DISCUSSION PAPER

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HONG KONG AND SINGAPORE:
URBAN MANAGEMENT AND ECONOMIC SUCCESS

by

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The views presented herein are those of the author(s), and they should not be interpreted as reflecting those of the World Bank.
This working paper was originally supposed to be a brief back-to-office report based on a short visit I made in early November 1986 to Hong Kong and Singapore. However, the experience of these two city-states is so unique in terms of economic performance and its relationships with urban management, that I decided to prepare a more elaborate document. The paper relies heavily upon the abundant literature I collected during my visit to these two city-states.

I appreciate the courtesies The Hong Kong and Singapore authorities extended to me despite the short notice I gave of my visit. I would like to express my thanks to all the officials I met, in particular, Messrs: Graham Barnes, Secretary for Land and Works; Haider Barma, Deputy Secretary, Civil Service Branch of the Government and Secretariat in Hong Kong; Jaspal Singh, Deputy Director, Revenue Division, Ministry of Finance, and Mr. Au Eng Kok, General Manager of the Urban Redevelopment Authority in Singapore.
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Summary and Conclusions

(i) Despite their almost complete lack of natural resources, Hong Kong and Singapore have achieved uncommon economic growth. Together with the two other new industrialized countries (NIC's in Asia, namely, South Korea, and Taiwan), they are now in the league of upper middle-income developing countries with per capita GNP of US$6,300 and US$7,300 equivalent for Hong Kong and Singapore, respectively (para. 4). In the medium term, both economies will continue to depend heavily on their prime export markets, particularly the U.S. and on their ability to remain competitive (para. 5).

(ii) Many factors have contributed to the two city states' drive for economic and social development. Perhaps the most important one has been the role played by the government in the development process, i.e., the emphasis given to fiscal stability, controlled monetary growth, free flow of capital, and limited foreign financing; the well-planned increases in public expenditures in accordance with economic performance; their minimal interference in the private sector through a very flexible regulatory framework; the provision of tax incentives to the workers and investors; the supply of non-subsidized urban services and, last but not least, the paring of bureaucracy to a viable minimum. This governmental sense of economic reality, complemented with the pragmatic character of the Hong Kong and Singapore people, is an example of the attitude that many LDC's should have. In the early 1980's, this constructive attitude was instrumental in the swift shift of the two economies from extensive dependence on manufacturing to an expansion of the financial and service sectors (para. 6).

(iii) The two economies have also benefited from government continuity, absence of political interference, relatively simple decision making processes. Strict controls over urban immigration have facilitated the provision of basic services and employment to most of their population. Most of these conditions could hardly be replicated in LDC's, except maybe for the stringent measures taken by both governments to control natural population growth (paras. 7 to 17).

(iv) City planning and urban renewal are the cornerstone of the two governments' policies to provide good living and working environment for their populations. Basically, the two city-states follow the old British approach to urban planning, i.e., statutory plans have been developed and should govern, in principle, all decisions regarding zoning and future broad land use patterns, including public works and housing construction standards. In practice, however, these plans lack flexibility, and the two governments have been giving emphasis to "strategic planning," whereby economic realities are taken into account in the location of housing and industrial developments, the choice of adequate infrastructure, and the provision of urban transportation and services. The lesson learned is that too rigid urban master plans are
not adapted to the changing economic environment of modern cities, and that while they can still be used as governing instruments for land regulations, a more practical and strategic approach should be adopted for decision making regarding land management, industrial and housing locations, and investments in urban infrastructure and services (paras. 22 to 24).

(v) Because of limited land area, the two governments have enacted precise regulations on the use of land by the public and private sectors. Generally, priority is given to governmental development programs, and private owners are compensated at market prices when their properties have to be taken away by the state. Land sales (by auction in Hong Kong) represent a large source of government revenues: US$500 million in Hong Kong and US$232 million in Singapore in 1985. The efficient approach to land use in the two city-states illustrates the importance of land management in the urban-development sector. Policies similar to those adopted by Hong Kong and Singapore could be implemented by other LDC's, perhaps, however, with the additional qualification that in LDC's cities, generally large land areas belong to the private sector and might handicap governmental efforts to pursue efficiency and equity in the management of land (paras. 25-27).

(vi) The efficient provision of urban services is vital to the growth of urban areas and to efficient business performance. The governments of Hong Kong and Singapore have chosen different approaches to supplying electricity, water, gas, and telecommunications to their populations, industries, and commerce but have generally adopted the same policies of efficiency and equity. In Hong Kong, electricity and gas are supplied by private companies, with the government exercising a financial control over financing plans and tariffs. Water supply is government's responsibility, and telephone services are provided by private companies operating under governmental franchise. In Singapore, statutory boards are responsible for the provision of these services, but the government has recently stated that most statutory boards in the country should be privatized. Except for water supply in Hong Kong and specific telecommunication activities in both countries, utilities are managed on a commercial basis, with almost no subsidies from the government and have achieved financial viability through the fair pricing of their services. The lesson learned is that high levels of productivity can be achieved in the provision of urban services by either the public or private sectors. Autonomous utilities operating on a commercial basis under light state regulation seem to be one of the most efficient institutional setups (paras. 33-41).

(vii) Both governments have given priority to the development of their transport and communications systems. There are 1,270 kilometers of roads in Hong Kong and about 2,569 kilometers in Singapore. Roads and other infrastructure construction is the state's responsibility. The two city-states have been confronted with the issue of traffic congestion. In 1985, there were 300,000 vehicles registered in Hong Kong and 490,000 in Singapore. Both governments have embarked upon the
construction of mass transit systems in order to alleviate the flow of motorized vehicles, but this construction has proven to be not only very expensive, but also, insufficient. While the "area licensing scheme" has been successful in Singapore, the "electronic road pricing" system had to be abandoned in Hong Kong. Even the high registration fees and road taxes in Singapore have had a limited effect on the number of new vehicles registered every year. Most experts agree that there is no unique solution to alleviating traffic congestion in urban areas, and that the right approach should consist of a series of different measures for car registration, parking fees, gasoline prices, area licensing, mass transportation, and the like. Another conclusion is that privatization of public transport increases efficiency, provided, however, a monopoly situation is not created. In Hong Kong and Singapore, all urban transport services (except the railways) are run by private companies or cooperatives. Encouraging the private sector has permitted the supply of a whole range of urban transport services of different qualities and prices that the population can choose to use in accordance with their levels of income (paras. 42-49).

(viii) Full employment has been a priority item in the agenda of both governments. Despite recent economic difficulties, the unemployment rates have been maintained at below 5%, and productivity has been growing at an annual average of 3.9% and 4.6% in Hong Kong and Singapore respectively, during the period 1979-84. Despite the 1985 slowdown of the economies the high levels of employment have been maintained, with further increases in employment in the service sectors offsetting the declines in the manufacturing and construction sectors. Labor legislation varies between the two countries. However, this legislation does not set minimum wages, and the liability to pay compensation falls on the employer. In Singapore, a compulsory savings scheme, the Central Provident Fund (CPF), provides financial protection to workers after retirement or when they are no longer able to work. Members can use their savings to buy residential properties, meet hospitalization expenses, and invest in the financial markets. The CPF is a basic factor in the Singapore's high gross national savings rate in 1984 of 42% of GNP. The government recently decided to reduce the employer's contribution to the CPF in order to reduce wage costs and stimulate incentives. The lesson is that high employment and productivity rates can be sustained in periods of economic crisis through structural adjustments and government incentives (paras. 18-21).

