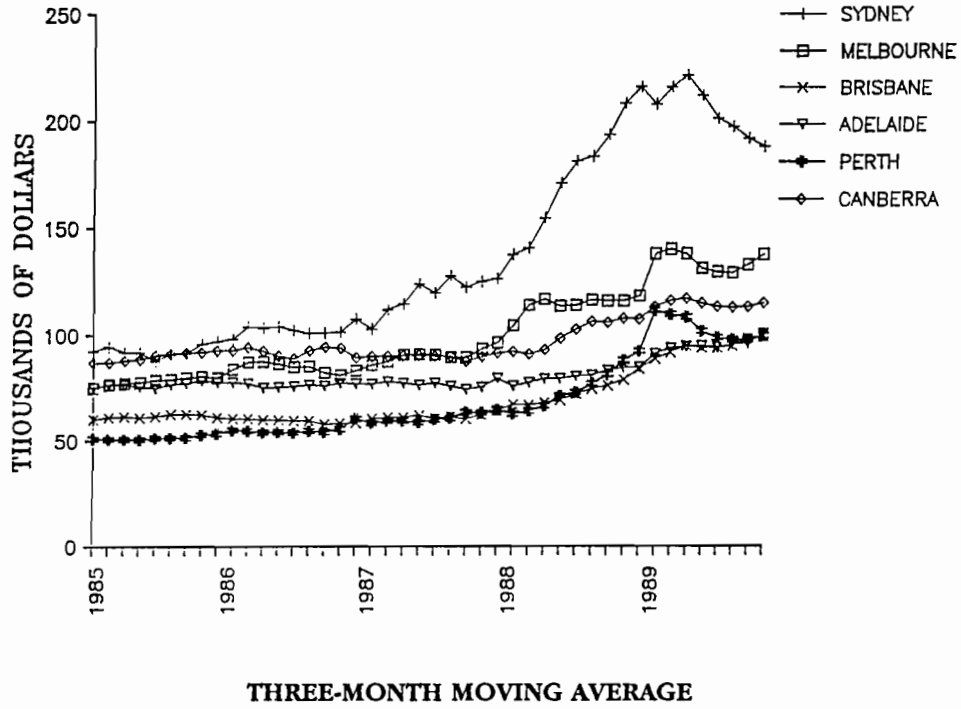
The Distribution of Unemployment, Sydney, 1986



Reproduced with permission from Horvath, 1989.

Figure 18-11

**Median House Prices in Australian Capital Cities,
1985-1990**



Source: The Real Estate Institute of Australia, Market Facts monthly survey.

Data: Monthly median price of established houses sold.

What has emerged in Sydney by the early 1990s is a metropolis where inequalities of income, access to urban services and facilities, and access to affordable housing have become greater than they have ever been in the history of the city, which is now well and truly socially and economically segregated.

PLANNING FOR THE METROPOLIS

Clearly, Sydney has in one sense been the great success story among Australia's cities in the 1980s, with its emergence as the nation's international gateway and as a 'world city'; however, it is also exhibiting many of the problems that face major cities in terms of socioeconomic differentiation, social justice, the provision of infrastructure, and environmental quality.

Wilmoth (1987: 158) pointed to the "widespread concern among developers and local governments about the past neglect of metropolitan planning and the absence of a public strategy. But in the broader community such a need is by no means self evident."

Past Approaches

The issue of regional planning for metropolitan Sydney is not a new one. There have been periodic attempts to formulate a long-term development plan for the metropolis and its expansion in the past, but they have resulted in, at best, fragmented implementation.

The 1948 County of Cumberland Planning Scheme was the first such attempt at regional planning. It laid down a region-wide zoning scheme guided by a number of planning objectives, including the development of suburban centers in strategic locations, the location of medium-density housing in areas with good amenity and environment, and a greenbelt to contain urban sprawl. The plan severely underestimated the size of post-World War II population growth, and development processes led to the abandonment of the greenbelt.

The 1968 Sydney Regional Outline Plan provided an approach to managing metropolitan expansion by identifying specific greenfield areas for urban release, and by setting down the order of their release. A program for coordinated infrastructure and servicing requirements for release of new urban land was developed, to give it to housing and servicing demand as a rolling five-year Urban Development Program linked to area-based capital budgets for urban expansion. A 1980 review of the Sydney Regional Outline Plan led to an adjustment to focus on changing economic and demographic circumstances, as some aspects of growth had been overestimated, while others had been very much underestimated.

In 1979, the Environmental Planning and Assessment Act of the State government enabled a number of planning policies with region-wide significance to be implemented, increasing the range of housing choice in existing urban areas, and the development of a series of Regional Environ-

mental Plans for parts of Sydney. But the result was an aggregate picture that was highly irrational for overall patterns and processes of metropolitan development (Wilmoth, 1987: 160).

Economic and Employment Issues

During the 1980s, it became clear that metropolitan regional planning in Sydney needed to focus on the development of a metropolitan strategy based on an analysis of the key issues concerning the regional economy. The economic role of the Sydney/Newcastle (to the north)/Wollongong (to the south) concentration as an integrated region, the role of Sydney as the State capital city and as the nation's gateway, needed to be the basis for a strategy as well. According to Wilmoth (1987: 160-1):

in any metropolitan strategy it is important to enhance this national and international role, given the international economic restructuring and strong competition from other metropolitan areas for larger shares of industry, financial activity and tourism in particular. Sydney's development is also a national issue: an efficient urban region will contribute to national efficiency.

For a metropolitan strategy for Sydney's development, the crucial economic variable is employment—the size of the labor force, the extent of employment, and the need to plan for a range of possibilities, due to the uncertainty of the long-term outlook for the national economy. No longer can economics be left as exogenous factors. Alternative economic prospects need to be integral parts of a metropolitan development strategy for Sydney.

Technological change would also radically affect all industry sectors, and influence trends towards both dispersal and agglomeration of some activities.

A crucial issue has become "ensuring that enough jobs of the right kind are available in the right places" (Wilmoth, 1987: 164). Should Sydney adopt a passive response to meeting employment needs? The city could provide industrial and commercial land and services to meet demand as it arises, resulting in more jobs that are reliant on private transport with increased air pollution, energy use, the need for road investment, and a continuing concentration of free-standing offices and advanced technology facilities in the middle suburbs, especially on the north shore near to where the executive and professional people live. Or, should the city concentrate planning in the outer suburbs where the population is growing fastest? Alternatively, should jobs be more concentrated to make use of the existing public transport infrastructure, through adopting policies promoting a limited number of larger centers as concentrations of employment, while also encouraging job provision in the outer suburban areas?

The New South Wales Department of Planning (1988) proposed that Sydney basically faced the choice between two employment scenarios—dispersed or laissez-faire, and concentrated or planned. But even in the latter, market forces were seen as dominating employment distribution. Wilmoth

(1987) proposed thinking of location and employment in three ways: jobs near the labor force; jobs in major industrial and special use areas; and jobs in major commercial centers.

At the beginning of the 1980s, in Sydney, about 54 percent of jobs were located near the labor force in local shopping centers, service establishments, light industry, schools, and other activities mixed through residential areas. And it is not likely there will be a radical change in the nature of these relationships over the longer term. They might rise to 60 percent under the dispersed scenario, or drop to 50 percent under the concentrated scenario.

The proportion of jobs in major industrial and special use areas was 21 percent in 1981, and there is a decline expected to continue long-term to about 20 percent under the concentrated option or to 17 percent under the dispersed option. This reflects the relative decline in the manufacturing labor force associated with economic restructuring.

