ECONOMIC DEVELOPMENT AND HOUSING MARKETS

IN HONG KONG AND SINGAPORE

UN-HABITAT
FOR A BETTER URBAN FUTURE

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FOREWORD

Urbanization is one of the most powerful, irreversible forces in the world. It is estimated that 93 percent of the future urban population growth will occur in the cities of Asia and Africa, and to a lesser extent, Latin America and the Caribbean.

We live in a new urban era with most of humanity now living in towns and cities. Global poverty is moving into cities, mostly in developing countries, in a process we call the *urbanisation of poverty.*

The world's slums are growing and growing as are the global urban populations. Indeed, this is one of the greatest challenges we face in the new millennium.

The persistent problems of poverty and slums are in large part due to weak urban economies. Urban economic development is fundamental to UN-HABITAT's mandate. Cities act as engines of national economic development. Strong urban economies are essential for poverty reduction and the provision of adequate housing, infrastructure, education, health, safety, and basic services.

The *Global Urban Economic Dialogue* series presented here is a platform for all sectors of the society to address urban economic development and particularly its contribution to addressing housing issues. This work carries many new ideas, solutions and innovative best practices from some of the world's leading urban thinkers and practitioners from international organisations, national governments, local authorities, the private sector, and civil society.

This series also gives us an interesting insight and deeper understanding of the wide range of urban economic development and human settlements development issues. It will serve UN member States well in their quest for better policies and strategies to address increasing global challenges in these areas

Joan Clos
Under-Secretary-General, United Nations,
Executive Director, UN-HABITAT

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PART I
INTRODUCTION

CHAPTER 1: INTRODUCTION

Extensive research on housing markets and prices has been conducted around the world but most of these studies focus on a particular housing market. In contrast, comparative housing research are fewer and far in between. In addition, the comparative studies that are carried out tend to be based on developed housing markets in Western countries.

Comparative housing research has been recognized as a means to understand the nature and dynamics of housing systems. The broad patterns of social and economic changes, government policies and institutional structuring could be differentiated through juxtaposing of developments in countries with similar backgrounds. In addition, comparative research also helps to identify the significant factors driving the changes and differences in housing markets. Moreover, policy ideas could be gleaned from such international comparative perspectives (Ball, *et al.,* 1988; Doling, 1997). However, as housing markets tend to differ across countries, cross-national comparisons could suffer from confounding effects of cultural and attitudinal disparity. Hence, the choice of countries for comparison should ensure that there are no large variations that could render the comparison meaningless, and yet remain sufficiently distinctive to feature policy and preference differences.

This research project aims to examine economic development and housing markets in Hong Kong and Singapore. These two cities have been selected for international comparison as the housing provisions in both cities are often regarded as successful models. The two cities have the largest public housing programs in the capitalist world, in terms of the proportion of population directly housed by the government. As Hong Kong and Singapore have attracted worldwide interests among researchers and policy makers, many studies have already been carried out on outlining their respective housing policies (for example, Yu, 1997; La Grange, 1999). Therefore, a comparative discussion of these two countries would provide additional insight into the similarities and differences of their housing systems.

Furthermore, Hong Kong and Singapore are very suitable for comparative research as they bear many similarities. First, they are both cities facing a severe scarcity of land, and as a result of which, high-rise high-density developments are the norm in their landscapes. The scarce land resources have caused both their market economies and housing markets to be greatly intervened in by the government. Even though the Singapore government is well known for its economic intervention while the Hong Kong government is recognized for its laissez-faire approach, there is substantial government involvement in both housing markets, in the form of housing subsidies and market regulations. However, the mechanisms and stringency of government intervention differ between the two countries, providing interesting cross-national variations.

Besides affecting social and physical development as well as access to other material and social resources (Dickens, *et. al.*, 1985), the housing market also has powerful spillover effects on a country's economy as it has wide-ranging implications for economic efficiency, competitiveness and stability. As such, there is an increasing consensus on the importance of research into the relationship between housing and the economy.

- In view of the above rationale for the study, the main objectives of the research project are as follows:
- To provide a qualitative discussion on the relationship between housing markets and economic performance;
- To examine the housing systems in Hong Kong and Singapore;
- To study how the government intervenes in housing markets and the impacts of government intervention on the housing markets in Hong Kong and Singapore;
- To present a comparative discussion of the housing markets in Hong Kong and Singapore.

The research report is organized in the following way. Part one is the introduction and literature review. Part two discusses the housing systems in Hong Kong and Singapore as well as the impacts of government intervention on the respective housing markets. Part three provides an overview of economic development in Singapore together with a qualitative discussion on the relationship between economic development and housing markets. Part four is a comparative discussion of the housing markets in Hong Kong and Singapore. Finally, part 5 concludes the research report by highlighting the salient findings.

The format of the literature review is structured according to the three major research areas of the research project, namely, government intervention in housing markets, economic development and housing markets as well as dynamics of housing markets. As the research project basically examines the issues from a qualitative perspective, the focus of this literature review is on qualitative studies rather than quantitative works.

Government Intervention in Housing Markets

In a perfectly competitive economy, the supply of goods and services of the economy and the set of prices are determined by the price mechanism in accordance with consumers' preferences and incomes. However, in reality, markets often operate under circumstances that do not confine to the assumptions of perfect competitive markets. Left to the market alone, the market system is unlikely to be efficient (Brown and Jackson, 1996). Given the presence of market failure, governments in most countries have perceived the need to intervene in markets and thus correct the market failure or introduce policies or measures to compensate its effects (Dunkerley, 1983; Brown and Jackson, 1996).

Brown and Jackson (1996) identify four possible roles that the government could play to intervene in markets. First, the government could adopt an allocative role, that is, to intervene in the allocative function of the market to achieve efficiency. As the market distribution may fail to achieve equity, the government could also assume a distributive role to ensure that the distribution of outcomes is in line with equity principles. In highly volatile markets, the government may take on a stabilization role, using specific policies or measures to stabilize the market. Finally, the government may play a regulatory role so as to maintain the proper functioning of the market.

Regulations appear to be the norm rather than the exception according to Averch's (1990) research on housing markets in Western Europe and the United States. Until the 1950's, there were only limited regulations to preserve market frameworks and to ensure minimum housing standards. This is before the 1950's; any changes in market prices of housing were perceived to be in response to demand and supply. Due to the high scarcity of land supply as well as massive inflow of population, market prices of housing had remained very high. This phenomenon was however not regarded as market failure and could not be considered as grounds for government intervention. It was only after World War II that many market economies began to expand the role of the government in the housing sector, and as a result, the government became more pro-interventionist in its approach. Upon returning from World War II, many soldiers demanded that the government had more control over the market system to ensure the interests of these returning war heroes. Throughout the western countries, the preferred means of government intervention differ from country to country depending on history and experiences. Countries in Western Europe usually implement state provision of housing, whereas in the United States, rent control and fair rate of return regulations are generally favored (Averch, 1990).

With regards to the impacts of government intervention on the housing market, Castells, *et al.* (1990) reveal a positive interaction between the role of the state in housing and urban development, and the processes of introduction and capital accumulation in the housing programs in Hong Kong and Singapore. Castells, *et al.* (1990) therefore conclude that housing has decisively contributed to economic growth by lowering housing and labor costs.

Singapore has been used as a case study in many researches that examine the linkages between government policies and the housing market. This is mainly due to two factors. First, there is a huge proportion of the population who are public homeowners, estimated at 83% as at 31 March 2002 (Housing and Development Board, 2002). In addition to the direct government intervention in the public housing market, public housing policies also have indirect impacts on the private housing market, due to the existence of a relationship between the private housing and resale of public housing markets since many of the private housing purchasers are previously public homeowners.

Economic Development and Housing Markets

In addition to the linkages between government policies and the housing market, many studies have been carried out to investigate the relationship between housing prices and general economic conditions. One of the earliest works in this area shows how the long swings in construction and price development synchronize with the long swings in aggregate economic activity (Gottlieb, 1976). In more recent years, sophisticated models and modern formulation of market dynamics assume that households and firms have rational and adaptive expectations about the future whereby their forecast into the future is based on current market conditions, and in response to unanticipated shocks in the housing or property market, they are expected to be able to predict the market response correctly and are able to act upon that knowledge. These models are able to generate the patterns of price change over time in response to varying conditions in economic fundamentals and in economic shocks (DiPasquale and Wheaton, 1994; Case and Shiller, 1988).

Besides establishing the broad relationship between the economy and the housing market, some researches have specifically found that the private housing price fluctuations reinforce or generate fluctuations in their macro-economies through booms and slumps, particularly through consumer spending. For instance, Quigley (1999) highlights the linkages between economic 'fundamentals' and property prices, and finds that economic conditions, as measured by changes in employment, income, number of households and the construction permits, are important determinants of housing prices. Quigley (1999) reveals that 'bubbles' in Asian property markets have real consequences for national and regional economies during the late 1990's.

Wang (2001) discusses the relationship between property and the economy in both short and long run, and shows that property is an integrated part of the economy where its performance is closely related to and explainable by some of the economic activities. The relationship of property with other sectors in the economy reflects that they are basically driven by the same set of fundamentals, and consequently, they may not move far apart in the short term. The property sector is however more closely related with the real sectors of the economy, including housing, than with the financial sector. Among the real sectors, construction has the strongest relationship with property in the long run, especially with regards to the stock of uncompleted new construction.

Housing Markets

In terms of the housing market, many researchers have explored it from the perspectives of demand and supply. The many determinants of housing demand and prices include net household formation, level of income and real income growth rate, availability of housing substitutes, price of housing relative to the price of other goods, economic growth rate, expectation and level of confidence, unemployment rate, stock price index, real after-tax interest rate, lagged real appreciation, inflation rate, supply of housing, construction cost as well as the difference between actual and equilibrium real house price levels[1].

More specifically, Abraham and Hendershott (1994) have divided the determinants of real house price into two categories: one that explains the variations in the equilibrium price and the other that accounts for the changing deviations from the equilibrium price. The variables for the former group consist of growth in real income, real construction cost as well as changes in real after-tax interest rate. The latter group includes lagged real appreciation as well as differences between the actual and equilibrium real house price levels. Either group of variables could explain a little over two-fifths of the variation in real house price movements in 30 cities in the United States over the period 1992 to 1997 but together, the two categories are able to explain three-fifths of the house price variations (Abraham and Hendershott, 1994).

With regards to national and regional demarcations, Munro and Tu (1996) examine the dynamics of national and regional house prices in the UK and find that household income, real mortgage rate and housing completions are significant factors influencing house prices at the national level. While studying the underlying structure of the UK national market, Munro and Tu (1996) discovered that the price trends in some regions of UK were strongly related while other regions remained relatively independent. In another study of regional housing prices by Dolde and Tirtiroglu (2002), significant associations have been highlighted between price volatility and

1 See Whitehead, 1974; Waxman, 1989; Capozza and Helsey, 1989 and 1990; Holmans, 1990; Green and Hendershott, 1993; Clapp and Giaccotto, 1994; DisPasquale and Wheaton, 1996; Waxman and Lenard, 1997; Chen and Patel, 1998 economic conditions, especially in relation to national and regional income growth, inflation and interest rates.

In addition to the above commonly discussed price determinants, Meen (1996) further explores the role of user cost of capital. Meen (1996) suggests that user cost has implications beyond the housing market, generating significant impacts on the aggregate demand and supply in the wider economy.

Drake (1993) applies the Johansen co-integration technique to derive a long-term equilibrium relationship for the determination of UK's national house prices, and subsequently utilizes this to develop a short-run dynamic model of house prices in UK. In the short term, private housing starts and the lagged influence of house prices are the main forces driving short-term fluctuations in house prices within the UK. Drake (1993) also reveals that UK's house prices react relatively slowly to changes in these explanatory variables.

The supply of new dwellings, on the other hand, is likely to be influenced by changes in real construction costs, house prices and interest rates (Whitehead, 1974; Waxman, 1989; Capozza and Helsey, 1989 and 1990; Holmans, 1990; Chen and Patel, 1998). While the supply of housing is essentially demand-determined, it is also affected by government taxation policies, returns from residential property, availability of mortgage financing, foreign investment guidelines, existing housing stock, expectations as well as alternative investment opportunities (Waxman, 1989). In the short run, however, housing supply may not be able to respond effectively to price and cost changes as evidenced by Buckley and Ermish (1983).

Another major influence on the housing market is that of government intervention, activity and influence (Anas and Choo, 1988; Waxman, 1989). In the research by Anas and Choo (1988) on the Swedish mixed housing market, regulated sub-markets with rational dwellings and queues are explicitly incorporated in their study to investigate the effects of institutional regulation on the housing market. It is found that the complexity of Swedish institutional schemes and policy instruments creates a number of counterintuitive, unintended and possibly undesirable effects in the housing market.

In our study we tend to adopt a more qualitative approach, housing and economic policy development, their implications and impact on the housing markets in Hong Kong and Singapore are examined in a series of qualitative discussions.

PART II: HOUSING SYSTEMS AND IMPACTS OF GOVERNMENT INTERVENTION ON HOUSING MARKETS IN HONG KONG AND SINGAPORE

CHAPTER 2: HOUSING SYSTEM AND IMPACTS OF GOVERNMENT INTERVENTIONS ON HOUSING MARKETS IN SINGAPORE

The Housing System in Singapore

In Singapore, home ownership is well segmented into private homeowners and public homeowners. The public home ownership sector is the dominating sector accommodating 85% of total households (Housing and Development Board, 2002).

The government's involvement in the housing of Singaporeans began with the formation of Singapore Improvement Trust (SIT) in 1924 "to provide for the improvement of the Town and Island of Singapore" (Yeh, 1975). SIT was established as a result of the proposals made by the Housing Commission in 1918, which was set up by the then Colonial Government to report on the housing situation. The ad hoc efforts of the SIT to provide housing were ineffective against the massive post-war baby boom and high immigration rate. According to the 1948 Report of the Housing Committee, 72% of the population was housed within the central area of Singapore with densities of about 1,000 persons per acre (Singapore Housing Committee, 1948).

By the time the People's Action Party (PAP), that is the present government, came to power in 1959, the housing shortage problem had reached epidemic proportions. According to Wong and Yeh (1985), in the 1950's, Singapore "had one of South-east Asia's largest urban slum and squatter populations". The island was replete with squatters and slums, which were death traps and breeding grounds for disease, crime and fire hazards (Singapore Housing Committee, 1948; Yeh, 1975). The housing condition of the country was characterized by overcrowding, dilapidation and inadequate infrastructure. Based on estimates at that time, a quarter of a million people lived in badly degenerated slums while another one-third of a million lived in squatter settlements. The slum residents constituted 37% of the then population of 1.58 million. Although the severity of the housing shortage warranted the construction of 150,000 new housing units over the decade from 1961 to 1970, the private sector was able to provide only 40,000 dwellings.