(ix) Housing continues to be a major commitment for both governments. In Singapore, 84% of the population lives in public apartments as compared to 49% in Hong Kong. In 1985, the Hong Kong Housing Authority delivered about 50,000 units, and the housing program absorbed one third of total public expenditures. In Singapore, the Housing Development Board (HDB) completed about 61,000 units at a cost representing 47% of total development expenditures in the country. In both city-states, the governments subsidize the housing programs by providing free land for rental and home ownership projects. In Hong Kong, the Housing Authority manages 118 housing estates with 2.3 million
tenants. Public rents for low-income people are also subsidized. Many of the privately owned buildings have not been maintained adequately because of rent control. In Singapore, the Housing Board has operated with a deficit. Public rental housing is provided to families whose monthly income does not exceed US$400 equivalent. Purchases of HDB apartments are made with a 20% deposit, the balance being paid over 20 years. Buyers use less than 30% of their income to purchase their homes. Since their savings under the CPF scheme amount to 50% of their incomes, in principle, all Singaporeans should be able to become owners of their apartments. The extensive public housing programs conducted by both governments have taken a large share of state revenues, but they seem to have achieved their main objectives, i.e., they have provided decent shelter to the whole population, a growing proportion of which is becoming owners of their apartments. The provision of free land and non-indexed mortgages for public housing, the huge housing stock of public rental housing, and the control of rents have certainly introduced many distortions and limitations in the housing market; but with limited land availability public intervention has been necessary, leaving the private sector free to deal with non-subsidized housing for high-income level people and land transactions at market prices for industries and commerce. Perhaps, the most successful housing finance policy has been, that housing should be financed either from real savings (Singapore) or indirectly from taxes (Hong Kong), without the creation of money as has been the case in many LDC's where unstructured housing programs have plagued the economies because public housing financing led to increased inflation. In addition, housing subsidies in Hong Kong and Singapore have been transparent, and housing standards have been maintained within affordable levels. The sale of public rental estates to the private sector and the elimination of cumbersome rent regulation and control would make the housing market more efficient and less costly to the states. Even with these improvements, the experience of Hong Kong and Singapore might not be replicable in many LDC's (paras. 26 to 29).

The underlying features making the Hong Kong and Singapore experiences almost unique among LDC's is their governments' commitment to development and their populations' dedication to work and progress. This paper does not intend to be exhaustive in its coverage (e.g., the education and health sectors are not reviewed) and, as such, is more informative than didactic. It is hoped, however, that the readers will gain a sense of what can be done in countries deprived of natural resource. The first chapter describes the main traits of the two city-states' economies, and the second chapter concentrates on urban facilities and management.
Common Profile

1. There are many similarities between Hong Kong (a British territory since 1841) and Singapore (a fully independent country separated from Malaysia since 1965). Both have a very limited land area (Hong Kong 1,055.6 square kilometers and Singapore 621 square kilometers) and no significant natural resources other than their deep water harbors. However, both have excellent geographical locations, political continuity, well-developed infrastructures, strong industrial sectors, excellent transport and communications systems, sophisticated financial systems, and well-educated and English-speaking workforces. At the end of 1985, Hong Kong and Singapore had populations of 5.5 million and 2.4 million respectively, with an annual growth rate of about 1.1% for both cities. Their populations are migrants. In Hong Kong, 98% of the population is of Chinese origin. In Singapore 77% are Chinese, 16% Malays, and 7% South Asians.

Government

2. The Hong Kong government has developed from the basic pattern applied to all British governed territories overseas. The head of the government is the Governor who is appointed by the Queen. He presides over the Executive Council, which advises on policy matters; and the Legislative Council, the primary function of which is enacting legislation, including the appropriation of public funds. Uncertainty about the territory's future was dispelled by the signing of the Sino-British Agreement in December 1984 which provided that the Hong Kong special administrative region will be established in July 1997 and will retain the status of a free port with free movement of goods and capital.

3. Singapore is an independent and sovereign republic and a member of the United Nations (but not of UNESCO), the Commonwealth, and the World Bank. Its constitution provides for a unicameral parliamentary system of government based on full adult suffrage, with compulsory voting. The head of the state is the President of the Republic, who is elected by Parliament and who appoints the Prime Minister. The Prime Minister leads the Cabinet with which rests the executive authority. The laws of the country are based on the British judicial system.

The Economy

4. Hong Kong and Singapore depend on imports for virtually all of their material requirements, including food and other consumer goods, raw materials, capital goods, and fuel. They must, therefore, export on a sufficient scale to generate the foreign exchange earnings to pay for these imports, and the volume of exports must continue to grow if the
population is to enjoy a rising standard of living. Both governments have succeeded in achieving this objective in the last two decades and the early 1980's with a minimum of borrowing from abroad. During this period, their average annual GDP growth has been about 8% in real terms. As a result, they are now in the league of the upper middle income developing countries. Their GDP per capita in 1984 were among the highest in the East Asia and Pacific Region, with US$6,300 for Hong Kong and US$7,300 for Singapore. The populations of the two cities also enjoy a high standard of health and level of education. This is reflected in the high average life expectancy at birth, which is currently 75 years and 71 years in Hong Kong and Singapore, respectively, and in the high number of persons between 16-years enrolling in secondary schools (68% in both city-states).2/

5. In 1985, the two economies slowed significantly. The downturn resulted from a confluence of trends affecting external and domestic demand. In Hong Kong, a decrease in domestic exports was the major factor contributing to its weak economic performance. In Singapore, the large construction boom of the early 1980s, together with ever-increasing wages and other operating costs, concealed underlying weaknesses arising from both international and local factors. By 1985, Singapore's traditional industries -- ship-repairing, rig-building, oil refineries -- were all hit by declining world demand. Domestically, the country was becoming a more costly place to do business relative to its competitors. The rate of return on capital fell, investment commitments were reduced, and simultaneously the construction industry entered into a recession period because of over-supply of hotels and properties. The prospects for 1986 are brighter with both countries having been successful in diversifying their economies from manufacturing to financial and business services, transport, insurance, and tourism. In addition, Hong Kong will benefit from low oil prices and the depreciation of H.K. dollar along with the US dollar against the Japanese yen. Productivity in Singapore should increase with recent incentives provided by its government, particularly in the manufacturing, transport, and communication sectors. In the medium-term, both economies will continue to depend heavily on their prime export markets, particularly the United States, and on their ability to remain competitive among other New Industrialized Countries (NIC's) such as South Korea and Taiwan. In terms of economic policy, this would mean that the government should continue its minimal involvement, while ensuring an adequate base for monetary policy, the promotion of sound business practices, and the provision of the right kind of business environment.

Government Intervention

6. The two governments' primary role in the economy has been to provide the necessary infrastructure, together with a stable legal and administrative framework in which commerce and industry can function efficiently and effectively with minimal interference. Both governments

normally have intervened only in response to the pressure of economic and social needs. They have not protected nor subsidized manufacturers, public utilities, and other public services. The narrowly based tax-structure of both city-states with low tax rates has provided incentives for workers to work and for entrepreneurs to invest. The two governments have also striven to maintain a balanced budget and to increase public sector expenditures in accordance with the growth rate of the economy. Similarly, their monetary policy has been to maintain price stability and provide liquidity at levels compatible with the path of domestic economic activity. Finally, both governments have been very active in providing adequate housing and basic services for their population.