The proportion of jobs in major commercial centers was 25 percent in Sydney in 1981, and this figure is likely to grow or decline long-term, according to the actions of governments to implement a centers policy or to retract from it. There are a number of sub-regional centers in Sydney dispersed throughout the metropolis, but in 1981 only three (St. Leonards, Liverpool, and Blacktown) had over 10,000 employment. Eight others (Bankstown, Bondi Junction, Burwood, Chatswood, Gosford, Hornsby, Hurstville, and Sutherland) had over 5,000 employment. The three regional centers—Sydney CBD with 190,000, North Sydney with 29,000, and Parramatta with 20,000—remained the dominant commercial centers. But, as shown in Table 18-4, this could change significantly by 2011 under the concentrated and dispersed options, where the proportion of jobs could be 30 percent or 21 percent respectively. Wilmoth (1987: 167) suggested that the dispersed option could come about by design or neglect as market forces in the 1980s were leading in that direction, and that dispersal is a logical outcome of market and technological trends. It would result in the proliferation of freestanding offices, office parks, and retail developments; and employees would be more and more reliant on public transport for the journey to work. In contrast, the concentrated option could add significantly to employment in the CBD (220,000); North Sydney (40,000)/St. Leonards (20,000)/Chatswood (20,000) north shore strip along the rail line; Parramatta (60,000)/Campbelltown (30,000)/Blacktown (18,000)/Liverpool (2,000)/Penrith (20,000) in the western and southwestern sectors and on rail lines. The concentrated option would enhance public transport commuting and environmental quality, and potentially achieve the economic advantages of agglomeration economics.

Population Growth

Population trends are obviously an important issue for the development of metropolitan strategy. Since about 1970, Sydney's population as a proportion of the state's and the nation's population has been declining, and there is a net out-migration from the region. But Sydney still

Table 18-4

**Alternative Employment Distribution in Major Centers, Sydney,
1981 to 2011**

<u>Center</u>	Employment at 3.25 million (1981) ¹	Employment at 4.5 million (2011) ²	
		<u>concentrated option</u>	<u>dispersed option</u>
<i>Regional Centers</i>			
Sydney CBD	188,919	220,000	150,000
North Sydney	28,750	40,000	40,000
Parramatta	20,360	60,000	35,000
<i>Sub-Regional Centers</i>			
Bankstown	9,727	15,000	10,000
Blacktown	10,592	18,000	13,000
Bondi Junction	6,095	10,000	7,500
Burwood	7,355	10,000	7,500
Chatswood	9,363	20,000	20,000
Campbelltown	4,729	30,000	11,000
Gosford	5,233	10,000	6,500
Hornsby	9,637	15,000	10,000
Hurstville	6,978	10,000	7,000
Liverpool	10,904	20,000	12,000
Mt. Druitt	1,746	5,000	3,000
Penrith	3,703	20,000	11,000
St. Leonards ³	22,983	20,000	20,000
Sutherland ³	5,524	10,000	8,000
Wyong-Tuggerah	-	5,000	3,000
Bringelly Sector Center	-	12,000	7,000
NW Sector Center	-	8,000	5,000
TOTAL MAJOR CENTERS	352,598	558,000	386,500
Share of Total Employment	23%	30%	21%

Source: Wilmoth 1987

attracts overseas migrants, and the metropolitan population is expected to reach between 4.5 and 5 million between 2007 and 2017, depending largely on the level of immigration to Australia. Central to policy for metropolitan strategy is the question should Sydney's growth be encouraged, discouraged, or left alone?

Some commentators claim that Sydney is already too big, that its environment will deteriorate, and that the social impact of growth will result in increasing inequities in the city. But discouraging and restricting growth would push up housing prices even faster, and it could result in losing the advantages of a skilled and diversified labor supply and ethnic diversity.

Alternatively, Sydney's growth could be encouraged so that the region can capitalize on its competitive advantages, enjoy the economics of scale and of agglomeration as the city's national and international influence and importance increases, and continue its ethnic, cultural, and social diversity.

Certainly, the higher the rates of population growth, the more will be the burden on local and state governments and service authorities, particularly at times of fiscal stringency for public financing of infrastructure and services. A crucial component of managing metropolitan growth and development will be the timely provision of urban services and the release of land. It is estimated that over the 20 years from 1981, at least 654,000 dwellings will be added to metropolitan Sydney.

New Land Release and Urban Consolidation

An increasingly controversial issue in Sydney in the 1980s was the degree to which current planning policies and zoning practices of the large number of small local governments that make up the metropolis are exacerbating the problems of ever-increasing urban sprawl. Populations were declining in many of the inner- and middle-city municipalities, and their reluctance to rezone land to higher levels of residential development is effectively blocking the intents of successive state governments to achieve better use of existing urban space through urban consolidation.

There are potentially significant opportunities for urban consolidation in Sydney through redevelopment, infill, building conversion, and the retention and renovation of the housing stock. During the first half of the 1980s, private-sector initiatives with urban consolidation had averaged about 6,000 new dwellings per year, and Wilmoth (1987: 179) has estimated that an active program could pursue targets of over 12,000 multi-unit dwellings commencements annually, if land limitations through restrictive zoning could be overcome. Possibly 9,000 dwelling units per year is a more feasible target.

The reality is that most (up to 20 percent) of the new dwelling stock to accommodate population growth in Sydney is likely to be in greenfields sites, where there are also opportunities to achieve improved density performance. This will be important because of the strong physical, environmental, and financial limits to Sydney's expansion. Agricultural lands, flood plains, water

catchments, wetlands, public open space, national parks, state forests, special corridors, and waste disposal sites all pose restrictions for development and expansion of the metropolis.

Land suitable for new urban development, given all the likely constraints, in the Sydney region was estimated in the mid-1980s to be about 52,300 hectares, distributed as follows: 23,200 hectares in the northwest sector; 16,500 hectares in the McArthur sector; 5,900 hectares in the Bringelly sector; 2,000 hectares in the Warringah sector; 4,000 hectares in the Central Coast sector; and 760 hectares in the southern and Illawarra sector.

This is not a lot of land, particularly when it is recalled that the reasons for the substantial underestimation of dwelling accommodation in the 1968 Sydney Region Outline Plan had been due to the low achievement of gross residential dwelling densities of eight lots per hectare. High densities of ten or more lots per hectare would be desirable, but they are rarely attained in developments. The implications are that all the 52,360 identified by the state government Department of Planning as suitable for new urban development would be taken up by the time Sydney's population reached 4.5 million. There were about 667,000 potential new residential lots available in the region, of which about 500,000 were uncommitted at ten dwellings per hectare, but only 400,000 at eight dwellings per hectare.

Environmental Issues

Environmental issues received increasing attention during the 1980s. While significant advances were made in improving Sydney's air and water quality, it is still feared that without special effort the Sydney region could suffer from air, water, and noise protection problems as the metropolis grows. Technological improvements and finances to accelerate and maintain the rate of improvements that have been achieved will in themselves be required. In addition, there is the need to consider the location and timing of urban development and environmental planning at early stages in making decisions on the growth patterns for the metropolis.

Because of its natural configuration as a basin, surrounded by steep terrain and dissected by rivers and harbors, with its climate and prevailing air flows, Sydney is vulnerable to photo-chemical smog episodes in summer, brown haze in winter, and carbon monoxide levels on congested streets unless strong pollution control programs are implemented.

Even with new regulations and new technology, further urban growth could make air pollution events more frequent and more widespread across the region. Prospects for maintaining air quality levels depend on further policies for the location and timing of urban development, slower growth or private vehicle use (perhaps through better public transport, a decline in manufacturing or further prohibition on air polluting industry within the basin. Some of these options are easy (Wilmoth, 1987: 173).

While there have been significant improvements in water quality, there is also the risk of longer-term deterioration. There will be a need for tighter controls over sewerage discharge

along the region's two major rivers. Treatment works, diversions, and augmentation of existing works and submarine outfalls are needed. Wet-weather water quality, in particular, will likely deteriorate without stringent run-off and erosion control programs, and a more compact form of urban growth would avoid risk.