In response to the urgent and appalling housing situation, the Singapore government assumed the responsibility to "provide decent homes equipped with modern amenities for all those who needed them" (Yeh, 1975). Consequently, the government established the Housing and Development Board (HDB) on 1 February 1960 with the responsibility for inter alia, the provision of low cost public housing and related facilities for sale or rent to target households. HDB undertakes duties from housing production, housing management, and housing finance to formulation of housing policies. Over the past 44 years, the public housing sector has been heavily subsidized by the State, in terms of construction, financing and land costs.

During the past four decades, along with Singapore's rapid economic expansion, major structural changes are evident in the country's demography strata as well as economic framework. The nature, provision and financing of housing are therefore products of such socio-economic development. For instance, the housing tenure structure has undergone drastic structural changes since 1970, see Table 1. Public homeownership has become a major sector while the private rental sector, which used to be the dominating sector, has become very diminutive in the current tenure structure.

The public housing sector in Singapore is managed by a statutory board known as the HDB, that was established in 1960 by the government especially for this purpose. The HDB is the sole authority to control and implement public housing production and management initiatives, subsidies and financing measures as well as specific programs and policies.

The public homeownership sector is divided into three sub-markets, namely, the new public housing market, the resale public housing market, and the Executive Condominium market. In the new public housing market, the dwellings are newly constructed by the HDB and are sold at a highly subsidized price. This market is however characterized by stringent entry regulations, limited supply of dwelling types and locations, and under certain circumstances there is also a waiting period, hence making it accessible and attractive to only a specific segment of the population. Since 2002, the allocation of new public housing is based on two main allocation systems: the Build to Order (BTO) Scheme and the Walk-in Selection (WIS) Scheme. The BTO Scheme, which is a responsive allocation system that offers flexibility in terms of location and timing, allows public housing applicants to apply for dwellings from specific sites launched in suburban zones. The sites launched under the BTO Scheme offer 4-room and 5-room public housing apartments for sale. The construction will only begin when majority of the public housing in a specific site have been booked. The WIS Scheme, on the other hand, is a more convenient and faster allocation system that enables households, particularly those in urgent need of accommodation,

TABLE 1: **Tenure Changes in the Singapore Housing System (1970-2000)**

	1970		1980		1990		2000
Tenure	Own	Rent	Own	Rent	Own	Rent	Own and Rent[1]
Singaporean households living in public housing	7.0%	26.0%	39.4%	26.6%	77.0%	9.0%	87.6%
Singaporean households living in private housing	22.4%	38.6%	15.6%	13.0%	10.5%	2.9%	11.1%
Singaporean households living in other dwellings	6.0%		5.4%		0.6%		1.3%
Total	100.0%		100.0%		100.0%		100.0%

Note: 1.Out of all Singaporean households in 2000, tenants constitute 6.6%. Most of the tenants are in the lowest income group, renting one-room or two-room public housing. Few Singaporean households rent dwellings in the private housing market.
Sources: Department of Statistics (1970, 1980, 1990 and 2000), Singapore.

to purchase their new public housing "on the spot", and move into their new homes within three months. With the expansion of the public housing program over the years, the stringent eligibility criteria which include citizenship status, minimum household size, non-ownership of other residential property as well as household income ceiling have gradually been relaxed.

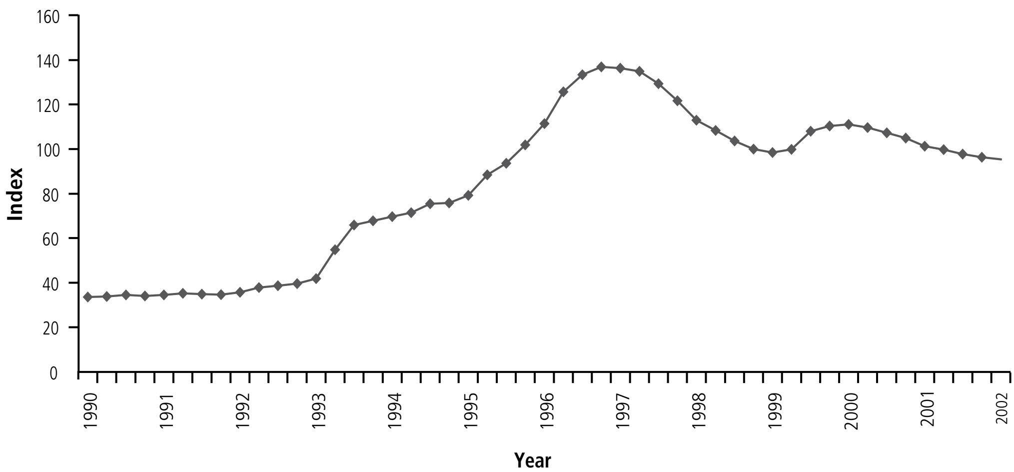
Established in 1971, the resale public housing market is a secondary market where the prices of the resale dwellings are determined by market forces. With the liberalization of the resale public housing policies over the years, the transaction volume and prices of resale public housing have gradually increased. As at 2002, the volume of resale public housing transactions, and the resale price index were 38,828 and 95.4 respectively with the fourth quarter 1998 resale price as the base (Housing and Development Board, 2002), see Figure 1. The average age of resale public housing transacted is 14 years and the average period of transaction takes approximately three months (Ong and Koh, 2000).

While the new and resale public housing markets target the low and middle-income households, the Executive Condominium market aims to provide high quality condominium housing for the upper and middle-income households. The Executive Condominium market is basically driven by market forces but as its prices are subsidized to a small extent, there are a few restrictions regarding its resale. Compared to the new and resale public housing markets, the Executive Condominium market, which was only established in 1996, is still a relatively new and small market.

Although the dwellings within the three sub-markets are constructed similarly in high-rise high-density developments with 99 years leases, the new and resale public housing are differentiated from each other by the locations, dwelling sizes, ages and designs, and also from the Executive Condominiums in terms of the locations, dwelling sizes, ages and designs as well as facilities and amenities.

As HDB has the sole authority and responsibility to provide subsidized public housing, it is financed through two main types of loans, namely, housing development

FIGURE 1: **Resale Public Housing Price Index in Singapore (1990-2002)**



Sources: Housing and Development Board (1990-2002), Singapore.

loans and mortgage financing loans. The housing development loans are basically to finance the public housing construction and development programs and operations that are carried out by the HDB. On the other hand, the mortgage financing loans are loans given to the HDB by the government so that it could provide mortgage-financing facilities to purchasers of public housing at a subsidized interest rate. The amounts of outstanding housing development loans and mortgage financing loans as at 31 March 2003 are S$9.99 billion and S$64.23 billion respectively (Housing and Development Board, 2003). In addition to these loans, the HDB is also given government grants annually to cover its annual budget deficit arising from the construction, development and improvement of subsidized public housing as well as rental and sales of public housing and related properties. Since its inception in 1960, the HDB has received a total of S$12,259 million in government grants (Housing and Development Board, 2003). These government grants have been necessary to ensure the affordability of public housing to all eligible households. Despite the continuing argument between the laissez-faire and interventionism systems on housing over the years (Hall and Jacques, 1983; Coleman, 1985; Hillier, 1986; Lipman and Harris, 1987; Ball *et al.*, 1988; Teymur *et al.*, 1988), interventionism in this case has succeeded remarkably in providing decent and affordable housing for all households with a current household income of less than S$8,000.

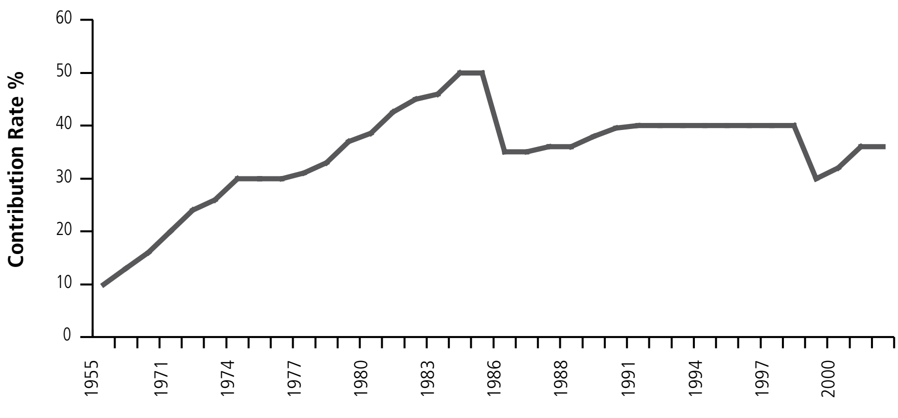
The housing development loans have a repayment term of 20 years, and are pegged at a floating interest rate of 2% above the Central Provident Fund (CPF) savings interest rate, which is lower than the commercial banks' lending rate. Using the housing development loans, the HDB is able to finance the construction of new public housing units, which are either sold or rented to eligible households. The revenue generated from the sale of new public housing are utilized for the interest payments of the housing development loans as well as the operating costs incurred during the sale or rental process. As the land costs are highly subsidized by HDB and the latter also controls the dwelling designs and construction materials, HDB is able to keep the building costs of new public housing significantly lower than that of private housing. As such, HDB is able to provide new public housing at a price that is much lower than the market price. The subsidy in the price of new public housing essentially consists of four components. Two components clearly reflect the Singapore government's commitment to housing, that is, the subsidized interest rate for the housing development loans as well as the subsidy in the land prices. The other two components are not as obvious. One is the potential profit that is equal to the difference between the selling price of a new public housing unit and the market price for the same dwelling. The other is the government grant, which is utilized to cover HDB's annual budget deficit arising from sale, rental and other operations.

There are two types of mortgage financing loans in the public housing market: the mortgage loans provided by HDB and those provided by commercial banks. The mortgage loans provided by HDB are targeted at public homebuyers who qualify for subsidized mortgage loan interest rates. These loans are repayable by the HDB to the government over 20 years at the prevailing CPF savings interest rate. The HDB uses these loans to provide mortgage loans to public homebuyers and charges them at 0.1% above the prevailing CPF savings interest rate, repayable to the HDB over 20 years (Housing and Development Board, 2001). The extra 0.1% is for interest payments on the mortgage financing loans as well as to cover operating costs. Under normal circumstances, public housing purchasers can obtain a maximum mortgage loan amount of up to 80% of the selling price. On the other hand, the mortgage loans provided by the commercial banks are aimed at private housing homebuyers, and public homebuyers who do not qualify for subsidized mortgage interest rates. There are two types of mortgage instruments currently offered by commercial banks: fixed mortgage interest rates and variable mortgage interest rates. For fixed mortgage interest rates, the rates are fixed for a certain period of time, normally up to five years, and are lower than the prime lending rates. Variable mortgage instruments have prime lending rates, which are determined by market forces.

In addition to the housing development loans and mortgage financing loans, the Singapore government has also granted other purpose-specified loans to the HDB, for example, the upgrading loans which are for the improvement of existing public housing estates.

An important component of the public housing finance system is the CPF, which is Singapore's equivalent of a social security system that provides pension, housing and medical schemes among others. The CPF is a compulsory saving scheme whereby both the employee and the employer have to contribute a certain percentage of the employee's monthly salary toward the fund, see Figure 2. Both the CPF contributions and the interest income earned on the CPF savings have been exempted from income tax since 1983. As the CPF itself is not an active fund manager, the CPF savings interest rate is based on the average of one year fixed deposit and the month-end savings rate of four major Singapore banks. CPF members are therefore encouraged to invest their CPF savings in property, approved unit trusts and shares or gold. In recent years, CPF has developed into an extremely dynamic saving and consumption institution in which rules governing the use of CPF savings have been gradually liberalized to allow withdrawals for education and health expenses as well as insurance and personal investments in various financial assets (Phang, 1992; Low and Aw, 1997). Since 1968, public homeowners are allowed to withdraw their CPF savings and monthly contributions to pay for their mortgage loan instalments (see Table 2). From 1993 to 1997, the CPF annual contributions have been a steady proportion of the GDP while the CPF annual withdrawals for public housing purchase have gradually increased to form a major portion of the total withdrawals

FIGURE 2: **Combined Central Provident Fund Contribution Rates in Singapore (1955-2002)**



Sources: Central Provident Fund Board (1955-2002), Singapore.

(Central Provident Fund Board, 1993 to 1997; Department of Statistics, 1993 to 1997).

The private owner-occupier housing market, on the other hand, accommodates less than 10% of the total number of households. However, it is expected that the proportion of private housing households will increase in the future. This is indicated by the rising private housing stock, which increased from 14% in 1989 to 18.1% in 1999. This trend reflects the Government's long-run planning embodied in the 1991 Concept Plan that aims at increasing the private housing stock to 30%.

The submarkets of the private housing market include apartments, condominiums, detached, semi-detached and terrace houses with prices governed by market forces, see Figure 3 for the structure of the Singapore housing system. The supply side of the private housing market is an oligopoly as the high capital values make it nearly impossible for small players to enter the market. Most of the private housing developers have a good track record with tremendous holding power and resources at their disposal.

As the government owns three-quarters of the land resources, there is both direct and indirect government intervention in the private housing market. Since housing is deemed a social good and is often used as a policy tool to achieve social-economic objectives, the Singapore government has also actively intervened in the private housing market. For example, policies on resale public housing, CPF, housing finance terms and conditions, and the release of state land for development are several ways through which the government affects prices in the private housing sector (Phang and Wong, 1997). State lands are made available to the private sector through auction and tender by the Urban Redevelopment Authority (URA) Sale of Sites (SOS) program. Figure 4 shows the overall pyramid structure of the housing market in Singapore. Government policies and intervention in the public housing sector could filter upwards and affect the private housing sector.