7. The management of the economies in Hong Kong and Singapore is greatly facilitated by the fact that central and local governments are combined and that their decision-making process has not been perturbed by political interference, as is often the case in many LDC's, where economic decisions are hampered by two or three-tier government structures and a much more complex political life. While the compact nature of these two city states might not be replicable in most LDCs, the promptness and efficiency with which they have reacted to economic problems still constitutes a lesson that many governments would like to follow. Two examples will illustrate how well the two governments have taken advantage of this privileged environment.

8. In October 1983, after a period of much instability in the Hong Kong dollar, a revised system (commonly named Currency Exchange Board) was introduced by the Exchange Fund, the monetary institution in charge of the government's financial assets. Under the new system, any rise in the note circulation, made by the two note-issuing banks (the Hong Kong and Shanghai Banking Corporation and the Standard Chartered Bank), has to be matched by a US dollar payment to the Exchange Fund, and any fall in circulation is matched by a similar payment from the Fund. This measure has ensured that the market exchange rate has been stable vis-à-vis the US dollar (US$100 = HK$7.80) and means that the exchange rate is no longer a major variable element in the economy's adjustment process, i.e., that interest rates, money supply, and the level of economic activity, now tend to adjust automatically to balance of payments' pressure without government intervention.

9. In the wake of Singapore's economic recession in 1985, the Ministry for Trade and Industry appointed an Economic Committee in April 1985 to review the progress of the Singapore economy and to identify new directions for its future growth. In early 1986, the Committee's recommendations called for restraint in the growth of wages and other costs of production, enhanced pricing by policies of statutory boards through productivity increase, and a more flexible regulatory environment that would facilitate the growth of the private sector. As a result, the government froze wages for two years and initiated fundamental reforms in the wage payment system, phasing out steep and continuously increasing timescales and introducing variable compensation systems, such as variable bonuses, productivity incentive schemes, and share participation schemes. Also, the employers' contribution to the CPF was reduced from 25% to 10% (para. 20). More recently, the
privatization of public enterprises has been approved, along with further liberalization of the market and lower income taxes rates.

Tax Incentives

10. Hong Kong's and Singapore's economic success has been largely the result of incentives provided for business and individuals through low tax rates. Taxes are levied by both governments on income or profits arising in or derived from their territories, and on property. Neither jurisdiction has a capital gains tax, gift tax, nor wealth tax, and in both there are few, if any, municipal or local taxes. Thus, the two tax systems are very similar although they differ quite substantially in their structures and rates.

11. Profit rates are currently at 18.5% for corporations and 17% for other entities in Hong Kong. No distinction is drawn between residents and non-residents, dividends received from a corporation subject to profit tax in the territory are excluded from assessable profits of the recipient, and deductions are available for interest payments. The current corporate tax rate in Singapore is 33% but is limited to 10% for offshore income. Companies can deduct from their profits capital allowances for industrial buildings and plant and machinery. Tax incentives are available for pioneer industries and export and expanding enterprises.

12. After deduction of allowances (viz. family size and charitable donations), in Hong Kong salary tax is charged on a sliding scale from 5% up to 25% of the taxable income. Progressive rates in Singapore range from 4% to 40%; however, as a means of increasing consumers' demand, the government introduced a rebate of 25% in 1986, decreasing to 15% in 1987.

13. In Hong Kong, the property tax is levied on land and buildings, with property occupied by the owner as his residence being specifically exempted. The property tax is calculated at the rate of either 17% of the annual rent or 80% of the assessable value of the property, whichever is lower. If the premises are used for non-corporate business purposes, the property tax paid may be offset against profits tax. Corporations are exempt from property tax. The property tax is payable in addition to the occupancy tax (called "rates"), which are charged at 7% at 11% per annum on the assessable value, depending on the location of the property. In Singapore, the property tax is at a uniform rate of 23% of the assessed value of buildings and land. It is payable by the owner. From July 1986 to 1988, a rebate of 50% has been granted on property taxes paid for industrial and commercial properties and land (including residential land owned by developers).

14. Both city-states have no import tariffs, and duties are levied only on tobacco, liquor, and some petroleum products. There are also duties on some consumer products, such as motorcars. No export duties are imposed.

15. In Hong Kong, direct taxes (earnings and profits) represented 39% of total revenue in 1985, and indirect taxes (duties, general rates,
motor vehicle taxes, royalties, etc.) about 28%. In Singapore the corresponding figures were 31% and 35%, respectively.

**Immigration**

16. The management of urban growth in the two city-states has also been dependent upon similar policies adopted by both governments to control immigration and natural growth. The population growth rate in Hong Kong between 1975 and 1985 was maintained at an annual average of 2.1%—this despite the large influx of immigrants from China in the years 1978-80 and the influx of boat refugees from Vietnam. Illegal immigration has been the greatest threat to limiting growth to a low level. Measures taken to contain immigration include the abolition of the "reached base" policy (which allowed illegal immigrants from China who had successfully entered Hong Kong to stay), the enactment of legislation requiring all residents over the age of 15 to carry legal documents of identity at all times, and the introduction of a more secure identity card, backed up by an efficient computer-based record system. In addition, security forces at the border and in Hong Kong's waters are instructed to detect and intercept aliens. The population's annual growth rate in Singapore was limited to below 1.4% between 1975 and 1985. This limitation was achieved through the same kinds of measures to control immigration as Hong Kong used. All lawful residents of Singapore who are 12 years old and above are required to register for identity cards. When identity cards are lost, holders must apply for replacements within 14 days. A change of residence must be reported within 14 days. The Aliens Ordinance imposes a monthly quota on immigration, and computerized checks are conducted at the border with Malaysia, at the international airport, and at the railway station.

17. It is evident that these types of measures might not be taken by governments of LDC's to control the flow of immigrants to their prime cities. However, both city-states have also been successful in controlling natural growth and their experience could be replicated in developing countries. In Hong Kong, the government-subvented Family Planning Association runs 30 birth control clinics and provides services in such areas as premarital counseling, contraception, sterilization, vasectomy, and infertility. It also promotes health education, specifically family planning and sex education. In Singapore, the Family Planning and Population Board (having been transferred to the Ministry of Health) has been successful in lowering the fertility rate to the replacement level. Its functions are to disseminate information pertaining to family planning and to undertake population control programs mainly through the provision of contraceptive services.

**Employment and Social Welfare**

18. In 1985, the labor force totaled 2.54 million in Hong Kong and 1.20 million in Singapore, or about 50% of their total population. Manufacturing employs the largest number of workers in both territories and accounts for about 40% of the total work force. Despite recent economic difficulties, the two city-states held their unemployment rates at below 5% and have continued to show high annual productivity growth during the period 1979-84, averaging 3.9% for Hong Kong and 4.6% for
Singapore. The two governments are so concerned with productivity that they have institutionalized its promotion. In Hong Kong, the Productivity Council provides a wide range of industrial and management consultancy as well as process control services. It conducts a diverse range of training programs, organizes industrial exhibitions, and undertakes development research in priority areas. In Singapore, the National Productivity Council is entrusted with promoting the Productivity Movement, which was conceived in 1981 to create nationwide awareness of the need for productivity. Since then, its emphasis has shifted to promoting the "productivity will," in particular, to encourage management and workers to strive for quality in their services and products and to reduce cost and wastage.