Noise problems relate mainly to urban road traffic. However, aircraft noise from the conveniently located Sydney International and Domestic Airport (Kingsford Smith), only about 12km from the CBD, is a considerable community issue, particularly with the controversy that has been raging for a decade over proposals to develop a third runway (which would be a second parallel north-south runway).

While it can be expected that technological controls will have beneficial outcomes for road, rail, industrial, and aircraft noise, and for air and water pollution, they are not likely to keep pace with urban growth. They will require substantially increased expenditure on infrastructure programs and are likely to include increased user charges. Solutions are also likely to involve restrictions on the activities of people and firms. They will also require increased land use planning and controls.

The 1988 Metropolitan Strategy for Sydney

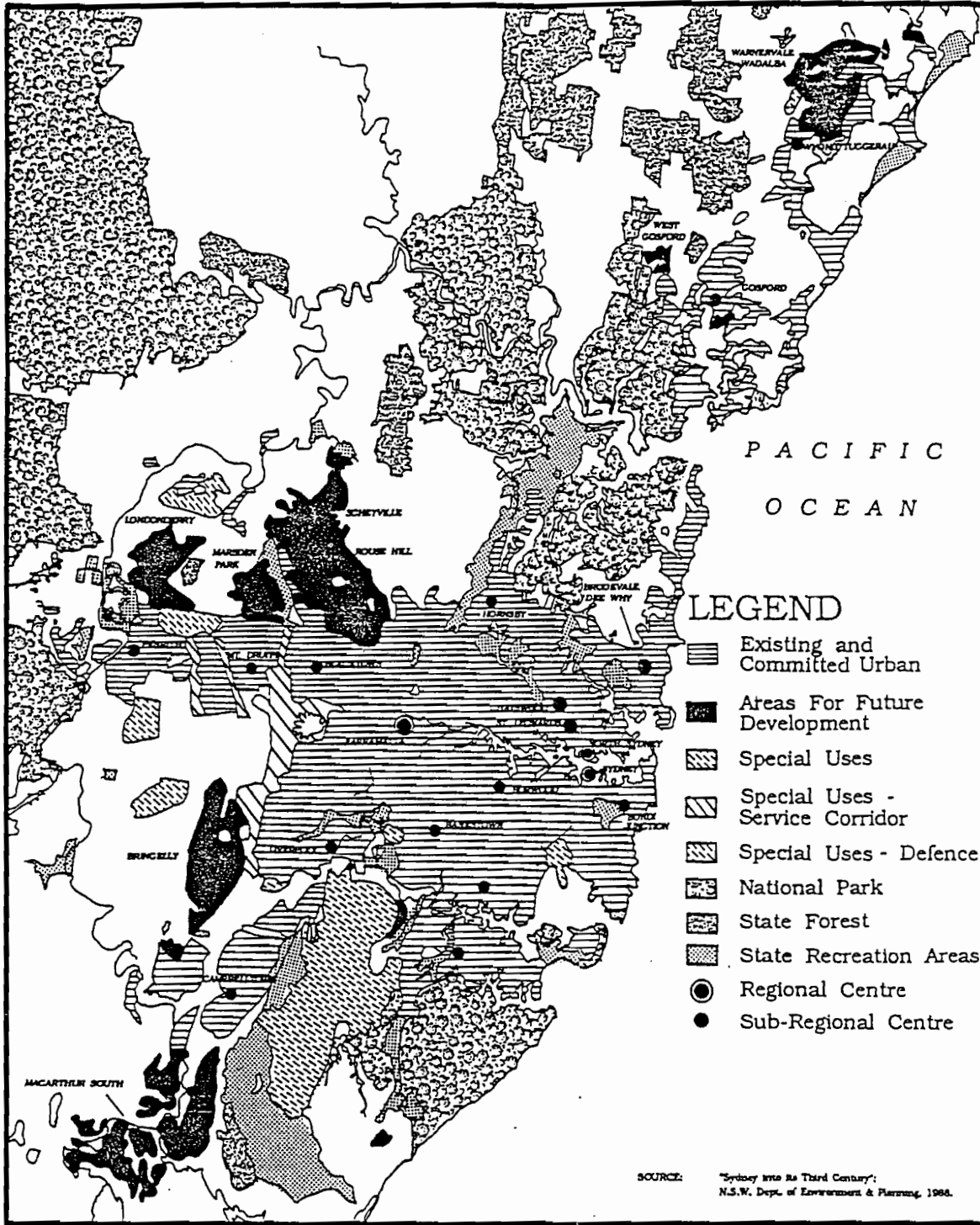
The New South Wales Government Department of Planning published in 1988 its Metropolitan Strategy for Sydney into its third century. The strategy set out to guide the development of the Sydney Region and proposed a land use plan. It set broad policies to shape and direct the overall development of Sydney up to 2011, by which time the city could expect to have a population of about 4.5 million. It proposed a preferred concentrated alternative as being most cost-effective for the government and the community, in order to best decrease potential air and water pollution, and to conserve land for future urban, agricultural, and recreational purposes. It proposed policies to ensure that land supply would keep pace with demand and that land values do not rise more than might normally occur. The concentrated option was shown to increase accessibility to employment for those using both public and private transport. It will require significant new expenditure on all transport facilities, since it will depend heavily on the public transport system.

The Strategy Plan proposed a detailed set of objectives and policies and general preferred locational outcomes, including new areas to be developed, major special use areas, major transport corridors, and the location of regional and sub-regional centers for Sydney. It sought to "provide the overall framework for detailed regional and local environmental plans" (NSW Department of Planning, 1988: 45).

The possible future urban structure of Sydney under the intents of the 1988 plan are shown in Figure 18-12.

Figure 18-12

Proposed Metropolitan Strategy for the Sydney Region, 1988



Source: "Sydney into its Third Century": N.S.W. Department of Environment and Planning 1968.

THE STATE GOVERNMENT'S STRATEGY TO INTERNATIONALIZE THE NEW SOUTH WALES ECONOMY

As Australia moves into the last decade of the 20th century, it is significant that the state of New South Wales, under the Griener Liberal-National Government, has recognized that the state and its capital city, Sydney, have an imperative, as important regions within the national economy, to address the accelerating global and economic integration focus of the type discussed earlier in this chapter. A Report of the Premiers' Council (1988) noted that

economic integration, global economies of scale in production, research and development, sales, marketing and distribution in virtually all the key manufacturing growth sectors, together with commodities and many services, place smaller economies at a competitive disadvantage unless they can secure niches and global market shares in particular sectors and then focus their resources on maintaining their position.