The two public housing sub-markets are interlinked as resale public housing prices are often taken into account in pricing the new public housing units, although this effect is moderated by the affordability consideration. Conversely, variations in new public housing

TABLE 2: **Central Provident Fund Annual Contributions and Withdrawals in Singapore (1993-1997)**

Year	CPF annual contributions (S$million)	CPF annual contribution as a percentage of GDP	CPF annual withdrawals[1] (S$million)	CPF annual withdrawals for public housing as a percentage of the total CPF annual withdrawals
1993	10,427.0	11.1%	10,943.9	26.2%
1994	11,278.6	10.4%	7,292.0	49.3%
1995	13,536.1	11.2%	7,252.7	61.7%
1996	14,623.0	11.2%	10,529.6	49.9%
1997	15,873.8	11.1%	11,456.5	51.8%

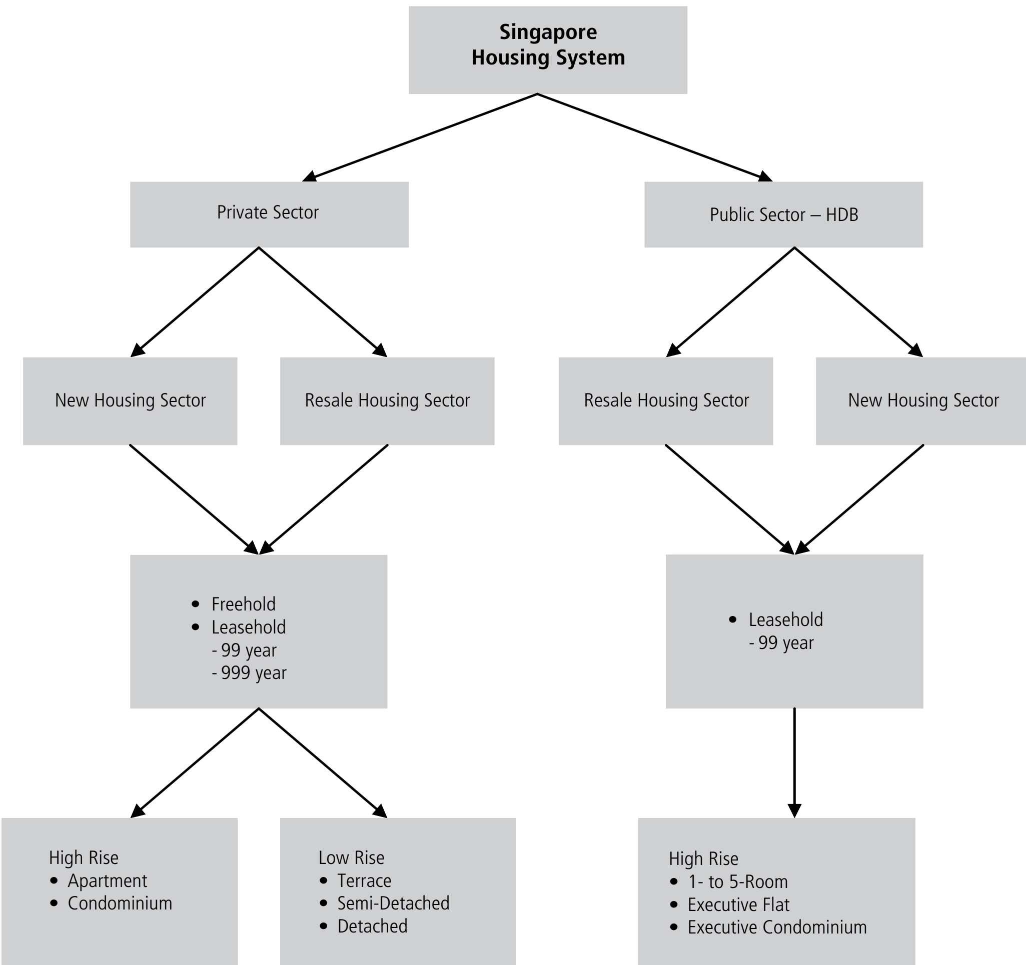
Note: 1. The CPF annual withdrawals may include the purchase of public and private housing, approved medical insurance, approved investment schemes and pensions.
Sources: Central Provident Fund Board (1993-1997) and Department of Statistics (1993-1997), Singapore.

prices could bring about corresponding changes in resale public housing prices.

The private and public housing markets are also interrelated. For instance, higher resale public housing prices could affect the private housing market as public homeowners would have greater affordability to upgrade and purchase the lower-end private housing units. Thus, a rise in resale public housing prices would likely increase the prices of lower-end private condominium and apartments, which in turn would help to boost the prices of larger and more expensive private housing units. This upward filtering phenomenon is however not one-sided as there have been many households moving back from the private housing market to the resale public housing market in recent years when the Singapore economy was in recession.

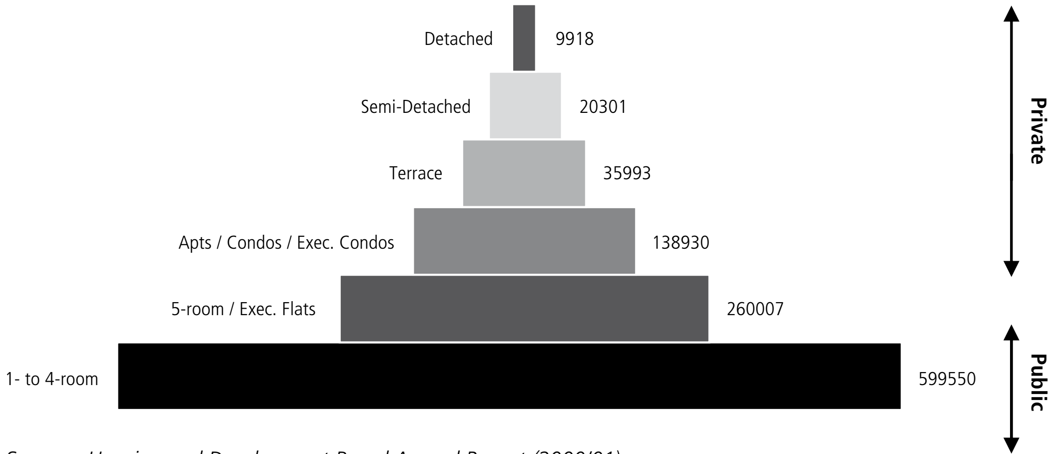
Government Intervention in

FIGURE 3: **Structure of Singapore Housing System**



Source: Authors.

FIGURE 4: **Pyramid Structure of Singapore Housing Market As At Year 2001**



Sources: Housing and Development Board Annual Report (2000/01) and Urban Revedelopment Authority Quarterly Publications (2001), Singapore.

Housing Markets in Singapore

The government has actively intervened in the public and private housing markets in Singapore in several ways that could be categorized in terms of regulations, direct provision, and subsidies.

The Forms of Government Intervention

Regulation

Although the current system of public housing operations and financing in Singapore has been shaped through successive waves of public housing policies and economic development, its main objective of promoting public homeownership has not changed. The development and success of the Singapore public homeownership program, which started in 1964, is basically supported by a number of strategic public housing policies and regulations.

At the onset of the public housing program in the 1960's, due to the acute shortage of housing at that time, the initial access and eligibility criteria for new public housing were very stringent targeting only Singaporean low-income large households of at least five persons. Over the years, as more of the urgent housing needs are being met and the housing shortage problem gradually decreases, the access and eligibility criteria have also become less restrictive. For instance, the citizenship criterion for new public housing in the 1960's required all persons in the household to be Singaporeans but that has been relaxed in 1996 to include at least one Singaporean and one Singapore Permanent Resident in the household, with the Singaporean being the applicant (Housing and Development Board, 1996). Another eligibility criterion is the household income ceiling, which was pegged at S$1,000 per month in the 1960's so that only the lower-income households had access to new public housing. This criterion has since been adjusted numerous times to include more households, where the latest household income ceiling is S$8,000 per month for nuclear households and S$12,000 per month for extended households (Housing and Development Board, 2003).

Among all the policies that promote public homeownership, the CPF Public Housing Scheme has been a major policy instrument to boost household affordability for public housing. When the CPF Public Housing Scheme was first introduced in 1968 to allow households to utilize their CPF savings and monthly contributions to purchase public housing, the number of public housing units sold in that year was twice as many as that sold in the previous three years (Housing and Development Board, 1965 to 1968). In October 1993, the CPF Public Housing Scheme was de-regulated to allow public homebuyers to withdraw their CPF to service the mortgage loan interest payments in addition to 100% of the value of the property as at the time of purchase. To further encourage public homeownership, this scheme was revised in 1996 to allow public homebuyers to utilize up to 100% of their CPF to pay for the 20% initial deposit as well as subsequent mortgage loan repayments. In the main, the CPF Public Housing Scheme has worked well to promote public homeownership so much so that by the end of the 1970's and 1980's, the public housing homeownership rate was 38% and 79% of the total population respectively. However, during the Asian Financial Crisis in 1997, many public homeowners were found to be in mortgage loan arrears. Thus, this scheme was stringently regulated in 1997 to tighten credit and household affordability by requiring public homebuyers to utilize all their existing CPF savings before mortgage loans are granted to them. This credit tightening regulation aims to lower the amount of mortgage loan granted, thereby reducing the quantum of monthly mortgage loan repayments, and hence decreasing the likelihood of arrears.

After a decade of providing new public housing, a resale market for public housing was established in 1971. Public homeowners are given the option of selling their dwellings at a profit under certain conditions. Thus, purchasing public housing is no longer just for shelter but also for investment where the potential profits are great incentives to households to become homeowners. The resale public housing market is basically driven by market forces except for a few regulating policies that work to complement the new public housing market.

One of the major regulations controlling the resale public housing market is the compulsory occupation period before resale. For instance, in 1971, before public homeowners could sell their dwellings on the resale public housing market, they had to fulfill a minimum occupancy period of three years. This regulation was increased to five years in 1973 and then shortened to 30 months in 1985. Public homeowners who wish to sell their dwellings but who do not satisfy the minimum occupation period requirement could only sell their dwellings back to HDB at the original purchase price plus the depreciated cost of any improvements (Wong and Yeh, 1985).

In 1989, the access and eligibility regulations within the resale public housing market were relaxed to promote public homeownership among more categories of households. For example, Singapore permanent residents have been allowed to purchase resale public housing and the household income ceiling restriction is removed. In addition, owners of resale public housing are allowed to purchase private housing for investment purposes, while private homeowners are allowed to purchase resale public housing for occupation (Tan and Phang, 1991).

Another regulation that affects the resale public housing market is the resale levy, which was implemented in 1979 (Phang, 1992). Since 1979, public homeowners who sold their dwelling in the resale public housing market, and then purchased a second new public housing from the HDB were required to pay a resale levy of 5% of the selling price of their first dwelling. A graded resale levy was subsequently implemented in 1982 whereby sellers of public housing could choose to pay either a graded resale levy on their first dwelling or a fixed premium on their second unit when they purchase another new public housing from HDB. The resale levies of 10%, 15%, 20% and 25% were imposed for three-room, four-room, five-room and Executive apartments respectively. The resale levy was calculated based on 100% of the selling price or 90% of the market valuation, whichever was higher. The fixed premium, which was pegged at 20% of the selling price or market valuation, whichever was higher, was in effect until 1997 when it was abolished. Since 1997, public housing sellers who wish to purchase another new public housing from HDB are required to pay a resale levy of 15% for two-room, 20% for three-room, 22.5% for four-room, and 25% for five-room and Executive apartments.

To facilitate the filtering process, encourage home ownership as well as to boost the level of activity within the public housing market, the Contra Facility Policy has been established. The role of this policy is to assist public homeowners to sell their existing dwelling in the resale public housing market while simultaneously purchasing another resale dwelling. Under this policy, the CPF funds in the sales proceeds could be utilized directly to pay for the purchase of the new unit without having to be refunded into the seller's CPF account first. In this way, purchasers of resale public housing would not be burdened with a large cash outlay, a bridging loan, and high mortgage loan repayments (Housing and Development Board, 2001).

When the high level of activity and rampant speculation within the public housing market started to develop into a property bubble during the property boom in the mid 1990's, the government regulated the housing market by implementing several market stabilising and anti-speculation measures in 1996. Among the initiatives targeted at the public housing market is the extension of the minimum time restriction from five to 10 years before eligible households could purchase a second new public housing unit from HDB. However, this regulation only applies to public homeowners who purchased their current dwellings directly from HDB and subsequently wish to re-apply to HDB for another new dwelling. The restriction does not affect the eligibility of public homeowners to sell their dwelling and then purchase resale public housing in the resale market after the five-year minimum occupancy period.

Direct Provision

The existence of the public housing market in Singapore is the manifestation of the government's commitment to provide decent housing for its population. In view of the dire housing shortage and unsanitary living conditions before the 1960's, the government has chosen to directly provide housing through the HDB as this is the most efficient and effective way to increase the housing stock. HDB plans and construct public housing based on 5-year building programs. It is currently on its ninth 5-year building program from 2001 to 2005. The Singapore government supports the provision of public housing by giving HDB housing development loans; mortgage financing loans as well as government grants (see Section 2.1.1). In addition, the Land Acquisition Act, which was established in 1967, facilitates compulsory acquisition of private land for public housing development.

As at March 2003, the total number of public housing built and managed by HDB amounted to 868,774 units (Housing and Development Board, 2003). Of these, 319,428 were 4-room public housing, 229,226 were 3-room dwellings and 201,162 were 5-room units. The total stock of public housing provided by the government consisted of 815,633 owner-occupied public housing as well as 53,141 rental dwellings (Housing and Development Board, 2003).

Since housing has spillover effects on the social structure of a country, the Singapore government has also attempted to fulfill its many social objectives through its direct provision of housing. Some of the main social goals and initiatives that have been supported by public housing provision and policies are highlighted below.

As Singapore is a multi-racial, multi-cultural society, social harmony is a very important factor for stability and growth. Thus, the Ethnic Integration Policy has been established to ensure that racial enclaves are not formed within public housing developments. The allocation and provision of new and resale public housing has to adhere to a fixed maximum allowable quota for each race which is determined by the population's racial proportions. For instance, the maximum ethnic quota for public housing neighborhoods have been set at 84% Chinese, 22% Malays and 10% Indians, while the public housing apartment blocks have more flexible ranges with up to 87% Chinese, 25% Malays and 13% Indians.

Another of the government's social objectives is to strengthen family ties by encouraging children to live near or with their parents. The Joint Balloting Scheme established in 1978 as well as the Multi-tier Family Housing Scheme formulated in 1982 are two examples of public housing policies that support this government objective. Under the Joint Balloting Scheme, parents and a married child who are currently on the queue for new public housing could be allocated adjoining dwellings. Both households are balloted adjoining units when the smaller of the queue numbers is due for allocation. The Multi-tier Family Scheme, on the other hand, accords three years retrospective priority to a multi-tier family, which is defined as one where the parents and one or more married children's families are listed in the same household for the purchase of a single public housing unit.

With 84% of the total population in Singapore already housed in public housing (Housing and Development Board, 2003), the government has started to focus on the housing needs of minority groups such as the elderly and the single Singaporeans. For the elderly, the Studio Apartment Scheme was launched in 1998 to enable public homeowners who are 55 years old and above to convert their housing assets into cash by selling their existing dwellings and purchasing studio apartments from HDB. After selling their existing public housing in the resale market, the elderly applicants could utilize the sales proceeds to pay for their studio apartments, with the remainder being invested in annuity plans or withdrawn as cash. There are currently two types of studio apartments measuring 35 square metres or 45 square metres, and costing between S$63,300 and S$86,500 respectively. For single-person households, the Single Singaporean Citizen Scheme introduced in 1991 and revised in 2001 allows a single person above 35 years of age (21 years or more in the case of widows) to purchase three-room and smaller resale public housing at market prices (Housing and Development Board, 2003).