19. These remarkable achievements have been accompanied by strenuous efforts on the parts of both governments to enhance their labor legislation and social welfare activities. Their approaches to social equity and conditions of employment have, however, been somewhat different, although quite successful in both cases. There is no statutory minimum wage rate in Hong Kong. The prevailing wage level is essentially the result of an interplay of the economic forces of supply and demand. The Employment Ordinance grants workers rest days, holidays, annual leave, and other entitlements. Many employers provide their staff with food, lodging, and transport allowances. In 1985, the Ordinance was amended to provide a long-service payment to employers who have worked for the same employer for a specific number of years and have been dismissed for reasons other than disciplinary or redundancy. Under the Employers' Compensation Ordinance, employers have the responsibility to compensate employees and dependents of deceased employees in respect of injuries or death caused by accidents or occupational disease arising from the course of employment. On the other hand, social security benefits are all non-contributory. They include the Public Assistance Scheme, which aims at bringing the income of needy individuals and families up to a prescribed level, and the Special Needs Allowance, which provides special lodging accommodation to Hong Kong's residents over 60 years, and disability allowances to any person, regardless of age, who is severely disabled. Several subsidized welfare agencies also provide a broad range of community support services for the elderly.

20. In Singapore, the Employment Act stipulates the basic terms and conditions of employment. Similar to Hong Kong, labor legislation does not set minimum wages for specific occupations, but the National Wage Council provides guidelines on wage adjustments that serve as a basis for negotiations between employers and employees or their unions. Compensation for injuries and disease sustained by worker in their job is covered under the Worker's Compensation Act. As in Hong Kong, the liability to pay compensation falls on the employer. Perhaps the most striking difference between the two city-states is the existence in Singapore of the Central Provident Fund (CPF), a national social security scheme. Its primary objective is to provide financial protection to workers after retirement or when they are no longer able to work. Under the scheme, both the worker and his employer contribute to the worker's savings with the CPF. Since April 1986, the rate of employer's contribution has been 10% of the employee's monthly salary,
and employees contribute 25% of their salary. The CPF Board pays an annual interest of 6.5% on the savings, i.e., a positive interest rate of about 3% considering the low inflation rate of recent years. CPF members can withdraw their savings in a lump sum at the age of 55 years or upon leaving Singapore. Members can use their savings to buy residential properties built by the government or private developers. Part of savings can be used to meet hospitalization expenses, and part can be invested in the financial markets.

21. Full employment, increased productivity, and improved social welfare, are praiseworthy national policies that many LDC's governments should adopt. In Hong Kong and Singapore, high levels of employment and productivity have been maintained thanks to fiscal and financial incentives granted to the private sector for reorienting itself to new service activities and thanks to the dynamism of the private sector in adapting itself to new market conditions. It seems also that the labor legislation prevailing in both city-states has met its objectives, although a full evaluation of its success would require undertaking a detailed analysis not within the scope of this paper. The CPF scheme in Singapore has allowed the government to engage itself in massive, successful, public housing production (para. 30). However, most Singaporeans have now a decent lodging, and the CPF scheme might have to be modified, as employer-contributions to the fund form a large component of labor costs and as the population becomes more interested in keeping full control over their total income.

URBAN POLICIES AND MANAGEMENT

City Planning

22. Unlike larger countries, there are in Hong Kong and Singapore considerable constraints on planning because the basic issue in land and development is how to resolve satisfactorily the conflicting and competing demands of the public and private sectors. Thus, city planning has been, since the early years, a major concern of the two governments. While in both city-states planning legislation generally follows the old British practice of regulating public and private development through zoning and reserving land needed for public purposes, strategic planning is being given increased attention.

2/ Contributions to the CPF explain in large part why Singapore has now the highest national savings rate in the world, 42% of GDP. It means that much of the output of goods and services in the economy was not consumed (total private consumption expenditure represented in 1985 about 45% of GDP, as compared to 67% in Hong Kong). This high savings rate allowed a high rate of gross domestic capital formation (41% of GDP in 1985 vs 24% in Hong Kong). There was a flaw, however. Higher investments did not go into productive machinery and equipment, but were channeled into construction projects, such as infrastructure, housing, and commercial development.
23. In Hong Kong, statutory plans for existing and potential urban areas are governed by the provision of the Town Planning Ordinance, under the direction of the Town Planning Board. These plans show areas set aside or zoned for residential, commercial, industrial, government, institutional, and other purposes. They provide a guide to public and private investments by indicating the future broad land use pattern, including major public works for developing areas. A schedule of notes is attached to each statutory plan showing the land uses permitted in a particular zone together with other uses for which the Town Planning Board's permission must be sought. Guidelines for land uses, standards of provision for community facilities, and locational and site requirements are contained in the Hong Kong Planning Standards and Guidelines. Physical planning is made in departmental plans. In order to meet the long term social and economic needs of Hong Kong, a Strategic Planning Unit was established in 1980 under the Secretary of Land and Works. In 1984, the unit completed a Territorial Development Strategy which sets out paths along which investment and development should be directed to achieve the greatest effectiveness in the fields of housing, industry, recreation, and infrastructure, including inter-urban transport links and services. The strategy has since been updated periodically, and planning and engineering feasibility studies are being undertaken by the Urban Area Development Authority.

24. Singapore started with a statutory master development plan in 1958. Because it regulates the urban land values as well as development changes, the plan it still used as a basis to control private development. Many of the basic assumptions underlying the plan, however, are at variance with the great changes in the direction and tempo of economic and social policies of the 1960s. In 1960, the Planning Department was created under the Ministry of National Development. The Planning Department, together with the Master Plan Committee, members of which represent the major development authorities in the country, play an important strategic planning role as they coordinate the development proposals of the other government departments and statutory authorities, particularly the problems concerning competing land claims. In 1967, the Planning Department launched the State and City Planning Project. It called for the preparation of a long-range comprehensive development plan with an integral transport plan and the development of a program and policy for the redevelopment of the central area. Arising from the project, a concept plan was prepared, which made provision for long-term land requirements to accommodate a population of four million. The plan envisaged the development of a ring of new satellite towers around the central water abatement area; it proposes the construction of a mass transit system to connect the population centers with the city center and the main industrial area. Employment was supposed to be well-distributed, with heavy industries in two industrial centers, light industries dispersed within new towns, and commercial employment located within the central area and new town centers. So far, numerous new towns have been developed according to the concept plan, as have been the International Airport and major infrastructural facilities such as, a new power station, two major sewage treatment plants, the expressway, and the mass rail transit system. Thus, the two plans have been complementary to one signed according to the principles of the concept plan, while approvals
for private development are granted in accordance with the regulations of the statutory master plan. The lesson from Hong Kong's and Singapore's experiences is that rigid urban master plans are not adapted to the changing economic conditions of modern cities and that strategic urban planning is a much more efficient approach for urban management.