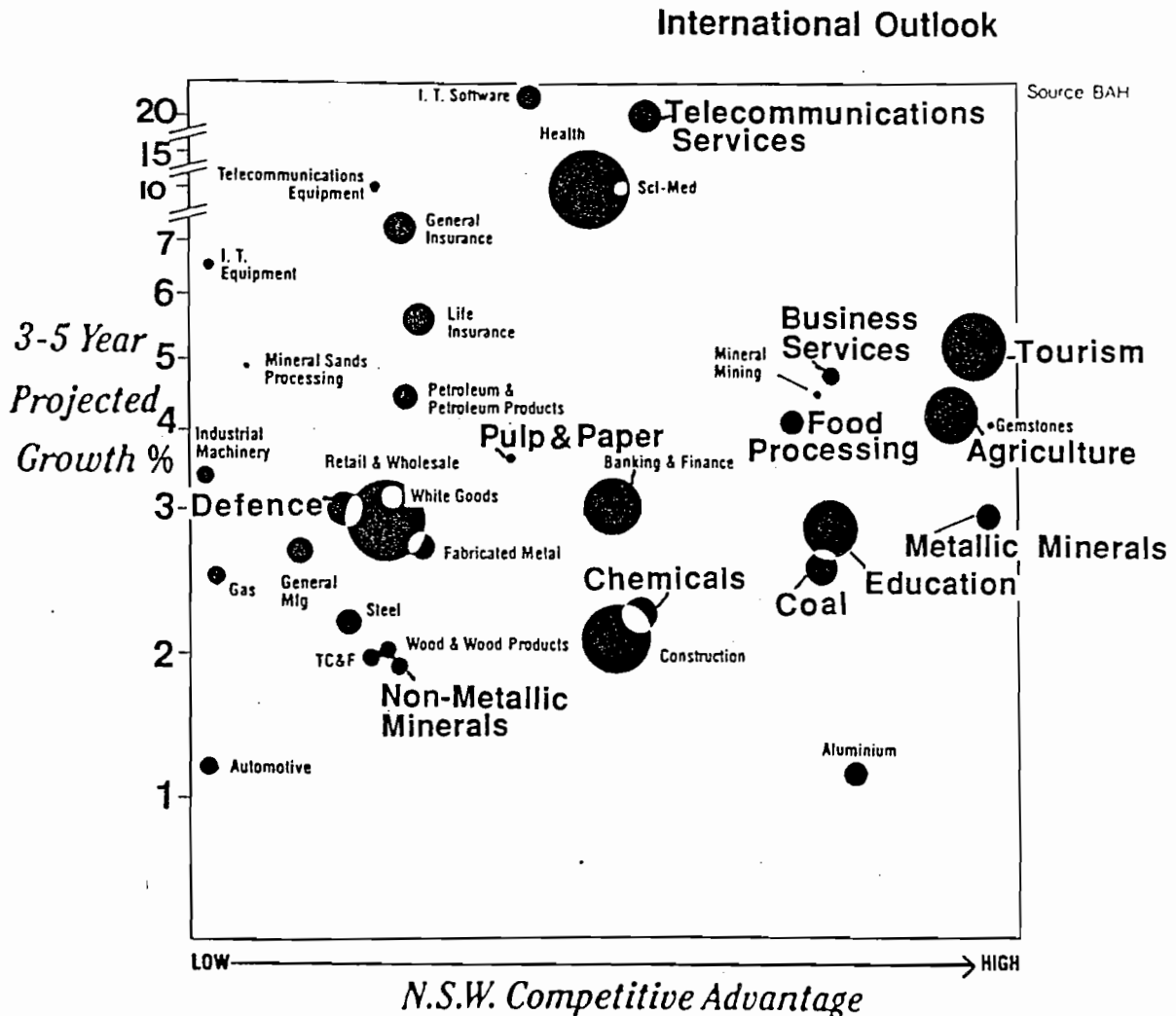
In strategic terms, the New South Wales government has seen internationalization as meaning that the state, its regions, and in particular Sydney have to become competitive and productive at a global level (Crawford, 1990a). This means focusing on high-value-added areas requiring high productivity where there can be a competitive advantage. The strategy being developed by the state government is market-driven and facilitatory, rather than interventionist; it seeks to create a supportive business environment and to provide infrastructure provision; it supports advocacy, promotion, and marketing; and it even extends to being a 'provocateur' for change and competition, deregulation, monitoring, strategic planning, and securing the competitive provision of public goods and services.

This is in contrast to approaches followed by the governments of some other states, notably Victoria and Western Australia, where massive financial losses (of \$A2.7 billion and \$A300 million respectively) have resulted due to direct market intervention through equity participation and speculative financing.

The strategy developed in New South Wales has been for government to be a facilitator and a catalyst to structural adjustment — to create a conducive climate for investment and profitability for business-driven ventures. A state economic strategy has been developed to facilitate the internationalization of the state economy and its regions. The strategy involved the identification of industry sectors of competitive advantage with good prospects for global growth (Booz, Allen & Hamilton, 1988). These are illustrated in Figure 18-13. In addition, public-sector impediments to business development are being targeted, including excessive regulation, infrastructure deficiencies, and excessive costs and charges for public utilities and services. The three broad industry groups identified were: resource-based, where opportunities exist for increased downstream processing; knowledge-based, capitalizing upon the State's skilled labor-force base and its capacity for R&D; and tourism.

Figure 18-13

Competitive Advantage of NSW Industry Sectors



Legend
 Circle Area is Proportional
 To Contribution To GDP
 ● 2-3%

Industry sectors identified for strategic positioning include information technology; finance and business services; scientific, medical, and environmental instruments; aerospace and defense; education; telecommunications; coal; pulp and paper; minerals processing; industrial minerals; chemicals; metallic minerals and non-metallic minerals; agriculture and food processing; and tourism.

Major international opportunities have been identified in paper pulp production and high-value-added paper products; steaming coal exports; increased downstream minerals processing and/or smelting; specialized software development (i.e., export systems); regional financing, insurance, and business support services based in Sydney; and coastal resort developments.

Sydney has world class health and education expertise and facilities, and major business opportunities exist in distance education and health service to Asia-Pacific markets. This complements its telecommunications/information technology base as the home of Overseas Telecommunications Commission (now to merge with Telecom) and AUSAT (satellite communications), as well as the majority of the national computer industry. It creates the potential for Sydney to develop into a 'fourth node' in global telecommunications. Parallel opportunities exist in tourism and regional media and entertainment services (Crawford, 1990a: 12-13).

In particular, Sydney, having emerged as the national finance and business capital, is specifically targeting the Asia-Pacific regional market to become the major regional player after Tokyo. This focus stems from: the scale of its existing business base with two-thirds of the corporate headquarters of Australia's top 100 companies; its existing tertiary education capacity with five universities and 20,000-plus graduates annually; and its stable and supportive political and business culture. With about 3.8 million people, its dominant role in the state economy, and its increasingly important role in the national economy, with a 'Gross Metro Product' of about \$A80 billion, Sydney is a formidable megalopolitan region, especially when linked with the resource and industry regions of Newcastle and the Hunter Valley to the north and Wollongong and the Illawarra to the south. In this context, Sydney and its region are somewhat like the system of cities that has emerged in some other Pacific Rim 'megacities,' such as Los Angeles.

PROSPECTS AND PROBLEMS

The current prospects and problems facing Australian cities reflect the changing status of the nation in the world during the 1970s and 1980s, when the world economy became more open and as each of the major western nations has become more integrated into the world system. Australian cities have been undergoing significant changes in response to structural changes taking place in the Australian economy and the internationalization of many key sectors of activity.

The process has challenged many of the assumptions held about the form and functioning of those cities. In the 1950s and 1960s Australians took it for granted that most of the population would have guaranteed high paid employment and would own their own homes. Cities reflected these supposed sureties. In the 1970s, and in particular in the

1980s, these assumptions have proved to be hollow hopes for an increasing number of people. Job security and high wages have been challenged and fewer people can own their own homes. Contrasts between different areas of the cities have become starker and cities more actively compete with each other for a limited stock of investment funds. Governments have long played a major role in providing basic infrastructure of the cities and in organizing urban planning and environmental safeguards. Government debt and the imperatives of inter-city rivalry for limited funds have produced more permissive attitudes on behalf of governments. Increasingly, they have turned from being arbiters in the urban scene to become entrepreneurs (Daly, 1988: 160).

As a result, Australian cities, as exemplified by Sydney, have begun the stark reality of economic change that has transformed the world.

Entering the 1990s in Uncertainty

The financial sector, which has so powerfully dominated the Australian economy in the 1980s, and which had been the force driving the growth of Sydney and inducing its property boom, entered the 1990s in a rather precarious state. The post-deregulation, freewheeling financial world of the 1980s had produced, for Australia, one of the world's largest national debts, enormous corporate debt, and the down-grading of the nation's (with some of the states) credit rating and that of its largest banks. Historically high sustained interest rates have both accelerated corporate collapses and stood in the way of new production investments. A chronic balance-of-payments problem was caused by too-heavy reliance on a limited range of commodity exports, and the impact of invisibles in the current account, largely linked to financial relationships.