Finally, in view of the shrinking resident population and declining fertility rate in Singapore, the government encourages young couples to marry early and set up families. The Fiancé/Fiancée Scheme, which has been established for this purpose, allows couples to join the waiting list for new public housing and only after taking possession of their new dwelling are they required to produce their marriage certificates. To prevent abuse, the Fiancé/Fiancée Scheme was revised in 1996 such that couples that apply under this scheme are not allowed to change the family nucleus in the applications. This ensures that the couples applying under this scheme do so only when they are certain that they are going to get married and set up a family. Under this scheme, the applicants are required to pay a registration deposit of S$5,000 at the point of application. This deposit is later deducted from the initial down payment for the purchase. Those applicants who change partners would have to re-apply and re-queue, and have their registration deposit forfeited.

Subsidies

One of the major policies that encourage public homeownership is the provision of mortgage financing loans by the HDB. Since 1986, the HDB mortgage loan interest rate has been pegged at 0.1% above the CPF savings rate. The HDB mortgage loan interest rate is highly subsidized and is approximately half that of the market mortgage interest rate charged by commercial banks. The HDB mortgage loan interest rate is adjusted every six months in January and July, and the repayment period of the mortgage loan is either 5, 10, 15 or 25 years (Phang and Wong, 1997). In 1993, this policy was expanded to provide subsidized mortgage loans to purchasers of resale public housing whereby the public homebuyers could utilize up to 80% of the market valuation or purchase price of the dwelling, whichever is lower.

To ensure that households do not consume housing beyond their affordability level and run into arrears, in 1997, together with the revision of the CPF Public Housing Scheme, HDB implemented a few credit tightening measures such as credit assessment of public homebuyers, limitation to two subsidized mortgage loans from HDB, as well as charging market interest rate for public housing mortgages.

With effect from 1997, all public homebuyers are assessed based on their age and gross monthly household income to determine the amount of subsidized mortgage loan to be granted to them. The maximum mortgage loan quantum for new public housing is 80% of the purchase price, while that for resale dwellings is 80% of the transacted price or market valuation, whichever is lower. The maximum mortgage loan repayment period is based on the age ceiling of 65 years less the age of the youngest joint purchaser, or 30 years, whichever is shorter. In addition, the monthly mortgage loan repayment should not exceed 40% of the gross monthly household income. To ensure that the subsidized mortgage loans are directly available to the target households, lower income households who are purchasing three-room or smaller public housing from HDB, tenants buying rental public housing under the Sale of Flats to Sitting Tenants Scheme, households affected by involuntary displacement as well as households under the Government's Small Families Improvement Scheme and HDB Low-Income Family Incentive Scheme are exempted from the credit assessment, and may in fact borrow up to 90% of the purchase price.

Since 1997, public homebuyers are allowed up to only two subsidized mortgage loans, regardless of whether their dwellings are purchased from HDB or from the resale market. If the public homebuyers, including their family members, have already obtained two subsidized mortgage loans previously, their next mortgage loan would be pegged at market interest rates. In addition, purchasers of resale public housing are charged market mortgage interest rates if their monthly household income exceeds S$8,000, or if they and/or their family members own private residential, commercial or industrial properties. This policy review aims to provide a wider spread of the housing subsidies to all eligible households, especially the lower-income categories.

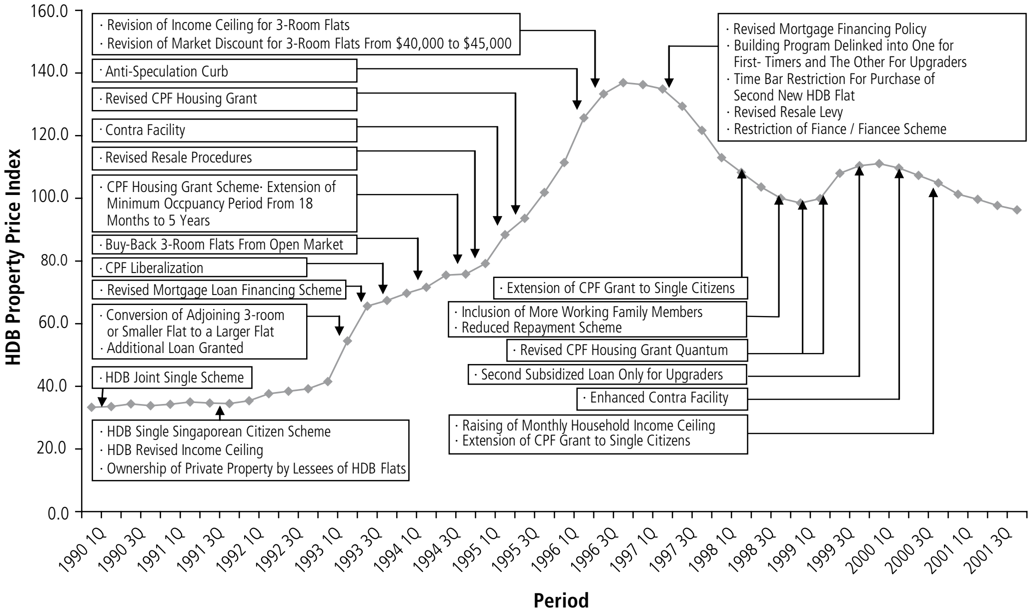
During the Asian Financial Crisis, the mortgage loan financing policy was further revised in 1998 to allow public homeowners to include one or more eligible employed family members as joint owners, up to a maximum of four. In this way, the newly included public homeowners could help to service the mortgage loan repayments through the use of their CPF. Another policy to assist public homeowners during the Asian Financial Crisis is the Reduced Mortgage Repayment Scheme, which allows the mortgage loan repayments for the first five years to be fixed at 75% of the normal amount, thus reducing the public homeowners' financial hardship in the initial five years. From the sixth year onwards, the public housing mortgage loan repayments are re-computed based on the outstanding loan at the beginning of the sixth year. Under the uncertain economic climate in the late 1990's, households were discouraged from moving such that in 1999 only public homebuyers who purchase larger units were granted subsidized mortgage loans. Public homebuyers purchasing dwellings of the same size or smaller are not eligible for such subsidies.

Another type of government housing subsidy is through the CPF Housing Grant Scheme. This scheme was introduced in 1994 to assist first-time public homebuyers to purchase resale public housing as well as to strengthen family ties. A CPF housing grant of S$30,000 was awarded to eligible first-time public homebuyers who purchased resale public housing within two kilometres of their parents' homes. First-time public homebuyers are defined as those households who have not purchased private housing or new public housing before. With effect from 1995, the CPF grants to first-time public homebuyers have been revised to S$40,000 for those who purchase resale public housing and S$50,000 for those who purchase resale public housing near their parents. This scheme has since been extended to Executive Condominiums in 1996 whereby first-time homebuyers who purchase Executive Condominiums are eligible for a CPF housing grant of S$40,000. In 1998, the scheme was further extended to single Singapore citizens. Single Singapore citizens, aged 35 and above, are eligible for a CPF housing grant of S$15,000 when they purchase a resale public housing unit on their own, and S$30,000 when they do so jointly with another single Singapore citizen. With this policy change, single Singapore citizens are no longer allowed to apply jointly for new public housing from HDB. HDB is therefore able to focus on building subsidized new public housing for nuclear households who have greater housing needs. As the prices of resale public housing and Executive Condominiums continued to fall in the late 1990's and became more affordable, the CPF grant has been gradually reduced since 1999 back to the level when the grant was first introduced in 1994.

In order to better focus the housing subsidies on the lower-income households, in 2000, the government established the Special Housing Assistance Program (SHAP). One initiative within SHAP is the Three-room Buy-Back Scheme whereby owners of two-room public housing are allowed to buy three-room repurchased public housing from HDB as their second subsidized dwelling. Under this scheme, the resale levy for the two-room public housing is reduced to 10% of the selling price and the minimum occupancy period is decreased to five years. Another SHAP policy is the Low-Income Family Incentive Scheme, which is a highly subsidized easy mortgage loan scheme for the purchase of cheaper four-room or smaller units. The Rent and Purchase Scheme as well as the Sales of Flats to Sitting Tenants Scheme are also SHAP initiatives that have been implemented to make home purchase more affordable to public housing tenants. In 2000, HDB increased the maximum tenancy discount under the Rent and Purchase Scheme and the Sales of Flats to Sitting Tenants Scheme to S$15,000 per dwelling. As SHAP is aimed at the lower-income households, to qualify for all these SHAP schemes, the maximum household income ceiling is limited to S$2,000 per month.

Figure 5 shows the chronological order of the various government policies as well as the trend of the HDB property price index from first quarter 1990 to fourth quarter 2001. As shown in Table 3, there is a 20-quarter upswing observed from fourth quarter 1991 to first quarter 1999. Many housing policies implemented during that period have boosted the demand for public housing such that

FIGURE 5: **Public Housing Price Index and Government Policies in Singapore (1990-2001)**



Sources: Housing and Development Board (1990–2001), Singapore.

the public housing prices have increased by 297.29% (see Table 3).

Impact of Government Intervention

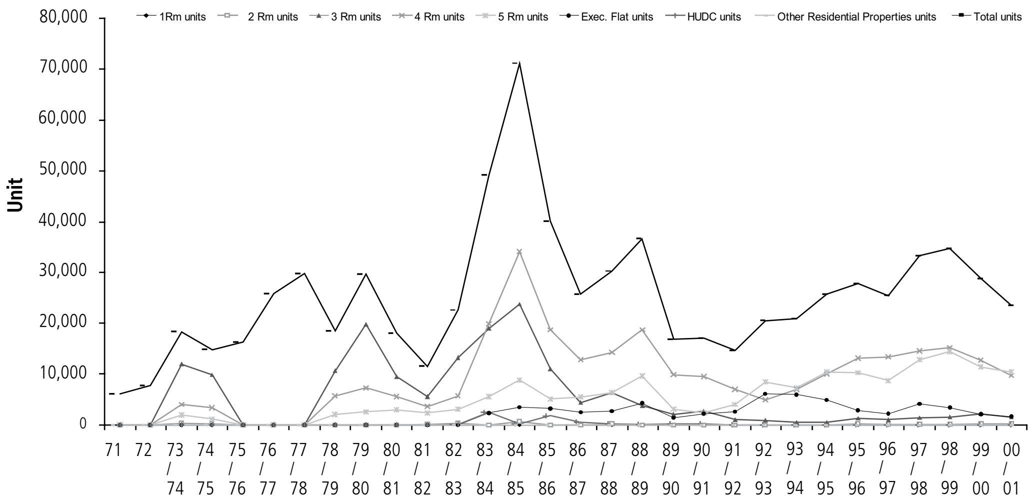
The public housing policies implemented in the 1960's and 1970's provided a variety of incentives to encourage public homeownership, widened the cost differences between private and public housing, as well as increased the rate of household formation as more young married couples chose to live separately from their parents. As a result of these trends, the number of new public housing units sold in the late 1970's surpassed the earlier quantities sold since HDB was established (see Figure 6). By the end of the 1970's, the public housing sector had accommodated 67% of the total

TABLE 3: **Public Housing Price Cycle in Singapore (1st Qtr 1990 to 1st Qtr 2002)**

Timing of Trough	Peak	Trough	Duration Upswings	(Quarters) Downswings	Scale Upswings (Peak – Trough) / Trough	Downswings (Trough – Peak) / Peak
1990 1Q	1990 3Q	1990 4Q	2	1	3.24%	-1.67%
1990 4Q	1991 2Q	1991 4Q	2	2	3.49%	-1.54%
1991 4Q	1996 4Q	1999 1Q	20	9	297.29%	-28.05%
1999 1Q	2000 1Q	2002 1Q	4	8	12.79%	-14.04%

Sources: Housing and Development Board (1990–2002), Singapore.

FIGURE 6: **New Public Housing Sold in Singapore (1971-2001)**



Sources: Housing and Development Board (1971-2001), Singapore.

population, with 38% of the total population in public homeownership (Housing and Development Board, 1980).

In the 1980's, the public housing policies concentrated on encouraging public homeownership by providing more choices in terms of dwelling sizes and locations, as well as motivating public homeowners to sell and upgrade their dwellings. As a result, the public housing resale market expanded very rapidly during this period of time. The filtering-down effect, created by the public housing resale policies, enabled the lower-income households to purchase the smaller and older dwellings, thereby making public homeownership even more popular and accessible. By the end of the 1980's, public homeownership has increased to 79% of the total population (Housing and Development Board, 1990). The doubling of the public homeownership rate was essentially due to the increases in savings rates and CPF contribution rates. The Gross National Savings in Singapore reached 39.4% of its GDP in 1983 (Department of Statistics, 1983). Most of the domestic savings were generated by the public sector, particularly through the CPF. By 1984, the combined CPF contribution rates from both the employee and the employer reached 50% of the employee's salary; see Figure 2, thereby significantly enhancing household affordability. Other measures that have also contributed to public homeownership include the upward adjustment of household income ceiling to S$8,000, reduction in owner-occupier property tax rate to 4% of annual value as well as the extension of the mortgage loan repayment period to a maximum of 30 years.

A two-prong approach was undertaken by the HDB in the 1990's. As the main housing authority in Singapore, the HDB has to continuously review and revise its public homeownership policies so as to meet the population's rising expectations. More designs and choices for public housing as well as better mortgage financing facilities for resale dwellings were provided to a wider spectrum of target households. On the other hand, HDB has to ensure that public housing remains accessible and affordable to the lower-income households by pricing the smaller dwellings so that at least 90% of the total households could afford them. In addition to promoting public homeownership, public housing policies have also been employed by the government to stabilise the new and resale public housing markets, for instance the implementation of the time restriction before buying a second new dwelling from HDB as well as the introduction of resale levies. When the Singapore property and job markets were severely affected by the Asian Economic Crisis in the late 1990's, public housing policies, in particular mortgage financing measures, have been implemented to assist public homeowners who were having financial difficulties in repaying their mortgage loan. Finally, with a large majority of the population living in public housing, public housing policies in Singapore are convenient, efficient and effective tools by which the government could employ to achieve its social and economic goals.

The Housing System

CHAPTER 3: HOUSING SYSTEM AND IMPACTS OF GOVERNMENT INTERVENTION ON HOUSING MARKETS IN HONG KONG

in Hong Kong

Hong Kong is consistently regarded as the freest economy in the world. However, it now operates the second largest public housing system in market economies in terms of percentage of population living in housing units (Castells, et al. 1990). The birth of public housing in Hong Kong is as described by John Miller, the Director of Housing, Hong Kong Special Administrative Region, China, "almost accidental and largely reactive". The massive fire at Shek Kip Mei, a squatter area on Christmas Day 1953 marked the start of the housing programme. Faced with some 50,000 homeless fire victims, the HK government stepped in to provide emergency housing. However, it was only in the 1973 with the establishment of the HK Housing Authority that a more systematic housing policy programme began (HBD, 2000). The Housing Authority was to fulfill the following functions (Housing Authority, 1996):

- to plan and build public housing estates for classes of people determined by the Authority;
- to manage public housing estates throughout Hong Kong;
- to clear land for development, subject to any direction from the chief executive (earlier, the Governor);
- to prevent and control squatting;
- to advise the government chief executive on all housing matters.