Land Management

25. Land management and regulations are critical to the economy of the two city-states as their land area is limited and should be optimized. All land in Hong Kong is owned by the Crown which sells or grants leasehold interests. Policy responsibility for land rests with the Secretary for Lands and Works who is also responsible for the management of public works and private building. Its Lands Department coordinates all aspects of land administration. The government's first priority with regard to land supply is to make available sufficient land for the government's development programs, including the public housing program. Land for the Hong Kong Housing Authority's public rental estates is provided free by the Home Ownership Scheme. Land for the rental estates constructed by the Hong Kong Housing Society, a non-profit-making body with aims similar to those of the Housing Authority, is provided on concessionary terms. Most land available for private sector commercial, industrial, or residential development is sold by public auction or tender. When private property needed for carrying out public works projects cannot be acquired by negotiations, compulsory powers is exercised. Different ordinances provide for the payment of compensation based on the value of the affected properties at the date of reversion. Land transaction revenues in FY85-86 represented about US$500 million, or about 10% of total government revenues. The issue, renewal, variation, and termination of government leases are dealt with by the Land Office of the Lands Department. Since 1984, all land documents have been microfilmed and transferred to satellite storage.

26. The Land Office is responsible for the administration of state land in Singapore. Its functions include the allocation of state land to both the public and the private sector for development; the compulsory acquisition of private land for any public purpose; the management and control of state land; and the collection of land revenue. Total revenue collected in 1985 amounted to about US$232 million, or about 5% of total government revenues. Land is under two systems of land registration, with all land progressively being brought under the new system of registration, the Singapore Torrens System under the Land Titles Act. Issuance of land titles, land alienation, inspection and approval of survey plans, recording of titles and maps, and provision of land ownership control are responsibilities of the Survey Department of the Ministry of Law. As in Hong Kong, land for

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3/ The Home Ownership Scheme (HOS) and the Private Sector Participation Scheme (PSPS) provide lower-middle income families (monthly income of up to US$960) with the opportunity to purchase their own apartments at below market prices. The two schemes have built about 10,000 units per year.
public housing and for rental estates constructed by the Housing and Development Board is provided free by the government.

27. Hong Kong and Singapore have managed their limited land in an efficient and equitable way that many LDC's would like to replicate. The two city-states, however, benefit from the fact that land is state property. Such state ownership facilitates the decision making process and the implementation of land management policies. This might not be the case in most LDC's cities where governments are confronted by the issue of large land areas belonging to the private sector and where national land management might be handicapped by the lack of flexibility of the state to acquire the scarcely, available land for public purposes without creating political stress.

Housing

28. Housing continues to be a priority commitment for both governments. Public housing predominates in Singapore, where 84% of the population lives in government-built apartments, with 72% of these being owned by the people. In Hong Kong public housing is less important, though still quite impressive, with 49% of the population living in either rental or occupant-owned public housing. The two governments also have very effective redevelopment programs and have significantly improved squatter areas. In 1985, the governments' allocations to their housing programs absorbed one third of the total public capital expenditures in Hong Kong and represented 47% of total development expenditures in Singapore.

29. All aspects of public licensing are controlled by the Hong Kong Housing Authority (HKHA). Its executive arm is the Housing Department which builds and manages public housing. Shortage of suitable land in urban areas has made it necessary to build most public housing in the New Territories, much of it on reclaimed inlets. Land usage is maximized by building skyscraper blocks of up to 36 floors. In 1985, the HKHA delivered 49,724 new units. Its program is to build more than 200,000 apartments during the next five years, of which 158,000 will be for rental (79%), 32,900 home ownership apartments (16%), and 27,000 for the Private Sector Participation Scheme (14%). The HKHA is responsible for its own finance and management. Capital funding for the public housing program is provided through government funds. The government subsidizes the program by providing free land for rental and home ownership projects and loans from the Development Loan Fund to finance the construction of rental estates. The loans are repayable over 40 years at an annual interest rate of 5%, but the government does not require the interest to be paid in cash. The Home Ownership Scheme (HOS) is administered by the HKHA with funds from the government to provide comfortable and reasonably priced apartments for sale to public housing tenants and to lower-middle income families in the private sector. The HOS is financed by the government which recoups its expenditure from the sale of apartments. The price of HOS apartments vary from the equivalent of US$12,000 for apartments of about 50 square meters to US$52,000 for apartments of about 92 square meters. The HKHA possesses one of the world's largest housing stocks, with 2.3 million tenants living in 557,000 rental apartments in 118 housing estates.
Accommodation is offered to those found eligible in terms of their family income. Rents for domestic premises in public housing estates have been maintained at low levels despite increasing operating and maintenance costs. The median rent is about 5 to 6% of the median tenants' income (an extremely low figure compared to 17% paid by tenants in the private sector). Rents have been kept low because of heavy government subsidies. Land is provided free, and construction of central estates is financed largely by loans from the government on concessionary terms. Commercial centers are provided in all new HKHA estates. The fact that the authority does not subsidize commercial operators keeps rents for commercial premises in line with fair market rents. In 1985, the HKHA managed about 16,000 commercial properties together with 18,000 factory units. There are still squatter areas in Hong Kong, but a 10-year clearance program was launched in 1983 to relocate or improve all squatters during the term of the program. People affected by development clearance or victims of natural disasters are being rehoused in temporary housing areas until they can qualify for permanent public housing.

30. In Hong Kong, privately owned buildings constitute more than half of the territory's housing stock and accommodate about half of the population. The vast majority of these buildings are highrise blocks which are held in multiple ownership by a number of owners, who may or may not be residents of the building. The upkeep/maintenance of some private rental properties has deteriorated to an extent which is most undesirable, greatly as a result of statutory controls on rents and security of tenure. The legislation is complicated and, unless a tenant voluntarily vacates the premises, a landlord cannot recover possession. Increases in rents have been permitted annually in recent years, but in no case is the permitted rent to exceed the prevailing market rent. The government has been taken steps to remove rent control as soon as possible and to provide assistance to private management bodies in order to stimulate a more effective relationship between owners and tenants.

31. In Singapore, the Housing and Development Board (HDB) provides housing for the low- and middle-income groups while the private sector provides for the high-income group. The trend is toward living in condominiums and highrise apartments. Few new major projects were started in 1985 due to an oversupply of private commercial and residential properties. HDB is the sole national public housing authority. The Board is under the portfolio of the Minister for National Development. The Board manages about 552,000 apartments. In 1985, it completed an unprecedented number of 61,257 dwelling units, a 44% increase over the record number of 42,685 dwelling units completed in 1983/84. In view of the demand for public housing, the Board has scheduled to build 160,000 dwelling units, 4,076 units of shops, 3,195 industrial units, and 551 ancillary developments under the sixth Five-Year Building Program (1986-1990). The Board has adopted an integrated and comprehensive approach to public housing, from the acquisition of