Sydney, the nation's financial capital and the link to the world's financial centers, especially the economies of the Pacific Rim, stood at the center of the system of the 1980s. Its future prospects are largely dependent on how the global financial system of the 1990s evolves, and how Sydney can adapt to the change.

The New South Wales state government has evolved a policy of promoting Sydney as a world financial center, as evidenced by the Premier leading a high-level business delegation to London in June 1990. Ironically, at the same time, the Premier had to make a hurried swing through Switzerland, Germany, and Holland to meet bankers; because of the indications that with Australia's lowered credit standing, European bankers were liable to dump State Treasury bonds, which then totalled A\$ 18 billion.

It would be folly to think that the easy ride Sydney had in the 1980s, on the basis of its status as a significant financial center, could continue.

In the end, a city's performance depends on the strength of the regional and national economy that it services. It is instructive to look at the joint IMEDE-World Economic Forum 1989 *World Competitiveness Report*, which ranks 23 OECD nations on a 10-factor scale, based on 326 criteria. Australia's ranking overall was 10th, but there were big variations in its rank position on

specific factors. For example, it ranked 3rd on natural endowments, 6th on human resources, 7th on financial dynamism, 14th on innovative forward orientation, 15th on efficiency, 20th on outward orientation. The first three factor rankings look good, but the real problem Australia faces is its poor ranking on the last three factors, which are major obstacles to growth. It is also interesting to note that, overall, Australia has slipped to 13th position in 1990, and on the factor financial dynamism it slipped to 14th position.

The most serious challenge Australia faces is finding a solution to its exporting problems. This requires a number of crucial reforms, including: development of a management export culture; reduction of high sectoral costs in transport, congestion and inefficiencies in ports and airports; taxation reform; stable macro-economic policy and a competitive exchange rate; and the calculated development of key areas of growth.

It is in the cities where many of these key areas are focused, and Sydney inevitably will play a major role. We have shown how Sydney was well placed to benefit from the fusion of financial deregulation and property that occurred in the 1980s. The question for the 1990s is how it and the other cities will perform by becoming centers of concentration of many of the knowledge-intensive, information-based activities that include telecommunications, the computer industry, and tourism. Within the city, the degree to which Sydney becomes, more or less, socially and economically segregated will depend in part on employment location, housing, zoning, and land release policies, as well as, in part, on the future employment structure and the location of unemployment as the city adjusts further into its now well-established role as the competitive leader within the nation and with respect to the emerging urban economies of the Asia-Pacific region.

ACKNOWLEDGEMENT

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CHAPTER 19

THE PACIFIC SYSTEM OF CITIES

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COMMONALITY OF FORCES SHAPING CITIES

The preceding chapters have striking similarities even though they are about very different places. These places scarcely constitute a common tradition or even share any common geography, with the exception of the California cities. They do share a common access to an ocean— the Pacific/Indian —and some common elements of recent history. We have seen that there are underlying economic and social forces that are creating a new system of cities in the Pacific Rim. These new cities are built on an old base. Their newness is not in their recent establishment, but in their recent role as economic gateways for emergent trading, technology, and urban development. In essence, the newness we emphasize in this book is one of role and function. This newness is altering the urban form of these cities in profound ways. We suggest that these alterations in form are becoming the dominant world paradigm. In a sense, the freshness in approach is the result of a political and economic geography that has moved the center of world economic and social wealth from the Atlantic to the Pacific. What we sketch in these chapters is an integrated portrait of how this system has emerged and what it means for city building. It is our contention that the patterns these cities represent are the precursors of the pattern of urban life in the next century.

This final chapter, then, offers our analysis of the shape and the integrating economic and political form that these cities are taking as they begin to play their roles as world leaders. Our analysis follows the Jane Jacobs conceptual framework that views cities, not nations, and their surrounding regions as the base for economic and social interaction.

Old Cities with New Forms

The perspective we draw is one of dynamic growth and development. The cities in this book are undergoing rapid transformation. Cities as widely different as Taipei and Seattle are struggling with the fundamental issues associated with unprecedented urban expansion. These cities are not growing by accident. Each of these communities, as the authors point out, developed by conscious

choice and not by chance. Different examples of these choices include Singapore, described as "The Planned City of the Pacific," in which "Singapore's planners have devised several interventions that have proven effective. These interventions include . . . science based and technology oriented industries" (Corey, Chapter 14). Similarly, Tianjin and Jakarta have revitalized themselves through planned policies to globalize their economic base.

As we can see, it is the nature of these choices that has set an underlying growth and policy dimension that is interesting for urbanists to understand. That is not to say that cities have not made conscious choices earlier in history. However, most of these cities were either bound by national or local economic imperatives. The Pacific Rim cities have set a very different template for their development that is international in character and focused on the inter-relationships of the Pacific. In essence, there is a self-conscious choice of city-scale economic geography almost unparalleled in history. Moreover, there are common themes within these choices that can be drawn from the city cases.

CITY CASES EXAMINED

It is surprising that there are so many common threads among the cases. We see these key ideas as the logical format for city building in the next century and not merely a set of ideas that unify the city case studies. In what follows, we suggest the central concepts that form the framework for understanding the cases.

Post-Industrial Form

Pacific cities have embraced post-industrialism, rather than having reacted to it. In some senses, cities like Tokyo, Singapore, San Jose, and Taipei may be seen as the initiators of the post-industrial form. These cities have moved beyond the industrial model alone, as the sole form of economic organization, to a new service-sector-oriented economic model. These cities illustrate more than an economic system. They are models of how the city uses its soft infrastructure to promote economic development rather than merely being a venue for industrial activity. We are referring here to the active role that all of the cities in our case study have taken to promote the development of advanced service firms. We are not talking about mere "boosterism" or industrial attraction. We are referring to the cities' active sponsorship of intelligent infrastructure such as teleports, technology parks, new universities, and other elements of the knowledge-intensive development. Illustrations of this range from the Osaka/Kansai Science City and Singapore's IT culture to San Diego's bio-medical research and development programs.

In all of our cities, the service sector is either the key or the dominant economic form. Los Angeles, San Jose, Tokyo, and Sydney are all manufacturing and service centers. It is clearly their service-sector base that pushes their manufacturing capacity and not the reverse. In this way, they are the epitome of the post-industrial form, as Pivo and Rose describe Seattle's manufacturing

base —enhanced by the development of its producer-services sector of computer software, finance, and engineering.

In this regard, Jakarta and Honolulu represent opposite ends of what has been labeled in this book as "export-oriented urbanism." Each of our cities is an urban export center of more than products and services. They are tourism and services export capitals as well. In the case of Honolulu, the principle export is pure tourism and lifestyle. Honolulu's fantastic growth can be attributed to its position in the Pacific as a midway point for commerce and for relaxation. But it is more than weather that makes Honolulu tick. It is the fact that it has become a major international commercial center. Similarly, Seattle and Vancouver have become known as pleasant living and working venues. The pleasant environments of these cities are a major urban export for attracting new migrants. These migrants, not new firms, are the basis for the rapid economic growth of these cities. Vancouver's Hong Kong and Chinese immigration underpins much of economic vitality of that community.

On the other hand, Jakarta and Tianjin are cities with a growing service-sector base, designed to catapult them into the global manufacturing system. Jakarta is moving rapidly beyond the bounds of an economic backwater into an internationally competitive capital, similar to Seoul. As export-oriented urban centers, the package of services, tourism, convention, business, and production of goods is being blended into the economic mix. It is interesting to note that among our case studies of each of the major centers, only Seattle with Boeing is dominated by a single large-scale industry. In essence, unlike the old industrial city that was known for a single industry— such as Detroit's auto base —the Pacific Rim cities export a wider urban package to the Pacific and the rest of the world.