Now the Housing Authority has about 660,000 public rental flats in 160 estates and over 200,000 home ownership flats in 131 courts, providing accommodation for half of Hong Kong's population. It manages some one million sq. m. of commercial space. The tenants, on average, enjoy 8 sq. m of living space per person. Within each public rental estate, we have included in commercial centres, schools, welfare premises, recreational open spaces, and landscaped gardens. Other than places of work, therefore, the tenants' daily necessities are well catered for within the confines of the estates (Fung, 1996).

The Housing Authority assumes the responsibility to provide assistance to low-income families who cannot afford private rental accommodation. About 2.1 million people (31% of the population) lived in public rental housing estates in 2003. The stock was about 676,900 flats. There were about 91,300 applications on the Waiting List. The average waiting time for public rental housing was 2.2 years. The government had been over a year ahead in achieving the original target of three years by 2003 (Government Information Centre, 2004).

Public housing rent levels are determined on the basis of tenants' ability to pay. The principle of affordability is measured by appropriate median rent-to-income-ratio ceilings for its estates. The overall median rent to income ratio of households is limited to 10 per cent in any rent adjustment exercise, and the implementation of rent adjustment can be done no more frequently than once every three years. In 2003, the ratio for public rental housing was 13.8 per cent. In efforts to try to offer more choices to prospective public rental housing tenants, the Housing Authority introduced in August 2001 a pilot rent allowance scheme by providing a cash subsidy in lieu of public rental housing for elderly households. More than 1,800 households have applied for the scheme by 2003 since its inception (*ibid.*).

The Housing Authority encourages home ownership. Since 1978, over 421,000 subsidised flats have been sold to households of low and middle income groups at discounted prices under the various subsidised home ownership schemes. The Housing Authority believes that home ownership should essentially be a matter of personal choice for people. The main criterion to determine the prices of these home ownership flats is affordability (Fung, 1996). As a result of major downward price adjustments in the private property market, there was a significant overlap between the target group of the Home Ownership Scheme (HOS) and that of the private sector residential market. To reflect the changing circumstances, the Housing Authority decided in 2002 to withdraw from its role as provider of subsidised sale flats and refrain from competing with the private residential market. Specifically, it decided that the production and sales of HOS and Private Sector Participation Scheme (PSPS) flats will cease from 2003 onwards and the sale of public rental housing units under the Tenants Purchase Scheme (TPS) will be halted after Phase 6 (Government Information Centre, 2004).

All these traditional approach in providing assistance to the low and middle income groups to own their homes are to be replaced by a more direct and flexible form of subsidy - the new Home Assistance Loan Scheme introduced in 2003. The scheme presents itself as a viable alternative in meeting the home ownership aspirations among eligible families or persons in the community and replaces the Home Purchase Loan Scheme (HPLS) and Home Starter Loan Scheme (HSLS) with streamlined loan procedures. It provides home purchase assistance towards down payment and related expenses, in the form of an interest-free loan or monthly mortgage subsidy, to those who cannot afford to buy a reasonable flat in the private market (*ibid.*).

Hong Kong has designed a housing system which addresses the housing needs of the society. As time evolves, it changes from the base of meeting the emerging needs of the people, then moving up to take care of the upper levels of the market. It changes from quantitative emergency relief to a more quality-oriented housing system (Castells, et al 1990).

Government Intervention and its Impacts on Housing in Hong Kong

The rapid economic growth in Hong Kong has attracted wide academic interest. Much has been written about this miraculous experience and often attributed Hong Kong's economic success to its *laissez-faire* economic system. The Hong Kong government is well known for its non-interventionist approach (Lam, 2000). However, the government in Hong Kong has probably more interventions in the housing sector than in many other economies, while the housing market in Hong Kong still remains one of the most viable and dynamic in the world. There are considerable debates over what impacts the government intervention has on the housing markets. In developed countries, the existing literature concentrates on the government's provision and its impact on housing markets. One school of research shows that direct housing provision by the government does not have much impact on the housing sector since the private sector and public sector serves different groups of the society. The two sectors do not affect each other because of entry restrictions in the public housing sector. This school of arguments are often referred as the dual market model (for example, Kemeny, 1995; Turner, 2000; Zhang, 2001). However when the public housing provision reaches a very high level, the function of the public sector has gone far beyond meeting the housing need of the most needed and the poor segments of the population. The public housing provision becomes an attractive substitute for private housing. At the high end of housing standard provided by the government, the boundary of dual markets becomes blurred.

However, there is a literature that attempts to explore government intervention in the housing sector in Hong Kong. This literature reviews the government housing programmes (Li & Yu, 1990; Yu & Li, 1985; La Grange, 1997; Mo and Ng, 1997). The impact of government intervention, particularly on housing markets has been overlooked. The paper looks at the forms of government intervention, the extent of government intervention and the impacts of government intervention on housing markets in Hong Kong.

The Forms of Government Intervention

Regulation

Government intervention in the housing sector can take many forms. The common approaches are regulation, subsidies and direct provision. The most common one is regulation. Regulation may involve direct control or prohibition of certain actions and the use of incentives and disincentives through charges, subsidies and other measures to guide the behavior of private firms and individuals to achieve socially desirable outcomes (McAleese, 2001). Regulation is the norm, not the exception (Averch, 1990). Before World War II, the only government intervention in the housing sector in Hong Kong was regulation.

By the beginning of the twentieth century, Hong Kong had some experience with regulation in the built environment. Based on Obsbert Chadwick's report of the sanitary situation in Hong Kong in 1881, a Sanitary Board was established in 1883 in response to his recommendations while a Public Health Ordinance was introduced in 1887. In a colony that upheld the laissez-faire economic philosophy, the Ordinance was only to ensure the minimum health standard for housing provision.

Up to World War II, the government's involvement in housing was very limited, the major regulation on housing remained to be the 1903 Public Health and Building Ordinance and its 1935 revision, which was mainly a health and safety regulation. The operation of the market system was virtually untouched by regulations. The World War II and the Civil War dramatically changed the economic and social backgrounds in which the market system operated. New regulation on rent control was introduced to directly intervene in the housing market to prevent the profiteering activities of landlords during a time of extreme mismatch of housing supply and demand. Apart from providing minimum regulations for the market, the colonial government in Hong Kong remained inactive in government intervention.

Direct Provision

The World War II was a turning point for the Hong Kong government to change its philosophy and approach to the housing issue. World War II created a world-wide sentiment for more government intervention.. On the other hand, the World War II and the Civil War in China caused a massive wave of immigrants from mainland China to Hong Kong (Table 1). The total population increased from 900,000 in 1945 to 2,300,000 in 1949 (Zhang, 2000).

The market system could not cope with the

TABLE 1: **Population Growth in Hong Kong 1945-57**

Year	Natural Increase	Migration Movement	Total Population
1945			900,000
1946	+14,000	+486,000	1,400,000
1947	+29,000	+371,000	1,800,000
1948	+34,000	+166,000	2,000,000
1949	+38,000	+252,000	2,300,000
1950	+42,000	-242,000	2,100,000
1951	+48,000	+27,000	2,175,000
1952	+53,000	+22,000	2,250,000
1953	+57,000	-57,000	2,250,000
1954	+64,000	+186,000	2,500,000
1955	+71,500	-171,000	2,400,000
1956	+77,500	+57,500	2,535,000
1957	+78,500	+63,500	2,677,000

Source: Zhang (2000)

increase in housing demand at such a big scale due to explosive population growth. Because the short run supply of housing is inelastic, the increase in demand will shift the demand curve upward and the prices rocket up (Berry, et al., 2001). The escalation of prices made more people facing affordability problems. This increased the government's pressure to intervene. However the government still maintained a non-interventionist approach and limited its action to rent control. The government held the view that in most circumstances it was futile or damaging to the economy if attempts were made to plan and control the allocation of resources available to the private sector and to frustrate the operation of market forces (Lam, 2001). Therefore, the government did not take any actions to directly provide housing to solve the problems of severe housing shortage and overcrowding conditions faced after World War II and the Civil War.

The big fire of Shek Kip Mei on Christmas Eve in 1953 changed the government's reluctance to direct intervention. The fire made more than 50,000 residents homeless. The government demonstrated itself to be a very efficient institution to tackle the crisis and immediately began to solve the housing problems of fire victims and also drawn its attention to the large scale of squatter settlements in Hong Kong. In 1954, a Resettlement Department was established within the Public Works Department to be responsible for housing victims of the 1953 fires and to relocate squatters at lowest possible costs. The government aimed to relocate 50,000 persons each year in these publicly provided housing estates. The spatial standard of public housing was 2.2 m^2 per person with an average room size of 11 m^2 (Castells et al, 1990). Since then, the government embarked on its most ambitious intervention in housing provision (Fong, 1997).

Subsidies

Another way the government can alter the allocation of resources and distribution of incomes is through subsidies. There are two types of subsidies in practice: the producer subsidy approach and the consumer subsidy approach. For the producer subsidy, the government may provide capital grants or below market rate of interest for housing built by governments or non-profit social organizations (Howenstine, 1986). The government also provides free land for housing provided by the housing authority or very low land prices for private initiatives in providing social housing. The increasing involvement by the social organizations such as the Hong Kong Housing Society and by the private sector to achieve the certain housing objectives favor the producer subsidy approach instead of direct housing provision by the government.

The consumer subsidy approach appears in the form of altering relative housing prices in Hong Kong rather than through explicit housing allowances to consumers. Consumers gain housing benefits through the relatively lower prices than the market prices. Since the prices of public housing and social housing provided by private and third sectors are controlled by the government. Therefore tenants and purchasers of these price-controlled housing receive in-kind subsidies.

The Extent of Government Intervention

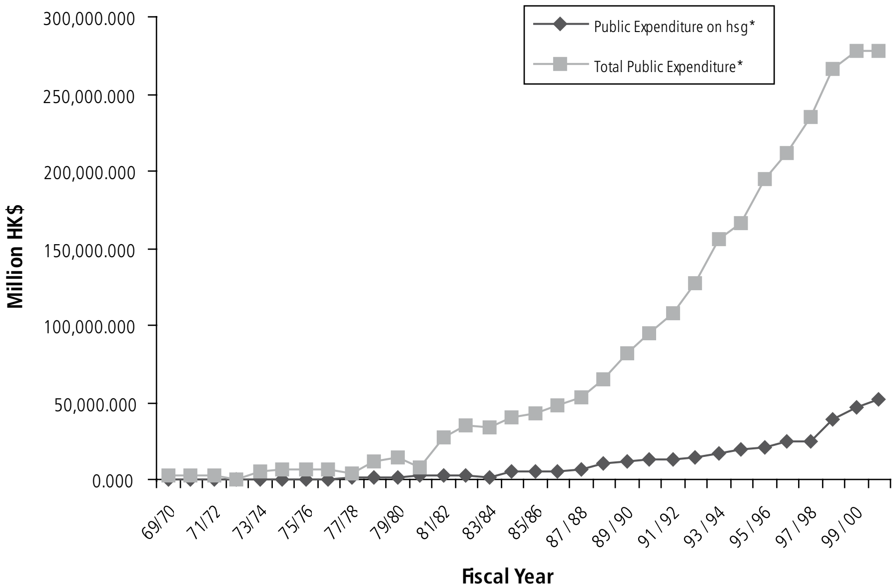
The examination of the impact of government intervention requires measuring the extent of government intervention. Existing studies often use government expenditure or taxation as indicators for measuring the level of government intervention (Lam, 2001; Berry et al, 2001; Zhu, 1997). The data on government expenditure shows that the Hong Kong government had a very low level of expenditure before mid 1970s (Figure 1). This finding confines to its non-interventionist philosophy. However, since mid 1970s, the government expenditure has showed rapid increases. The overall government expenditure in 2000/2001 was more than 33 times that of the 1980/1981 fiscal year.

The government expenditure on housing increased more rapidly than the overall government expenditure. The government's housing expenditure in 1969/1970 was 11 million, which accounted for 0.5 percent of total government expenditure. The share of public housing expenditure in the total government expenditure since then saw a stable increase. The public housing spending reached 51,905 million in 2000/2001 and accounted for 18.6 percent of the total government expenditure.

From the measurement of government expenditure, the Hong Kong government has become increasingly interventionist since late 1970s. However the observed main intervention remained in the housing market by increasing its pubic expenditure on public housing. The government was aware of the continuing expansion of its intervention in the housing sector and attempted to reduce the government's role by encouraging the participation of the private sector in achieving public housing goals through the private sector participation scheme which was introduced in 1978.

In the late 1970s and early 1980s, the Sino-British negotiation on the Hong Kong's future seemed to have great influences on the government's traditional non-interventionist approach. The government's expenditure became more generous. Besides its active role in land supply and public housing, the Hong Kong government also began to extensively interfere with the social and community development and even political development (Lam, 2001). The Chinese government worried about the large extent of government intervention in the property market and its increasing scale of land supply to generate revenue to cope with its fast growing government expenditure. Because the large extent of government intervention would lose Hong Kong's attractive identity and asset of a laissez-faire system, both British and Chinese governments agreed to limit the rapid growth

FIGURE 1: **Overall Government Expenditure and Government Expenditure on Housing in Hong Kong 1969-2000**



Source: Finance Bureau

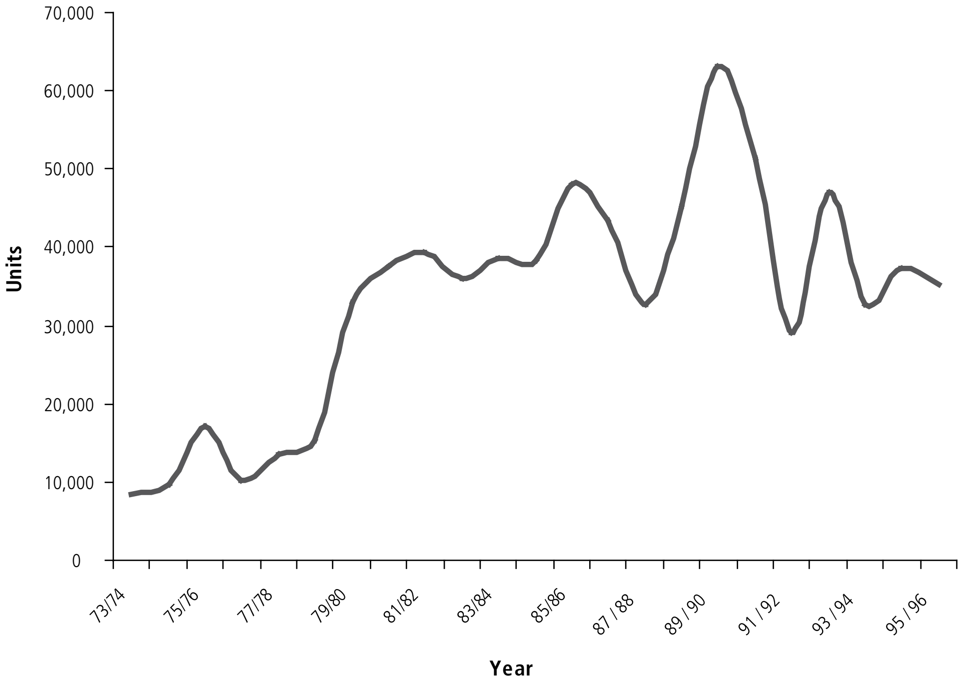
of government intervention. The Sino-British declaration in 1984 required the government to limit its land supply to 50 hectares per year up to 1997. However, such measures were hardly effective, since the government's land supply for public housing was not under this control. The government expenditure had not been controlled but in constrast, experienced the most rapid increase in 1980s and 1990s.