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4/ About 30,000 units were completed by the private sector in 1985.
land to the building of apartments and communal facilities and to the daily management of the estates. The Board is also involved in agency projects for the government through land reclamation works and building of community centers. Its development programs continue to be largely financed from government loans. Loans for properties developed for sale are repayable over 10 years with 6% annual interest rate. Loans for properties for rent are repayable over 60 years at 7 3/4% interest per annum. Still, HDB's operates with a deficit.2/ Besides providing land free to HDB, the government fully subsidizes the deficits, either through reclamation work undertaken by the agency itself (1.525 hectares have been reclaimed since 1966) or through compulsory acquisition of private land. (Of the total area acquired during 1985, 44% was for the HDB and amounted to about 277 hectares.) Purchasers of HDB apartments need only to make a 20% downpayment at the time of registration, the balance being repayable over 20 years at an annual rate of 6.25%. Most apartment owners use their Central Provident Fund savings to make the purchase. HDB buyers use less than 30% of their income to purchase their houses. Since their savings under the CPF amount to 50% of their incomes, in principle, all Singaporeans should be able to become owners of their apartments. HDB has recently introduced some concessions for lower income groups (monthly income not exceeding US$400) so that they might purchase their homes. These include reduction of the downpayment to 5%, extension of the loan repayment period to 25 years, and use of the "ballooning repayment scheme." The prices of HDB apartments vary from US$12,000 equivalent for a three-room apartment of about 60 square meters to US$50,000 equivalent for exceptional apartments of five rooms of about 145 square meters. The scale of corresponding monthly incomes varies from US$400 to about US$1,100. Rental housing is provided to families whose monthly income does not exceed US$400 and varies from US$20 per month for a one-room apartment to about 50$ a three-room apartment (8% to 16% of monthly income). During 1985, the acceleration of the resettlement program, under the Resettlement Department of HDB, resulted in the clearance of 22,000 squatters in 352 sites. Affected people are relocated in HDB apartments.

32. The extensive public housing programs of both Hong Kong and Singapore have required large financial input from the government budgets. The provision of free land and non-indexed mortgages; the huge housing stock of public rental housing, and the rent control legislations have created limitations in the housing market. However, the two public housing programs have been successful as most of their respective populations are, at present, conveniently lodged with many people being owners of their apartments. Public intervention was necessary because of limited land and continuous population growth, despite government control over immigration. In addition, public involvement has been rational and has not created any distortions in the economy; the financing of the housing programs have been provided directly from real savings (Singapore), or indirectly from taxes and other governmental revenues (Hong Kong), without increasing inflation as

5/ In 1985, HDB's deficit was about US$15 million, or 3% of revenues for the year.
a result of inadequate monetary policies; the subsidies have been transparent; the housing standards have been maintained within affordable levels; the private sector (industries, commerce, and private developers) have paid the market price for land and construction, and the housing institutions have efficiently managed their programs. The two governments are conscious of the limitations of their housing legislation and markets, and are progressively taking the necessary measures to remove rent control and the weight of compulsory savings on the population and enterprises. However, even with these forthcoming reforms, the experiences of Singapore and Hong Kong might not be easy to replicate, because of the specificity of their land markets, immigration controls, decision making processes, and political stability, which are rather uncommon in the cities of most LDC's.

Urban Services

33. Urban services are provided by a combination of public-owned and private enterprises in Hong Kong; while all services are public in Singapore. However, the two city-states pursue the same policies of efficiency and equity in the provision of water supply, electricity, gas, transports, and communications as they are vital to the continuous growth of their economies.

34. Providing adequate water supplies for Hong Kong and Singapore has always been difficult because the two states have no abundant natural surface or underground water resources. For their additional water supply, they have been dependent therefore, on neighboring countries, and this dependency largely explains why their authorities have kept the supply of water under public control. In Hong Kong, the three main sources of water are rainfall from natural catchment, a supply from China (about 1/4 of the total supply), and a desalination plant as a stand-by source. The insufficiency of natural storage reservoirs led to the construction of two large reservoirs in the sea with a total capacity of about 370 million cubic meters. Total average daily consumption grew to above 1.75 million cubic meters in 1985 (318 liters per capita per day). The delivery system is fully metered with about 1.4 million meters installed. The Water Supply Department of the Secretariat for Lands and Works is responsible to collect, store, purify, and distribute potable water and to construct and maintain water resources. Rates for domestic consumption are relatively low, with 220 gallons per connection per day provided free, the following 220 gallons charged at H.K.$1.11/gallon (US$14¢), and any consumption over 440 gallons at H.K.$2.11/gallon (US$27¢). Industrial consumption is charged a flat rate of H.K.$2.11/gallon.

35. The two main electric companies in Hong Kong (Hong Kong Electric and China Light and Power, Ltd.) are investor-owned and do not operate on a franchise basis. However, the government exercises financial control over the two companies by requiring that any changes in their long-term financing plans and tariffs be approved by the Governor in Council. The total capacity of the two companies in 1985 was 3924 megawatts. China Light's system is interconnected with that of Guandang Power Company of China, and over 2 million units of electricity are exported to the Guandang Province each day. The China Light (CLP)
system also supplies the industrial zone of She Kou in China. In December 1983, the Hong Kong Nuclear Investment Company Limited (HKNIC) was incorporated and, in January 1985, HKNIC signed a joint venture contract with Chinese Guandang Nuclear Investment Company to construct and operate a nuclear power station in the Guandang Province. This nuclear plant will consist of two 980 megawatt reactors, the first one scheduled to enter commercial operation in 1992 and the second in 1993. The United Kingdom Atomic Energy Authority is to provide expert advice and conduct a radiation monitoring program. The two companies have made extensive use of computers for billings, technical applications, and special functions, such as remote supervisory control, load restoration, generation control, and similar operations. The domestic tariff for electricity ranges from HK$72 per KWH for 10 units (minimum consumption) to HK$0.97 per unit for over 5,000 units. The commercial tariff ranges from HK$7.20 per unit for 10 units to HK$0.613 per unit for more than 5,000 units. The tariff structure is therefore skewed towards larger consumers.

36. Gas in Hong Kong is supplied for domestic, commercial, and industrial areas as towngas by the Hong Kong and China Gas Company (HKCG) and in the form of liquefied petroleum gas (LPG) by most of the major oil companies in Hong Kong. Towngas accounts for 51% of total gas sold, and LPG, accounting for 40%-70% of total LPG sold, is distributed through a dealer network in portable 15 kilogram cylinders. In the future all LPG supplied to new housing developments will be in the form of piped gas. All the gas is produced in Hong Kong gas plants. Gas is sold on a unit basis (48 megajoules) at a cost of HK$5.04 (US$0.65) per unit.

37. In Singapore, the responsibility for providing electricity, water, and gas rests with the Public Utilities Board (PUB), a statutory body created in 1963. PUB is managed on a commercial basis. At the end of 1985, the Board employed 7929 persons, and the number of consumer accounts was 728,000, or about 11 employees per 1,000 consumers, a very efficient ratio. PUB financial performance has been fully satisfactory. PUB's total assets were equivalent to US$2.5 billion in 1985, and its net profits of US$134 million for the year represented a 5.3% return on investments. Debt service coverage was 1.92, meeting the condition of the loan agreements with the World Bank and the Asian Development Bank (which stipulate a minimum of 1.5).