Information technology is clearly the dominant theme as the infrastructure base for these new industrial developments. In virtually every case study, information technology is referred to as the core infrastructure. Information technologies for these cities concern more than the transmission of data and telecommunications. They cover the entire gamut of knowledge development, assembly, and communications. Some cities, like San Jose, San Diego, Seattle, Singapore, and Osaka, have turned information technologies into an industrial base. Singapore's success, as outlined earlier by Corey, is phenomenal from any perspective. Equally interesting is the development of the new biotechnology industry in San Francisco-San Jose, based on the presence of a strong information technology base. In each of the case study cities, information technologies are significant. In San Diego, information technology allowed the development of the across-the-border Maquillador project; while in Seattle, Vancouver, Honolulu, and Sydney, information technologies have made these cities important nodes in the global tourism market place, as well as nodes in the capital markets. In essence, information technologies are incorporated into the Pacific Rim cities to shape their economic and social environment, much like the automobile did in an earlier era.

Growth Dynamics

Pacific Rim cities are faced with an interesting set of growth dynamics. Each of our case cities is growing rapidly. Their growth is in response, in part, to the economic wealth forming in and around them. They are also growing because of their inter-linkage. That is, the growth of many Pacific Rim cities is a function of migration within the entire Pacific region, not merely within a single country. Migration from Hong Kong is more than matched by migration from China, Viet Nam, Cambodia, and other small IndoChinese nations to Hong Kong. Similarly, migration from Los Angeles and San Francisco to cities of the Pacific Northwest, like Seattle and Vancouver, is more than offset by migrants from Seoul, Taipei, and elsewhere. In a sense, the cities are feeding one another with new migrants. What characterizes this migration to Pacific Rim cities is its internationalism. Migrants in Seattle, Vancouver, Sydney, and Hong Kong are from one another's respective cities, as well as from the rest of the world. Unlike previous waves of migration, these migrants are not usually fleeing oppressive circumstances or acting as merely an imported labor force. Most of them are highly educated voluntary migrants. They offer each city a wider cultural menu. They tend to internationalize the total environment. Honolulu is the archetype in this regard. It is a truly internationalized community.

Internal domestic migration cannot be neglected either. Several of our case studies make explicit their dilemmas of population growth. For example, Tianjin and Seoul have nearly doubled their populations and their density since the mid-1970s. Population growth brings its own new pressures on all of the existing physical infrastructure. The most-cited infrastructure requirement was the transportation system. It is clear that the quality of air, congestion, and the like are important questions.

The debate over environmental quality has a real home in the Pacific, since so much environmental experimentation has been precedent-setting in this international region. Each of the cities has taken some steps to either mitigate or improve the physical environment. Moreover, environmental planning is a central component of economic planning in San Diego, Seattle, and Vancouver. High amenity is viewed by these cities as a strong economic inducement and just as important as taxes, land, and other economic incentives.

Managing growth is a central concern of each of these places. Growth management has taken on new dimensions in places like Los Angeles, Tokyo, Bangkok, Seoul, and Jakarta. Each of these cities is headed for mega-city status. Planning intelligently on how to deal effectively with overall growth of these communities is an important element in their development. Population and economic planning is a difficult exercise in each city. This will be true throughout the century.

In all of the Pacific Rim cities, growth on the urban periphery is a growing management problem. The development of sprawling suburbs is as much a problem for Tokyo and Los Angeles as it is for Seattle. It is clear that a new growth pattern is emerging with these cities, making them multi-centered rather than uni-centered. San Francisco is particularly illustrative of this pattern, with its several-city configuration which now includes not only Oakland and Walnut Creek but Sacramento,

which is over 130 kilometers northeast of the city. Sydney has a comparable sprawl, with its population center almost 40 kilometers from its CBD. This is increasingly the pattern for Pacific Rim cities. The most disconcerting feature of this sprawl is that it seems not to be amenable to any mass transit solutions. Even the development of mass transit systems like the San Francisco BART or Tokyo's bullet trains seem not to stem the progressive buildup of auto traffic that chokes the city streets.

We are uncertain as to what lessons can be drawn from the growth problems of Pacific Rim cities. There are no easy solutions. Several of these cities are undergoing very comprehensive strategic planning to attempt to come to grips with this problem. Seattle, Hong Kong, and San Francisco are exploring very progressive planning policies and administrative reorganization to deal with growth management. It is too early to say whether these efforts will be successful. However, the fact that they are being undertaken is testimony to the fact that these cities and others are becoming concerned about growth eventually choking off future development options.

Cities as Entrepreneurs

Cities all over the world are becoming increasingly entrepreneurial. City assets such as land, buildings, and money no longer remain passive. This is especially true of Pacific Rim cities. Cities like Los Angeles took city downtown development into their own hands, in the postwar era. In a bolder and more recent example, Singapore, as a city-state, has become the most progressive and aggressive investment partner in its territory. The entrepreneurial spirit that characterizes these cities is astonishing by any standard. They are all cities with very strong economic development programs and invest heavily in enterprises, as well as civic infrastructure. Cities like Singapore's investments are in firms; while Los Angeles invests in downtown development projects, and Honolulu in tourism and convention services. Virtually all of the Pacific Rim cities we explore are innovative public investors and unafraid to become deeply involved in economic development beyond boosterism and tax incentive schemes. Cities like Tianjin are involved in targeted industrial "starting areas," while Osaka is creating its own "technopolis" via elaborate technology investments in business parks, science centers, and teleports. These are merely illustrations of the dominant patterns of aggressive self-determination.

The reasons for the entrepreneurial attitudes relate, in part, to the postwar experience. These cities had to take on their own development as a matter of self-preservation. There was little external capital available to them in a Euro-centric environment. There was no particular view of them in the world order of cities, so they commenced their own economic infrastructure development. In the case of Los Angeles, it was the Port and Airport facilities; in San Diego, the central city, in Sydney, the tourism and arts areas. Asian cities with different governmental structures have had wider opportunities to use national assistance in their internal development, such as in the case of Osaka-Kansai and Taipei. Each of these cities has some formal structure for economic development. Some have devel-

opment corporations, such as Singapore, while others, like Seattle, operate within city government. The mechanisms and tools for development vary but the attitude is similar in each city. They are all interested in being active participants in their own spatial and economic growth and development.