Probably government direct provision is a more explicit measurement for government intervention. The government provision of housing focused on resettlement during the first 10 years of public housing programme. The scale of public housing provision was below 10,000 units a year between 1954/55 and 1959/60. Since early 1960s, the government began to expand the public housing programme beyond providing resettlement quarters. The total annual public housing increased from 9,917 units in 1959/60 to 14,130 units in 1978/79. However, the provision of social housing (including a very small amount of housing units produced by housing society) has increased tremendously since 1980s. The annual completion of social housing increased 115 percent in 1979/80 over the previous year. The average housing production had experienced substantial increase in 1980s and 1990s before the handover in 1997 (Figure 2).

The new government after the handover in 1997 put housing on top of its agenda. It further increased its intervention in the housing sector. The annual production of social housing increased from 32,975 units in 1996/97 to 89,002 units in 2000/01. The government has not only increased its production but also extended the scope of intervention since 1970s. The government restructured the housing organizations to increase its capacity for extended intervention.

All housing agencies were organized into a single institution – the Housing Authority. The

FIGURE 2: **Total Provision of Social Housing in HK**



Sources: Housing Authority Annual Reports, various issues.

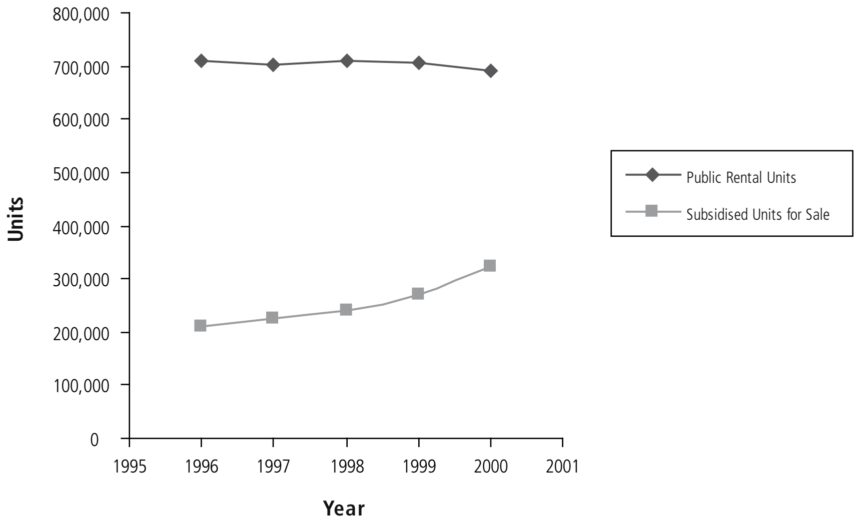
assigned functions of the Housing Authority were to plan, build and manage public housing, multistory factories, and shopping centres; and to clear land for development and control squatting (Castells et al, 1990). In 1978, the government was involved in the owner-occupier housing market. It introduced a Home Ownership Scheme in 1976 and the Private Sector Participation Scheme in 1978. Some 324,700 subsidised sale units had been built by 2000. Figure 3 shows that the government intervention has shifted from the rental housing sector to the owner-occupied sector.

The scale of government intervention reached an astonishing level. By 2000, there were 961,200 public rental housing units and 324,700 subsidised sale units. The population living in public housing sector increased from 1,947,632 in 1980/81 to 3,235,200 in 2000/01 (Figure 4).

The Hong Kong government does not have direct control over private housing prices. But it attempts to influence private housing prices through land supply, public housing production, control of public housing prices and financial measures. Land supply was completely controlled by the government. The government decided the amount and pace of land supply. The government plans and builds public housing and determines the public housing rents and prices. Publicly-produced owner-occupied housing prices were less than half of that by the private sector (Figure 5).

The Impact of Government Intervention

FIGURE 3: **The Shift of Government Intervention in Hong Kong**



Source: Department of Census and Statistics

FIGURE 4: **Population living in the Public Housing Sector in Hong Kong**

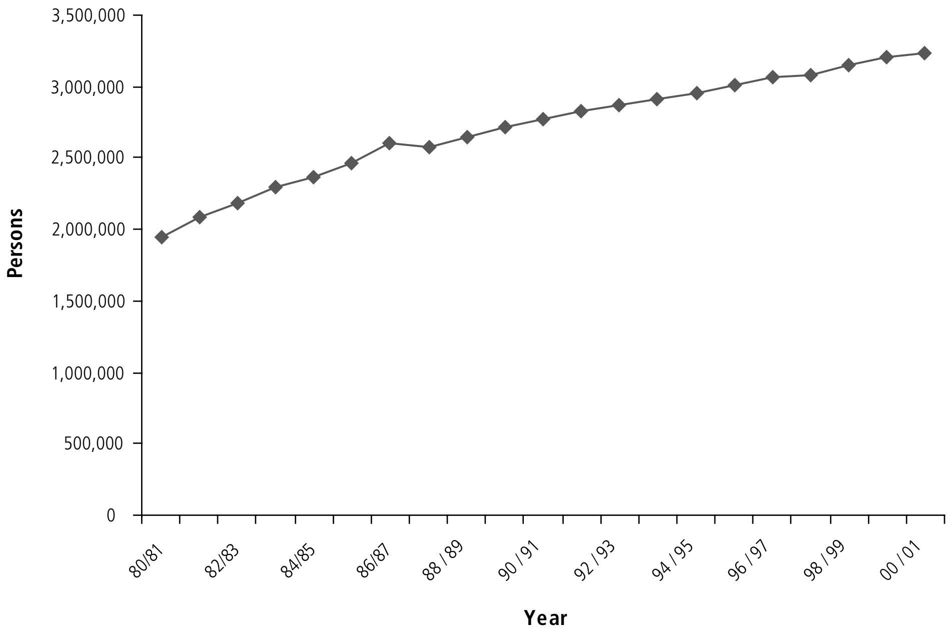
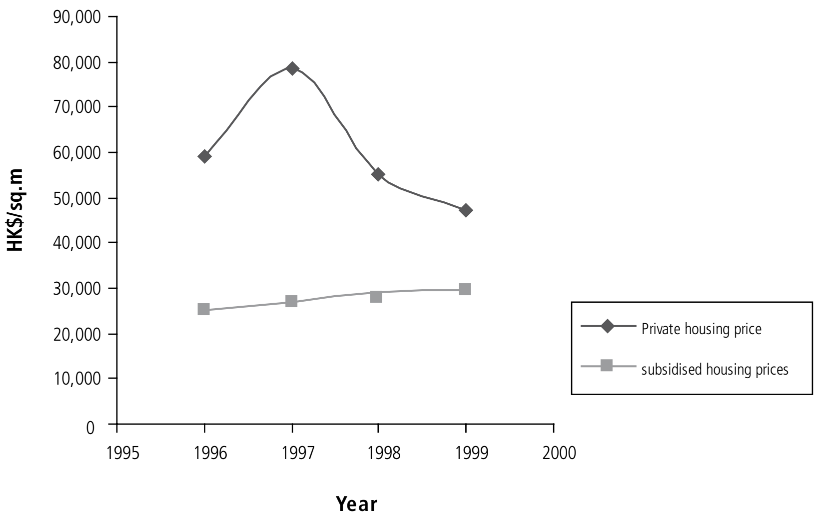


FIGURE 5: **Housing Price Controls in Hong Kong**



Source: Housing Department

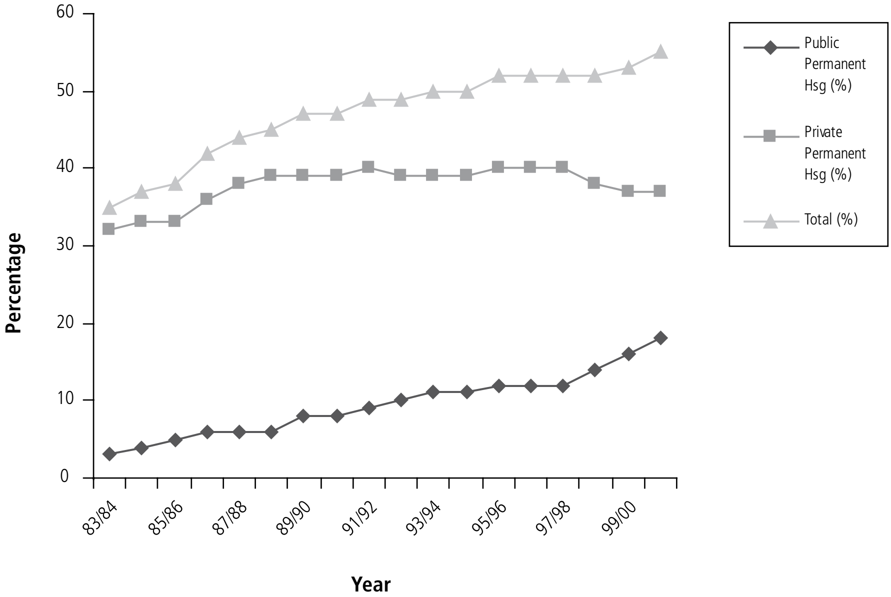
The Impact on the Tenure Structure

Government intervention has a great impact on tenure structure. For a long period, housing policies concentrated on providing low cost rental housing for relocation of squatters and for housing low income households. However, since 1978, the ideology of housing policy has shifted from providing basic standards of housing for poor people and housing hardship households to promoting home ownership. In countries like UK, the promotion of home ownership reflected the ideology of the conservative party. It was part of the strategy to privatize the public housing sector. It was much about the sale of the existing public housing stock to sitting tenants and therefore to reduce the role of the government in the housing sector. However, in Hong Kong, the promotion of home ownership was to start fresh programmes to build flats for sale by the government. Therefore the role of the government was not reduced but expanded. It introduced a Home Ownership Scheme in 1976 and a Private Sector Participation Scheme in 1978.

After the handover in 1997, the sentiment for a home ownership society has even become stronger. The government has explicitly expressed its tenure-preferential policy. It strongly favours home ownership over rental housing. Chief Excutive Tung in his first policy address created a vision of home ownership city and aspired to achieve a home ownership rate of 70 percent. "The government is fully determined to achieve this target". It actively promoted home ownership through a range of measures. In the 1998 budget, the government provided HK$ 3.6 billion to double the number of first-time buyers through the home starter loans scheme and provided HK$ 3.3 billion to increase the number benefiting from home purchase scheme by 2.2 times (Lam, 2001).

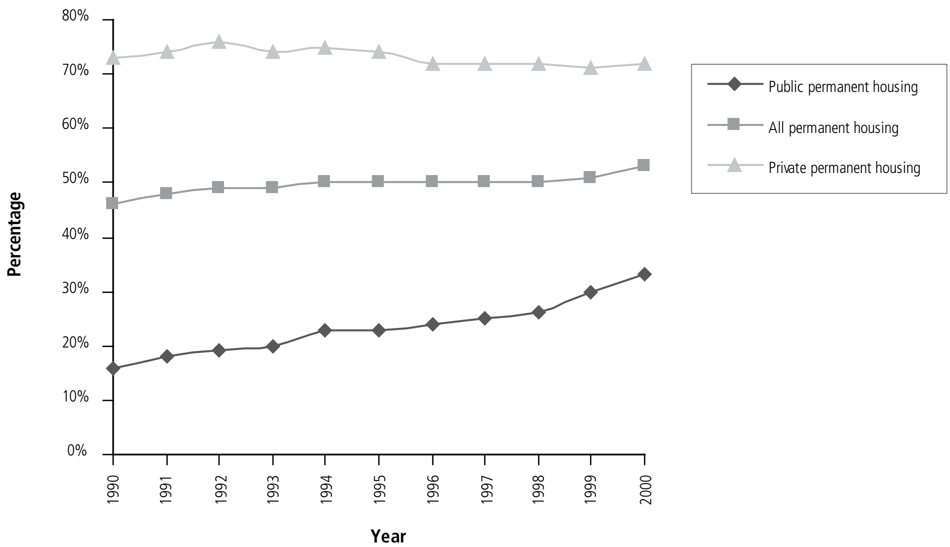
The home ownership rate has steadily increased in the last two decades. It increased from 35 percent in 1983/84 to 55 percent in 2000/01. The home ownership distribution can more clearly indicate the intensification of government intervention in promoting home ownership. In 1983/84, only 3 percent of

FIGURE 6: **Home Ownership Distribution in Public and Private Housing Sectors in Hong Kong**



Source: Housing Department

FIGURE 7: **Home Ownership Rates in Public and Private Sectors in Hong Kong**



Source: Housing Authority

home owners were in the public sector and 32 percent in the private sector. The share of the public sector in total home owners increased to 18 percent in 2000/01(Figure 6).