38. The Republic's Water Supply System consists of 18 new water reservoirs, 10 service reservoirs, and 8 treatment plants. The Johor River Scheme (Malaysia) was completed in 1967. River water is drawn and treated in Johor and delivered to Singapore through a 1.8 meter diameter pipeline. Extension of treatment facilities at Johor and a new pipeline of 60 kilometers (2.2 meters in diameter) are under construction. Water is supplied to all parts of Singapore and to the major offshore islands through a network of about 4,000 kilometers of pipelines. The water is moderately soft and conforms to the WHO's standards of quality. Total average daily consumption was about 0.839 million cubic meters in 1985 (350 liters per capita per day). The delivery system is fully metered with a total of about 411,000 meters installed. Rates are progressive: for domestic consumption they vary from S$42c (US19c) for
1 to 20 cubic meters consumed per month to S$950 (US$43) for 40 cubic meters and above. Commercial and industrial consumers are charged a flat tariff of Sc110 (US$50) per cubic meter, except for shipping charged at Sc190 (US$86) per cubic meter.

39. Electricity supply in Singapore is generated at three oil-fired power stations and four gas turbines. The total installed capacity is 2,571 megawatts. Electricity is transmitted and distributed to consumers through more than 4,000 substations and a network of more than 39,000 kilometers of cables. The system is closely monitored round-the-clock in the computerized Power System Control Center. A new power station on the island of Pulau Seraya is being constructed to meet future demand: an additional generating capacity of 750 megawatts is scheduled to be available this year. The domestic tariff for electricity ranges from S$17.97/KWH (US$8.17 cents) for consumption up to 2,000 KWH/month to S$22.97¢/KWH (US$10.44 cents) for consumption over 2,000 KWH/month. Commerces and industries are charged at progressive rates from S$17.97 cents/KWH to S$20.00 cents/KWH.

40. Gas in Singapore is manufactured from naptha by six gas making plants and supplied to consumers through 1573 kilometers of gas mains. In 1985, total production of gas amounted to 570 million megajoules. The system is monitored by 23 remote stations. The retail price of gas per unit (3412 BUT=1KWH) is Sc10, and the bulk tariff is Sc9.00 per unit with a minimum consumption of 50,000 units.

41. The two governments have realized that well managed public utilities are able to provide urban services at the least cost, thereby increasing the efficiency of both private and public sectors and making their enterprises more competitive in manufacturing of tradable goods, a vital aspect of their externally oriented economies. These governments have also realized that only autonomous or private public utilities could achieve high rates of productivity and have limited public intervention to the formulation of national policies and regulatory framework. Tariffs and rates have been equitable, although their structure could be improved. With this proviso, the experiences of Hong Kong and Singapore could be fully replicated in other LDC's.

Transport and Communications

42. Both governments have given priority to the development of well-run transport and communications systems that sustain their economic activity by moving people, goods, and information quickly and efficiently. In Hong Kong, the Secretary for Transport is responsible for overall policy formulation of all transport matters, and the Transport Department is in charge of policy execution and regulations (Road Traffic Ordinance). In 1985, there were about 300,000 vehicles in the territory, and the daily average of passenger trips on public transport was 9.2 million. Hong Kong's size and topography limit road network development, and roads tend to be congested, particularly in the urban areas. There are some 1279km of road and the network incorporates four tunnels. Roads are constantly being upgraded and extended to ease congestion or provide access to development areas such as the new towns in the New Territories. A second cross-harbor tunnel is under
construction. It will contain a four lane road and a rail track to be leased to the Mass Transit Railway (MTR) corporation. The recently electrified Kowloon-Canton Railway runs from urban Kowloon to the border at Lo-Wu. Urban road and public transport congestion were alleviated by opening the MTR in October 1979. The MTR consists now of 36 stations over a 38 kilometer route. It carried 463 million passengers in 1985 with train running a two-minute intervals during peak hours. The network is served by 36 feeder bus services and multi-floor carparks are provided at MTR stations to encourage motorists to use the system. The shortage of parking space and the cost (the monthly pass fee is about US$160 equivalent) in urban areas constitute a certain deterrent to private car owners, but motor vehicle licenses are still relatively inexpensive. (from US$320 to US$800 equivalent depending on the vehicle horsepower). The price of gasoline is about twice that of the USA (US$2.32 per gallon). More than 300 bus routes are operated by three private bus companies (about 4 million passengers a day). Rides on buses and trains are relatively cheap, but many vehicles are pretty old. The MTR fares range from US$0.30 to 0.60 equivalent. While fares cover operating costs and some interest charges, about 1/3 of the capital cost (which amounted to about US$3.0 billion equivalent) has been met by direct government subsidies. The service is fast and efficient, but trains can be very crowded and often offer standing room only during peak hours. Taxi fares are relatively expensive, particularly for cross-harbor journeys. A fleet of 4,350 minibuses owned by private operators provide a useful supplement to other services, but a potential rider must be familiar with the local road network before he can make use of them. A large network of harbor ferries connects Hong Kong Island to Kowloon, part of the new territories, and the numerous islands. Despite all these transport facilities, traffic congestion continues to impede the movement of the population and goods. The government believes that high taxes on car ownership, although effective in containing congestion, are not the most equitable means of traffic restraint and that it is desirable to tackle the problem directly by reducing vehicle usage. One method under consideration is the Electronic Road Pricing (ERP) System, which levies a charge for the use of busy roads at peak periods. In 1983, the government approved a pilot stage of ERP which was completed in June 1985 (2,600 vehicles fitted with electronic number plates were recorded accurately as they crossed over electro-magnetic loops installed beneath the road surface). The conclusion was that the congestion problem could be solved by ERP or by further increases in annual license fees, but ERP would permit higher levels of car ownership, be more selective in its impact on car usage, and in general, be more economically beneficial in travel time and cost terms. Unfortunately, the proposal came at a time when other measures to contain traffic were showing positive results, and additional vehicle taxation was deemed unnecessary. As a result, the District Boards delayed implementation of the ERP.

43. Hong Kong's national harbor has been a prime factor in its development and is one of the world's major ports. In 1984, some 11,900 ocean-going vessels and 72,000 river-trade vessels loaded and discharged more than 47 million tons of cargo. The port is also one of the top three container ports in the world in terms of containers handled per hectare. Hong Kong occupies a prominent position for shipowning and
management activities. Hong Kong shipowners control about 10% of the world dead weight tonnage, although most vessels are registered at places other than Hong Kong. Hong Kong's airport is similarly important. During 1984, 8.3 million passengers passed through the airport and its cargo terminal handled 420,000 tons of cargo. Major extensions of the airport are underway.

44. Telecommunication services in Hong Kong are provided by two franchised local companies, the Hong Kong Telephone Company Limited and the Cable and Wireless (H-K) Limited. The Postmaster General is the telecommunications authority. He administers the Telecommunication Ordinance and the Telephone Ordinance and advises the government on matters concerning public telecommunications and technical aspects of radio and television broadcasting. (There are two franchised commercial broadcasting stations in Hong Kong: the Television Broadcasts Limited and the Asia Television Limited). Internal telephone service is provided by the Hong Kong Telephone Company Limited. With over 2.2 million telephones served by more than 1.7 million lines, the territory has a density at around 41 telephones per 100 people. The television stations are licensed to operate under the provisions of the Television Ordinance which is administered by the Televison Authority. Radio Television Hong Kong (RTHK) uses the transmission services of the two commercial stations for broadcasting of public affairs programs. There are 10 radio channels. Five are operated by RTHK: three by Hong Kong Broadcasting Company (Commercial Radio, [CR]), and two by the British Forces Broadcasting Service -- RTHK is publicly financed. The press consists of 66 newspapers and more than 520 periodicals -- most international news agencies have offices in Hong Kong.