A NEW URBAN FORM —THE PACIFIC RIM CITY

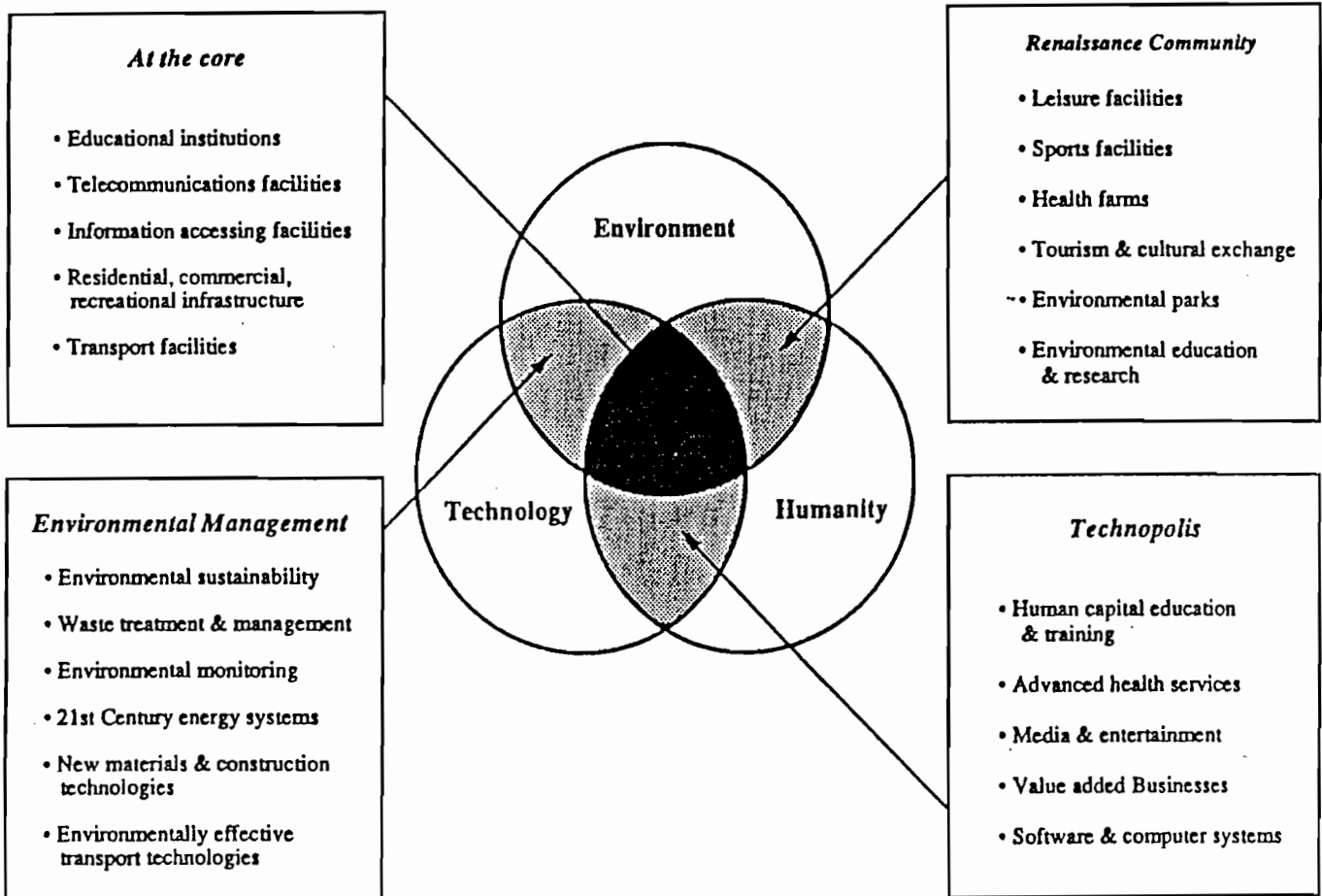
City systems are different in character and function from the old model of a hierarchy of cities. While Pacific Rim cities have identifiable names and character, they do not have the same dominant and subordinate nodal structure as the Euro-city. This is best illustrated in the Los Angeles example, where the city system is clearly a set of interacting and interdependent nodes. Similar patterns are equally true for Seattle and Tokyo, with its contiguous communities. In each of these instances we can see a city system emerging in which the suburbs become important to, and in many instances the central force in, the economy. O'Connor and Blakely (1989) have shown this pattern to be the dominant form of Pacific cities as divergent as Melbourne and San Francisco. This work shows that the new city system has several underlying economic relationships that yield a new urban organization. The new city organization demonstrates "... interdependencies between central cities and suburbs have taken on a new character in recent years, as completely new geographical and functional arrangements of industry and service activities have emerged" (O'Connor and Blakely, 1989).

Figure 19-1 attempts to show in a two-dimensional way the multi-dimensional interrelationships we are trying to describe. As the figure shows, the economic base of the city system we are describing is decentralized because it is knowledge- and information-intensive. As a result, the basic product of the community is the production of new information. The movement of goods is secondary to this function. Therefore, the city paradigm starts with human resources, rather than the needs of industry or raw material locations. This in turn leads to a pattern of *preferred rather than required locational considerations*. That is, human capital choices for low-density lifestyles and more opportunities to exercise social and institutional choices drive the configuration of the city.

Moreover, the need for global transactions becomes central rather than the need for local transactions. This kind of transformation places telecommunications and other non-spatially determined interconnections ahead of inter-community relationships. Mitchell Moss, the leading authority on telecommunications and economic development, states, "As firms expand the physical boundaries within which they offer goods and services, the boundaries of city-based . . . markets are being stretched (Moss, 1991). As a result, new dimensions of place formation, related to such issues as the quality and access to the information and knowledge resources, become paramount. Leinberger and Lockwood (1986) describe this phenomenon, in a series of vignettes on urban villages, in which the new urban villages are of relatively low density with the automobile as the chief means of both long-distance and local transportation. They point out, "more and more jobs move to the suburbs

Figure 19-1

Synergies for the New Technology City



... to bring their offices or industrial plants near their homes." As a result, for the first time in urban planning, the notion of amenity becomes a basic component of infrastructure— as basic as the road system and water.

The Pacific Rim city is becoming the fifth sphere city of the twenty-first century. In the fifth sphere, as depicted in Figure 19-1, the four activities central to life— work, home, recreation, and life-style diversity —are all transformed into a single living system. Figure 19-1 attempts to depict the evolution of human-built form to accommodate the socio-economic system that is arising. The new economy is based in the Pacific for human capital reasons, just as the industrial era was located in the Western Atlantic Hemisphere to capitalize on the juxtaposition of mineral wealth with organizational skills. That is, modern manufacturing arose from Europe and later the United States because the leading nations had iron ore, coal, and hydro-power. The system of cities that arose in Europe supported this system. Today, we find in the Pacific a new urban form based on human resources that have merged the aggregate functions, as a new organic system of cities, into a series of interconnected urban villages that service one another across an integrated *metroplex*, rather than being contained in the old central-city form. Attempts by city planners to re-create the past on this new economic system will surely fail.

In sum, the city of the Pacific is the city of the next century. This city is more than a single monolithic place with a single core, but rather a multi-nucleated environment with common inter-connections as a sub-region and an identity. It operates as an international environment and interacts with other places within the Pacific, as a component of its basic economic structure. These relationships that it forges with its Pacific neighbors are through international communications and information. This city system acts as the incubator of innovation and new technologies, as much as it does a living environment. It is within this context that we see the Pacific as a node for urban/regional cooperation and development.

PACIFIC RIM COOPERATION

The changes that have brought about the emergence of the Pacific Rim region as the center of gravity of world economic production, trade, and finance flows have created prosperity and opportunity, and have increased the self-confidence of regional countries. There has also been a heightening of inter-urban relationships which go beyond the increasing spread of industrialization and complementarities in trading patterns.

In the past few years — and especially since 1989 — there has emerged a growing sense that "as nations and neighbors which depend on trade, we share many common objectives, and that our economic futures are increasingly intertwined" (Evans, 1989, Oct. 3).

Various approaches to enhancing urban cooperation among the nations of the Pacific Rim have emerged. There are a host of common concerns that need to be addressed if economic integra-

tion in the Pacific region is to be facilitated— transport, communications, energy, trade, finance, tourism —and these common concerns "provide a compelling rationale for enhancing regional cooperation" (Solomon, 1989).

For some decades, Europe has developed an infrastructure of multinational and inter-urban institutions to manage its independence and to facilitate its integration, which culminated in 1992 with the creation of the European Community single market. The Pacific lacks such a regional mechanism of collaboration. Institutional links between the US and nations of the Pacific Rim are meager relative to those with Europe, and are restricted to treaties such as ANZUS. Within the Pacific Rim, and especially within the western Pacific, formal organizations for international urban cooperation are non-existent.

To some extent, the lack of a Pacific Rim regional organization reflects the vast expanse of the region, its cultural diversity, and historic rivalries and resentments generated in the past which to a degree still fuel lingering distrust—including the tensions between China and Hong Kong, China and Taiwan, and Japan and many other East Asia nations. In addition, there is a north-south dimension which relates to the widely varying levels of economic development in the Pacific Rim, making it difficult to formulate cohesive regional policies. These range from the advanced industrial states, such as the US, Canada, Japan, and Australia, to the NICs, such as the Republic of Korea, to the developing countries, such as Indonesia, the Philippines, and the Latin American nations.