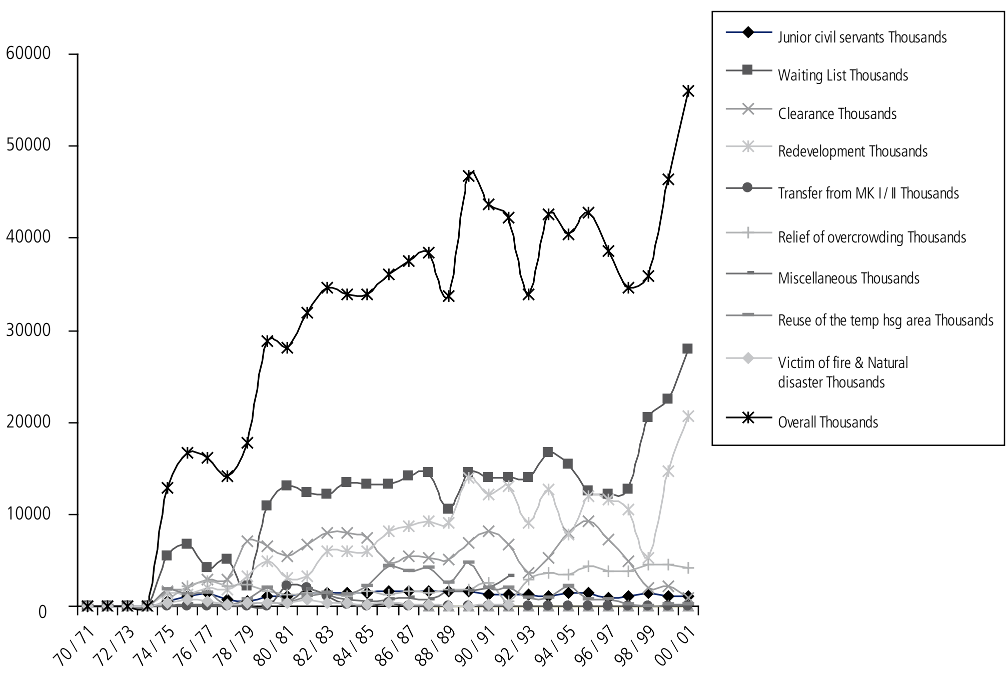
Figure 7 shows that the private housing sector had a stable and high rate of home ownership at around 71-75 percent in the last decade. It slightly decreased from 75 percent in 1994 to 71 percent in 1999 while the public sector showed a steady trend of increase in home ownership rate. Therefore the increasing home ownership rate in the housing sector as a whole is largely due to the government's intervention in promoting home ownership, particularly in the public housing sector (Figure 7). Hong Kong has already transformed from a rental housing dominated society into an owner-occupied housing society.

The Distribution Effect of Government Intervention

The main aim of government intervention is to redistribute real income and reduce inequality in allocation of resources. However, the result of government intervention is often doubtful in its success to achieve policy goals. In contrast, government intervention sometimes led to increasing inequality rather than reducing inequality.

The problem of inequality in housing benefits might be more severe in Hong Kong, for the allocation of public housing was based on different needs and criteria. Figure 8 shows the allocation of public housing in different categories in the last three decades. Most of the allocated public housing units were not through means-tests. Only those allocated through the waiting list were subject to meeting income limit criteria. The late 1980s and early 1990s saw a substantial increase in urban redevelopment. Therefore, housing units allocated through redevelopment alone

FIGURE 8: **Allocation of Public Housing Units in Hong Kong**



Source: Housing Authority Annual Reports, various issues were almost equal to the total number of flats allocated via the waiting list approach. For example, in 1989/90, a total of 46,745 units were allocated, among which 14,000 were allocated for redevelopment, 14,500 for waiting list applicants. Only 31 percent of housing units were allocated through means-tests to waiting list applicants.

After the handover, there is a trend to have more public housing units allocated to waiting list applicants who are subject to means-tests. The number of housing units allocated to waiting list applicants increased from 12,606 in 1997/98 to 20,563 in 1998/99; 22,510 in 1999/2000; 27,908 in 2000/01. More than 50 percent of housing units were still allocated without considering the income criteria of households.

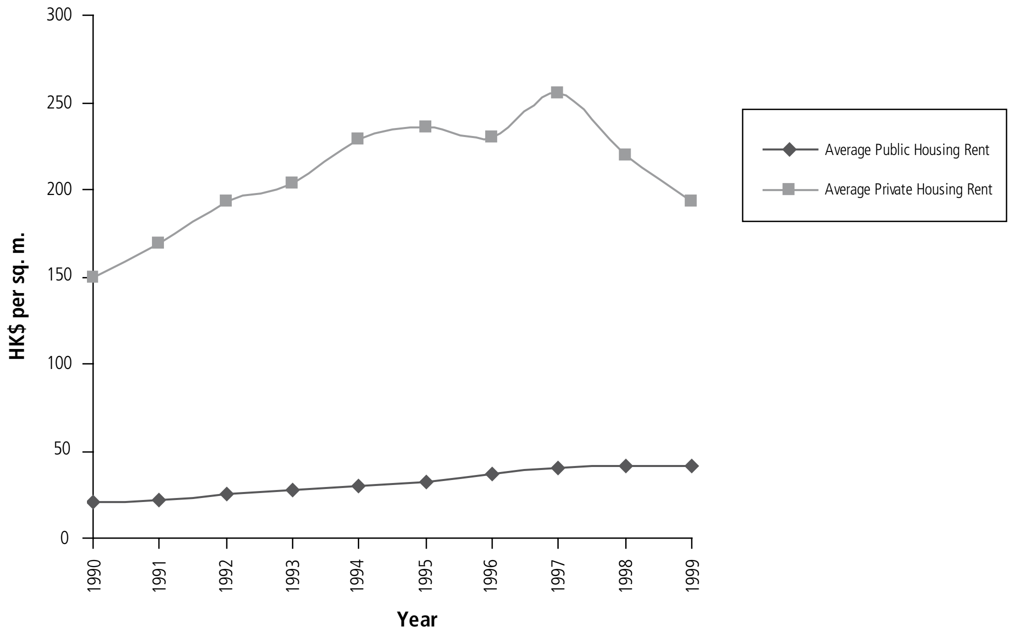
Due to the allocation system, a large number of better-off households enjoy the benefits of public housing. People living in public rental housing are charged about 27-38 percent of market rent. But very often the public housing rent is less than the above proportion (Figure 9). Therefore, households living in public housing can receive substantial benefits. It is particularly unfair for those who live in private housing but with similar income. In these cases, the government intervention in public housing enlarges the inequality.

In order to reduce the inequality and reduce the housing benefit, the government introduced a Housing Subsidy Policy in 1987. It set a subsidy income limit which was defined as twice of the waiting list income limit. If a household's income was beyond the subsidy income limit, the household would be classified as a better off household and was required to pay double rents. Tenants who wish to pay normal rent have to declare their income. Tenants whose income exceeds the subsidy income limit or do not declare their income are subject to pay double rents. In 1992, the policy revised the relationship between income level and rent level. A household with less than two times of the Waiting List Income Limit pays normal rent. A household whose income is 2 – 2.5 times the income limit pays 1.5 times the normal rent. A household with income between 2.5-3 times of the income limit pays 2 times the normal rent. If a household's income is beyond 3 times, it is required to pay 2.5 times the normal rent (Table 2).

The government's rationale is that increasing the rent for better-off tenants can motivate some tenants to switch to the owner-occupied sector through government's subsidy or financial assistance. By promoting subsidized home ownership, the government reduces the inequality of subsidy between tenures. The government introduced four schemes to help better-off tenants to become home owners: (1) Home Ownership Scheme; (2) Home Purchase Loan Scheme; (3) Option to Buy or Rent; (4) Sale of Flats to Sitting Tenants Scheme.

Home Ownership Scheme takes two forms – the Home Ownership Scheme (HOS) and Private Sector Participation Scheme (PSPS). The government is responsible for development, sale and management of HOS flats while for PSPS, the government provides sites for sale to private developers to build flats to sell at fixed prices set by the government (Yeh, 1990). The sale prices of flats are normally 30 percent below market value. But a large discount is allowed when there is a rapid rise of prices in the property to ensure the affordability of HOS/PSPS flats for low middle income households. Mortgages for HOS and PSPS flats are provided by around 50 institutions at favourable interest rates. Purchasers may obtain mortgages of up to 20 years for up to 90% or 95% of flat prices, for private sector and public sector purchasers respectively. Private sector purchasers are not allowed to own property and also subject to household income restrictions. The government sets a quota for sale of HOS/PSPS flats. One third of flats are reserved for private sector applicants and two thirds are reserved for public sector

FIGURE 9: **Rent Difference between Public and Private Housing in Hong Kong**



Sources: Housing Authority; Census and Statistics Department
Note: private housing rent refers to average rent of housing units less than 40 sq m. in Hong Kong Island. Large size housing units' rent is higher.

applicants. By 2000/01, 196,257 HOS flats and 93,083 PSPS flats have been produced.

From 1992 to 1997, the subsidy to HOS/PSPS increased substantially. The average HOS/PSPS sale prices in Hong Kong Island were less than half of the average private housing prices (Figure 10). While the rent multiplier policy for public rental sectors reduced the benefits of public rental tenants, the government shifted its subsidy toward more favouring HOS/PSPS flat purchasers. This induced private renters to buy HOS/PSPS flats. This trend was reflected in the increasing proportion of demands coming from the private sector for HOS/PSPS flats (Table 3).

TABLE 2: **Rent Charge and Income in Public Housing in Hong Kong**

Ratio of Household Income to Waiting List Income Limit	Rent Charged
(2 times or below)	(normal rent)
above 2 times - 2.5 time	1.5 times
above 2.5 times - 3 times	2 times
above 3 times	2.5 times

Source: Housing Authority

Home Purchase Loan Scheme (HPLS) was first introduced in 1988. It provides interest-free loans or monthly mortgage subsidies to assist eligible public tenants or prospective public tenants to buy flats of less than 30 years old in the private sector. Later the scheme extended its eligibility to those in the private sector to buy HOS/PSPS flats. In 2001/2002 the government offered a quota of 10,500 loans for public sector applicants and 6,000 loans for private sector applicants.

Another major initiative for the government to shift the subsidy from the public rental sector to the owner-occupied sector is the Sale of Flats to Sitting Tenants Scheme (SFSTS). The first phase of the Scheme was implemented in 1991. The discount of prices was 10 percent more than that of HOS. The government estimated that about 50% of tenants in the selected blocks would respond positively. However, the response was very low, ranging from 1.5% to 15.3% with an overall average of 7.4%.

TABLE 3: **Public and Private Sector Applicants for HOS/PSPS flats**

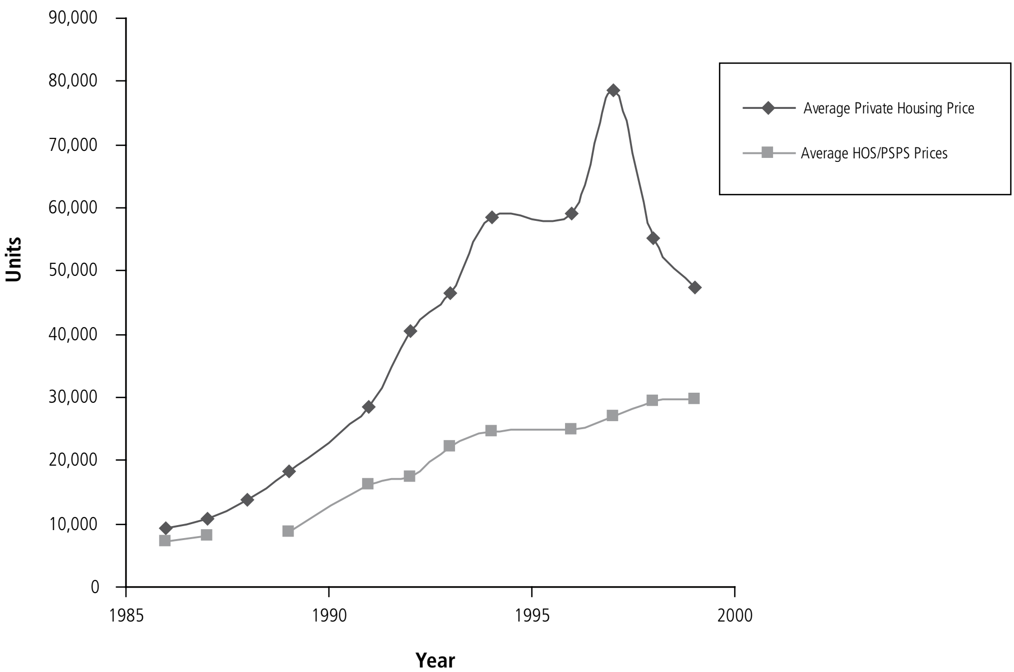
Year	1990/91	1995/96	2000/01
Public Sector Applicants	59 500	41 300	10 800
Private Sector Applicants	85 500	90 300	43 800
Total Applicants	145 000	131 600	54 600

Source: Housing Authority

The Effect of Government Intervention on Housing Market

Government intervention may have little

FIGURE 10: **Housing Price Difference in Private and Public Housing Sectors in Hong Kong**



Source: Housing Authority

impact on the private housing market if the government only aims to serve the low income households. However, in Hong Kong this is not the case. As we show that most of public housing were allocated to people without considering their income levels. Public housing becomes a substitution for private housing. Since the introduction of HOS scheme, government intervention in promoting home ownership has created a substitution effect, particularly for low and middle-low income households. Statistics show that a lot of households who buy private housing and public housing flats have similar purchase power or income level.

In 1998, the government further introduced a Tenant Purchase Scheme which offered more discounts. Flats from 30 housing estates have already been offered for sale. It received a good welcome from public housing tenants. In the first year, 19,807 tenants purchased their flats. In 1999/2000, 33,812 bought their flats and the number of tenants bought their flats rocketed up to 57,868. The selling prices are as low as 22.5 percent of their market value. The government further relaxed the restrictions on the resale of public housing units in 1999. After two years of purchase, buyers can resell their flats back to the government at the original price, between 3-5 years buyers can resell to anyone who is eligible for purchasing public housing. After 5 years, buyers can resell to anyone on the open market. The increase of subsidized sale flats into the open market would reduce the demand for private housing. Before 1990, since most of subsidized sale flats were sold to public tenants or potential public tenants. Therefore its impact on the private housing market was not obvious (Figure 11). Since 1990, public rental housing production has begun to drop dramatically and public owner-occupied housing production overtook or equaled public rental housing production (Figure 12). Most of demands for subsidized sale flats have been from the private sector. Public sector applicants for subsidized sale flats decreased from 59,500 in 1990/91 to 41,300 in 1995/96 and 10,800 in 2000/01. The percentage of applicants from the private sector for subsidized sale flats increased from 59 percent in 1990/91 to 69 percent in 1995/96 and 80 percent in 2000/01. This represents an increasing effect of subsidized sale flats on the demand for private housing. Its impact on the private housing prices becomes more evident. The category of small size flats (less than 40 sq. m.) in the private sector has been hit most severely by the subsidized sale flats. The larger the private flats the smaller the impact the subsidized sale flats have on the private flats. Therefore, the impact of subsidized sale flats on private housing flats decreased in the order of flat sizes. Figure 11 shows the difference of impacts of subsidized sale flats on prices of different sized private flats.

Government intervention in over-promoting home ownership has a certain degree of negative effects on the private market, particularly on low and low middle income housing market. We further find that housing markets are virtually dominated by small and medium-sized flats (Figure 13). Therefore the impact of government intervention in promoting low and middle income home ownership on the overall housing market is significant. In response to the increase of supply in low and low middle income subsidized sale flats, private developers may shift the supply of housing types by reducing flats for low and low middle income (i.e. small size flats) and increasing the supply of flats for middle and high income households.