45. Having established itself as a communications center, Singapore has not spared any effort in improving its transportation and communication infrastructure. The Public Works Department (PWD) of the National Ministry of Development is responsible for the planning, design, construction, and maintenance of public buildings, airports, roads, flyovers, and expressways and the control of development and building projects in the private sector. It is the government consultant for civil engineering that provides quality assurance and material testing services for the Rapid Mass Transit Corporation (RMTC). It also administers the public street lighting program.

46. In 1985, Singapore had 73 kilometers of expressway and a total of 2,569 kilometers of public roads. By the end of the year, the total number of motor vehicles was 490,000 of which 217,100 were private cars. Construction of the massive S$5 billion MRT system (US$2.3 billion) began in 1983. It is expected to be extended to 66 kilometers, to have 41 stations (25 elevated, 15 underground, and 1 at ground level), to carry more than 860,000 passengers daily, and to have trains running at intervals of three to four minutes. The first phase is scheduled for completion in early 1988. Some 40% of business and industrial areas are located near the proposed MRT stations, while 30% of Singaporeans will live within walking distance of a station.

47. Two private companies operate scheduled full-day bus service in Singapore; the Singapore Bus Service (SBS) and the Trans-Island Bus
Services (TIBS). SBS has a fleet of 2,633 buses and operates 231 routes. TIBS operates along 18 routes and has a fleet of 265 buses, mostly one-man operated. Singapore’s taxi service is provided by five groups of private operators who numbered 37,000 by the end of 1985. To curb excessive demand, taxi fares were recently raised to about S.$3.0 (US$1.03 equivalent) for a typical 6 kilometer journey. New motor vehicles in Singapore are subject to a first registration tax (Additional Registration Fee or ARE) of 175% ad valorem, plus import duties of 45% ad valorem. All motor vehicles are subject to an annual road tax, which for private cars range from S.$600 (US$270 equivalent) for a 1,000 cubic centimeters engine to S.$3,150 (US$1,430 equivalent) for a 3,000 cubic centimeters vehicle. Road tax rates for company-registered cars are double those for private vehicles, and the levy on diesel cars is six times higher than that for those using petrol. The price of premier grade gasoline is currently at S$1.0 per liter (US$1.70 per gallon).

48. The Area Licensing Scheme (ALS) is Singapore’s unique system for controlling congestion in the center of the city. The ALS was introduced in June 1975. Passenger cars carrying less than four persons must display an area license when entering a center-city area designated as the restricted zone, between 7:30 A.M. and 10:15 A.M., except Sundays and public holidays. Exemptions are ambulances, fire engines, police vehicles, military vehicles, motorcycles, omnibuses and minibuses, with a seating capacity of 12 or more. The license fees are S$40 (US$20) a month for a taxi, S$200 (US$91) monthly for a company-registered car, and S$100 (US$46) a month for a private car.

49. The Port of Singapore is at least as important as the Port of Rotterdam in terms of shipping tonnage. Ships totalling 528 gross registered tons entered or left the Port in 1984. The Port is also a major distribution and warehousing center and an important transshipment harbor. In 1985, there were about 60,500 vessel arrivals and departures. Total tonnage handled at the wharves and oil terminals was 106 million. The port is administered by the Port of Singapore Information. The PSA operates five port terminals. Containerized cargo, which accounts for about 65% of the general cargo in 1985, was the only growing activity in that year. Singapore’s merchant fleet ranks sixteenth among the principal merchant fleets of the world with 1,406 vessels totalling 6.62 million gross registered tons, of which 105 were oil tankers. Despite the general economic slowdown in 1985, the amount of air traffic at Singapore Changi Airport still grew. There were 9.8 million air passengers and almost 300,000 tons of air freight handled. Phased II development of the airport is in progress, and with its completion in 1989, the airport will be able to process 20 million air passengers a year.

50. The Telecommunication Authority of Singapore (Telecoms), a statutory board, provides domestic and international telecommunication and postal services in the country. Telecoms stays up-to-date by installing the latest technology, and its currentness has allowed its charges to be maintained at competitive levels. Singapore’s telecommunication infrastructure comprises a network of satellite earth stations, submarine cables, microwave links, and radio circuits which
provide direct links to most countries of the world. At the end of 1985, there were 1,073,982 telephones installed, or 42 telephones per 100 population. This was further supplemented by an island-wide network of 21,000 public telephones.

51. Access to newspapers, magazines, and radio and television programs from all parts of the world makes the average Singaporean a well-informed person. There were seven daily newspapers at the end of 1985, with a total circulation of 715,000 copies during the year. Ninety-three correspondents based in Singapore represented 63 foreign agencies, news magazines, newspapers, and broadcasting stations. The Singapore Broadcasting Corporation (SBC) is responsible for operating Singapore's radio and television services. Radio and TV programs are produced and telecast in the four official languages (English, Chinese, Malay, and Tamil). SBC operates five radio channels and three TV channels.

52. The priority given by both governments to their transport and communication facilities have been, once again, motivated by their policies to provide efficient urban services. Moving people and goods in the most rational ways and building the respective city-states' telecommunications and information networks are essential ingredients of their economic success. The huge public investments made by both city-states in their mass transportation systems might appear unreasonable. Although both governments have been confronted with almost impossible traffic congestion problems, these transit systems have been complementary to other innovative measures geared at controlling the ownership and transit of vehicles, measures which have proven to be successful, even though insufficient. In that sense, the experiences of Hong Kong and Singapore appear to be replicable in other LDC's.
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## Annex II

### List of Officials Visited

#### Hong Kong

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Details</th>
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<tbody>
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<td>Secretary for Land &amp; Works Land &amp; Works Branch Murray Building, 20th Floor Garden Road Hong Kong T0 5-26702101</td>
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<td>Mr. Haider Barma</td>
<td>Deputy Secretary (Appointment) Civil Service Branch Government Secretariat Lower Albert Road Main Wing Hong Kong T0 5-95358</td>
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<tr>
<td>Mr. Kwan Wing-wah, Leo</td>
<td>District Officer, Shatin Shatin District Office KCR House, Sixth Floor Shatin New Territories T0 0-6065422</td>
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<tr>
<td>Mr. A. N. Savage, JP</td>
<td>Principal Assistant Financial Secretary Finance Branch Government Secretariat Lower Albert Road Hong Kong T0 595492</td>
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#### Singapore

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<th>Name</th>
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<tr>
<td>Mr. Jaspal Singh</td>
<td>Deputy Director Revenue Division Ministry of Finance</td>
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<td>Mr. Au Eng Kok</td>
<td>General Manager Urban Redevelopment Authority</td>
</tr>
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<td>Ms. Tan Guat Eng</td>
<td>Revenue Officer Revenue Division Ministry of Finance</td>
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<td>Ms. Lim Soo Hoon</td>
<td>Deputy Director Land Transport Division Ministry of Communication &amp; Information</td>
</tr>
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</table>
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*Mr. Ong Ho Sim
Director
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*Mr. Wee Kian Kow
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*Mr. Khor Teir Hean
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