The Asia Pacific Economic Cooperation Initiative

But the recent crescendo of trade imbalances and disputes, the maturing of the NICs beyond current frameworks of trade and investment mechanisms, the financial power of Japan, and the anticipation of the 1992 European economic integration, plus the growing realization through rapid structural adjustment of common futures between and among many of the nations of the Pacific Rim, have combined to produce an unprecedented head of steam to enhance the move towards formal economic and urban institutional cooperation in the region. While the idea has been around for some time, a significant step towards potential development of formal mechanisms took place at a meeting of ministers from many of the nations of the Pacific Rim in Canberra, Australia, November 6-7, 1989, and a year later in 1990 in Seoul, South Korea. This is symptomatic of the new consensus of feeling that "the time is right" for the formation of a mechanism for Asia-Pacific Economic Cooperation (APEC), as the world is about to enter "the Pacific century." In the words of the US Secretary of State, James Baker (1992),

Commerce offers the most natural approach to fostering greater regional cohesion. This is why the US and eleven other Pacific basin economies came together (in 1989) to initiate the APEC process. We see APEC as an important mechanism for sustaining market growth, for advancing global and regional trade liberalization, and for meeting the new challenges of interdependence.

Regional Urban Cooperation: Potentials for Collaboration

Regional economic cooperation among the nations of the Pacific Rim is now seen as a desirable course of action. The objectives and potential practical achievements have not been fully formulated, but might entail a number of broad approaches which reflect the developing thrust of the twelve-nation APEC forum with ten working groups. In the context of the urban issues and interdependencies developing among and between cities of the Pacific Rim discussed in this book, this might include the following.

(1) Strengthening individual and collective capacities of urban metropolises for analysis and policy formulation.

Based on existing economic inter-linkages in the region, it would be useful for major urban systems to know about what each is thinking on issues such as regional trade patterns, financial flows, exchange of services, tourism, and direct foreign investment in the region.

(2) Liberalizing trade within the Pacific Region.

Currently, trade between countries in the region is characterized by policies that protect most highly those industries which compete against some of the least protected industries in the world, e.g. high protection exists in Japan, the Republic of Korea, and Taiwan against some of the world's most efficient agricultural producers, including Australia and the US. The reverse is the situation in the production of motor vehicles and in the clothing, textile, and footwear industries, where efficient producers in the ASEAN group and Hong Kong compete against protected markets in the developed countries of the region. Regional trade cooperation could lead to better relationships among urban communities within the region. Moreover, harmonizing relationships among large urban cities can be viewed as a vehicle to reduce international tensions.

(3) Alleviation of future urban problems.

A stronger framework for regional cooperation among regional cities would assist in anticipating, discussing, and resolving differences sensibly and openly, and would ensure that potential difficulties are resolved through dialogue. This dialogue could be used to ease any similar issues that interfere with better relationships.

(4) Projecting and protecting urban interests in wider economic forums and negotiations.

Interests of the Asia-Pacific nations on specific issues under negotiations in the current Uruguay Round of GATT will not always coincide. But as these nations build their success on trade and exports, there will thus be a common interest in building a common urban planning framework as a collective approach to immigration, pollution, telecommunications, and foreign investment in the local economy.

(5) Building new urban infrastructure coordination and development approaches.

Specific areas exist where there is the potential of significant benefits for cooperation in addressing common problems in a rational manner:

- **Transportation** —the increasing movement of goods and people requires improvements in port facilities, cargo management, airline capacity, custom clearance, safety controls, and personnel training.
- **Telecommunications** —enhancing the region's communications infrastructure and information networks would promote economic growth by facilitating the flow of information and ideas.
- **Energy** —there is a need to enhance access to stable and predictable energy supplies by pooling data on energy use, demand projections, and resource availability, and to collaborate on energy conservation.
- **Fisheries** —there are opportunities to improve regional cooperation in resource management, especially in addressing the sustainability of markets for fish and fish products, optimum utilization of fishing vessels, and prevention of over-fishing.

(6) Environmental protection.

Resource depletion, coastal management, pollution control, and other environmental issues can be more effectively managed through region-wide cooperation.

(7) Coordination of mutual assistance efforts.

Regional cooperation could enhance dialogue and coordination of knowledge resources. The goal of this effort would be to share expertise across the region in economic development and other long-term issues with common urban foci.

While the potential benefits of APEC as it inevitably expands to include most of the nations of the Asia-Pacific Region are great, they are unlikely to be achieved quickly. There are many difficulties to overcome, as evidenced by the fact that the origins of APEC date from numerous proposals developed and promulgated in the 1960s. There is considerable diversity in the region based on disparate levels of economic development, different cultures, and continuing political tensions. But, while there is diversity, there are also several common features which should assist the thrust toward formalization of regional economic cooperation that could have profound impacts on the form, structure, and functioning of Pacific Rim cities. These include: the dynamics of urban growth and immigration; the rapid structural adjustment which has made them successful and created much closer trade and investment links among regional economies; the lowering of trade barriers; the uncertainty over the EC single economic market and its impact on world trade; and developing common urban infrastructure for the next century.

It has been emphasized by government officials and politicians in the various proposing countries that APEC should emerge from a regional consensus, that it should not be a trading bloc, and that it should avoid being seen as imposing a "made in America" blueprint for a trans-Pacific grouping.

It needs to encompass a wide array of issues aimed at effective management of growing regional interdependence, and take into account the regional diversity of the Pacific region's social and economic systems and the markedly different levels of national development. Its beginnings are through membership by nations whose economies are committed to enhancing private initiative and free-market policies to facilitate the free flow of goods, services, capital, technology, and ideas. It will need to complement existing institutions and processes such as the Uruguay Round of GATT, the OECD, and ASEAN; be flexible and adaptive in a way to reflect the changing needs of regional economic activity and the contributions that both private and public sectors can bring to enhance cooperation; and be committed to further trade liberalization.

An Urban Dimension to APEC?

We believe that there are strong and compelling rationales for the formation of an organization to represent urban interests to complement APEC. The scope of participation in, and possible membership of, such an organization should consider the leading Pacific Rim cities listed in this book. A Pacific Rim Secretariat could be established in Tokyo, San Francisco, or Sydney (three cities that could draw attention and provide national support for the effort); and a biannual Pacific Rim Metropolitan Conference could be hosted on a rotating basis among the major Pacific Rim cities. The organization should be composed of chief elected officials, senior administrative officers, private-sector leaders, and leading academics. The recently formed (1989) and rapidly expanding network organization, the Pacific Asian Committee on Urban Development, could readily perform this role.

Strategic Considerations

In strategic terms, the Pacific Rim region has always been multi-polar. This has been made more so as a result of rising economic confidence and declining East-West tensions and confrontation. A number of specific strategic issues complicate the economic dynamics and growing interdependence of the Asia Pacific region. These include Japan's economic dominance and the legitimacy and acceptability of Japan taking a strong role; China as a regional role and the participation of Chinese cities, although this has been complicated by recent leadership changes in Beijing since the disturbing events of June 1989; India as an important player in the Asia-Pacific; the issue of how to include the developing nations of Latin America in this group; and the future role of the US in continuing to help provide a regional environmental framework favorable to urban economic growth.

CONCLUSIONS

The Pacific Rim region is increasingly charting growth in trade, air travel, investment flows, and global production systems. It is a vast, politically and culturally diverse megaregion of the world, with considerable strategic significance.

We have suggested a new model for urban settings and a new organization of urban institutions as a result of the emergence of interdependent Pacific Rim cities and city regions. We are boldly and deliberately proposing relationships among the most advanced and economically stable Pacific Rim urban metropolises. Our concept is based on the notion that these cities are quasi-states in themselves. They are the platforms for trade and economic development for their nations. The relationships among them are growing. In fact, their relationships with one another economically are as important, and often more important, than relationships within their respective nations. Our proposals may seem far-fetched but they are grounded in an emerging reality which is sketched in this book. Now is the time for the Pacific Rim Cities to affirm their rightful place as the leaders of the metropolitan world.

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