Conclusions

Hong Kong is a very unique case which has

FIGURE 11: **Housing Price Index in Hong Kong**

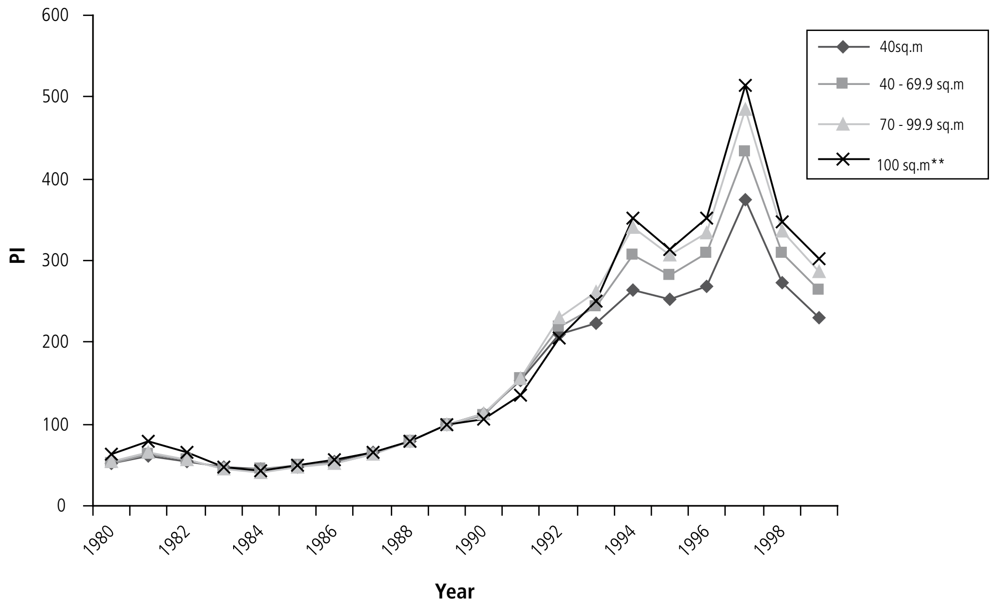


FIGURE 12: **Public Housing Production in Hong Kong**

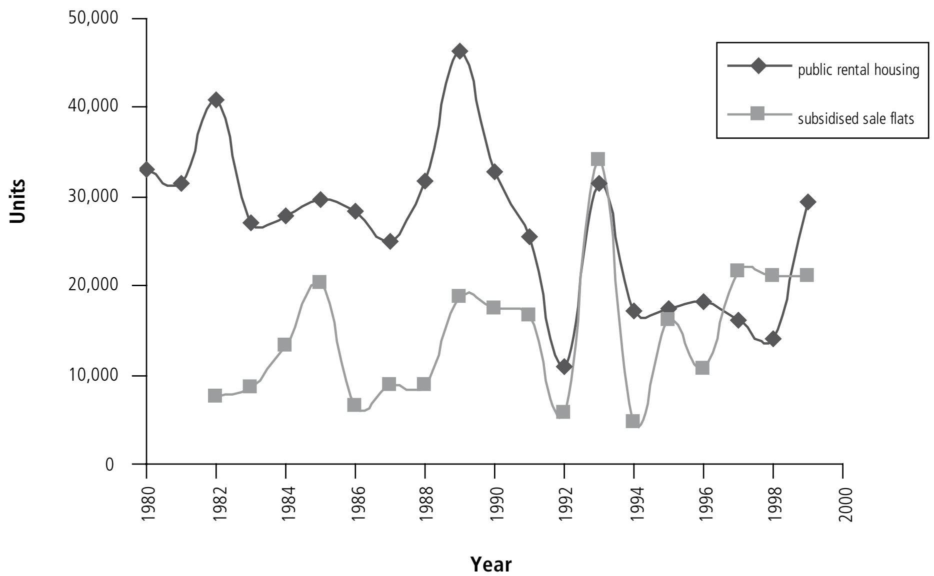
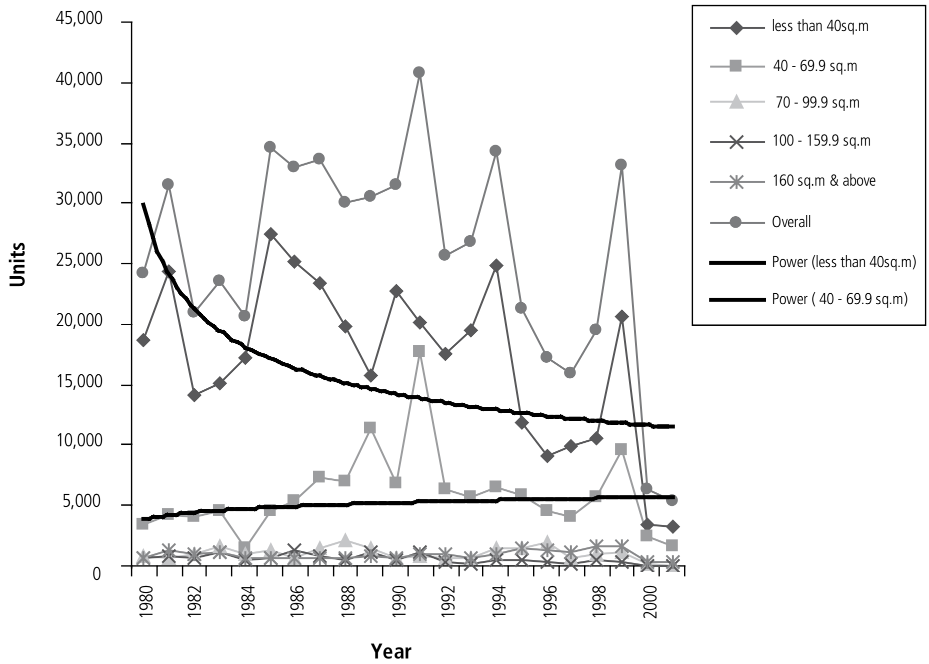


FIGURE 13: **Annual Private Housing Production by Size in Hong Kong**



the freest economy but a highly interventionist housing sector. Government intervention in housing in many economies aims to help low income households who cannot afford housing on the open market. However, government intervention in Hong Kong focuses much on the improvement of urban living environment and it has multi-purposes. Most of public housing initiatives are associated with the squatter clearance and urban redevelopment. Those who benefited from the public housing programmes are those who are affected by the urban development programmes. They are not subject to means-test for enjoying the housing benefits. While only a small part of public housing is allocated to low income households below a certain income limit. Due to the mixture of public housing tenants in terms of income levels, it is more likely that public housing in Hong Kong has more effects on private housing markets.

In the last two decades, the Hong Kong government has extended its intervention. Public housing extended to the owner-occupier sector. The government actively promotes home ownership in the public sector. It is found that different modes of government intervention have different impacts on housing markets. Government intervention in promoting ownership in public sector has more impacts than public rental housing. Because subsidized sale flats are good substitutes for private housing, particularly for small sized housing markets, small sized private housing markets have been affected by government intervention significantly.

Private housing markets are also associated with the degree of government intervention. We measure the degree of government intervention by the extent of regulations, government expenditure, government ownership levels in rental housing and owner-occupied sector. The prices in private housing markets are not very sensitive to government intervention in general regulations and government expenditure. But they are sensitive to government intervention levels in rental housing and owner-occupied housing. Government intervention has changed the tenure structure of the housing sector in Hong Kong. Government intervention in promoting ownership has increased competition and substitution in the owner-occupied sector and therefore has significant impacts on private housing markets. Increased levels of government ownership in owner-occupied housing sector do reduce prices of private housing markets in the same categories.

On the social aspect, the impact of government intervention is the inequity in housing benefit distribution. Many households living in public housing have similar income levels as those in private housing. But those in the public housing sector receive substantial subsidies which cannot be enjoyed by households in the private housing sector. The government has realized the fact that many housing subsidies go to better-off households in rental housing. It introduced differential rent criteria for different income groups in public rental housing in order to reduce inequity. However, the government on the other hand introduced substantial subsidies for owner-occupiers in the public sector. Those can afford to live in public owner-occupier sector are relatively much better-off than those in public rental sector. The subsidies are also larger. For example, for Phase 17A, urban flats' market full value is HK$ 2,202,000 per unit, the government only sells at a price of HK$ 1,211,000. The discount is HK$ 991,000 per unit. The government also offers mortgage benefits to buyers at a value of HK$138,000. Therefore the total subsidies to each buyer are HK$1,073,000.

Sitting astride one of the major shipping lanes of the world, Singapore has adopted

PART III: **ECONOMIC DEVELOPMENT AND HOUSING MARKETS IN HONG KONG AND SINGAPORE**

CHAPTER 4: **ECONOMIC DEVELOPMENT AND HOUSING MARKETS IN SINGAPORE**

export-oriented free-market economic policies that encourage two-way flow of trade and investment (Goh, 1995). By primarily playing the role of a "middleman" between nearby regions of primary production and the industrialized western economies, Singapore's economy has progressed and prospered over the years. The free-market economic policies have developed the small city-state into one of the world's most successful open trading and investment regimes.

For 150 years, Singapore has been the focal point of British political, economic and military interest in Southeast Asia. Founded in 1819, Singapore grew rapidly as an entreport trading center for European trade with East and Southeast Asia (Lim and Chwee, 1971). Due to its proximity to Malaysia, Singapore acted as the "headlink" city for the fertile and productive Malayan hinterland. When the Malayan economy boomed, and the tertiary activities as shipping, finance, commerce and servicing came to be heavily concentrated in Singapore, the latter's economy also prospered.

Up until the 1950's, Singapore was heavily dependent on both foreign economic investments and the Malayan hinterland for its economic progress. During the 1950's, 90% of the Malaysia-Singapore region's total entrepot trade went through the port of Singapore. Both economies became heavily dependent on each other, with a disproportionately developed primary sector in Malaysia, and a disproportionately developed tertiary sector in Singapore (Lee, 1984). When Singapore became a self-governing state in 1959, its economic outlook was very pessimistic due to heavy reliance on trade with its neighbours and their increasing attempts at direct trading (Lim and Chwee, 1971). Entrepot trade, which was the mainstay of the economy and the main impetus to Singapore's economic development was facing an uncertain future. In the late 1950's, Singapore's business community consisted largely of small merchants and financiers. Manufacturing was nascent and fragmented, comprising only 12% of gross domestic product (GDP) in 1960. Most of the local manufacturing industries were small family-based workshops, associated with the retail trade.

From 1960 to 1964, Singapore was still highly dependent on entrepot trade as it only had a very small manufacturing base with little industrial knowledge and domestic capital. During that time, the unemployment problem and housing shortage situation among the population of 1.6 million were added challenges faced by the government. To address these issues, the Economic

Development Board (EDB) was established in August 1961 (Ministry of Trade and Industry, 2004) and the Housing and Development Board (HDB) was formed in February 1960 (Housing and Development Board, 2004). Together the two agencies started to face some of the challenges facing the country. Prior to Singapore's independence in 1965, it relied heavily on Malaysia's vast hinterland, and started to embark on an industrialization policy based on an import substitution strategy (Goh, 1972 and 1995). As some industries required a long time in getting started and because there was little expansion in entrepot trade earnings during the 1960's, the substantial public housing program launched by the HDB in 1960 helped to sustain economic growth during this period. The gross domestic product (GDP) growth averaged about 5.1% per annum from 1960 to 1964. With the development of the Jurong Industrial Estate in 1961, the manufacturing sector's share of the GDP grew from 11% in 1960 to 14% in 1964 (Ministry of Trade and Industry, 2004).

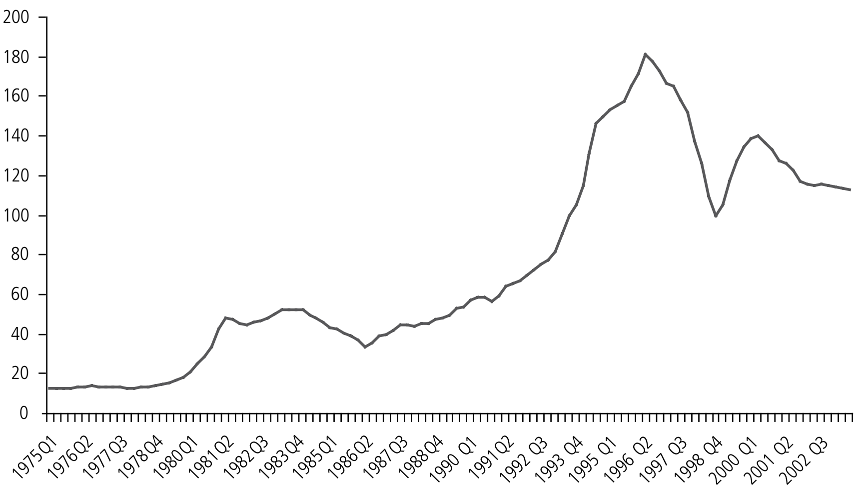
Separation from Malaysia in 1965 as well as the withdrawal of the British military base in 1968 instead of resulting in a potential economic crisis, Singapore's GDP increased at a compound annual rate of 12.3% in the post-Malaysia period (Lim and Chwee, 1971). Trade, industry and tourism provided the main thrust to Singapore's economic growth at that time (Lee, 1967; Goh, 1972). In view of the above-mentioned events, Singapore abandoned the import substitution strategy for export-led industrialization (Goh, 1972 and 1995). Singapore then opened up its economy to foreign investments and leveraged on multi-national corporations (MNCs) to gain access to technologies, markets and market experience. A pro-business environment was subsequently established. Meanwhile, the massive public housing program was also in progress producing about 10,000 units per year. As demand for public housing during this time was mainly from resettlement and slum clearance, and the access and allocation criteria were very stringent, the performance of the economy did not have significant impacts on the public housing market.

From 1965 to 1978, the economic growth rate averaged 10% p.a. and the unemployment rate fell to 3.6% in 1978. During this period, the manufacturing sector's share of GDP had also expanded from 14% in 1965 to 24% in 1978. The main impetus for economic expansion during the 1960's and 1970's stemmed from external as well as domestic sources. For instance, the local hotel industry, ship-building and ship-repairing industry, as well as oil prospecting activities in Southeast Asian waters resulted in extraordinary economic performance domestically (Lim and Chwee, 1971, Goh, 1972). In addition, the sustained boom among the rich nations of the United States, Europe and Japan also helped to boost Singapore's economy. Furthermore, as a consequence of the escalation of the Vietnam War in 1965-1969, Singapore's sale of petroleum products to South Vietnam increased tremendously, thus arresting the decline of Singapore's entrepot trade during this period. The Vietnam War had also brought more business and revenue for Singapore's ship-repairing and equipment-repairing workshops (Lim and Chwee, 1971; Goh, 1972). The anti-Chinese policies in Indonesia and Philippines, racial riots in Malaysia as well as political disturbances in Hong Kong caused the flight of ethnic Chinese capital and enterprise from these areas to Singapore. This is because besides having an ideal geographical location, Singapore also has a politically stable government with excellent infrastructure for communications over sea, air and land, a reliable banking system as well as skilled workers (Lee, 1971). The strong growth in the economy had not only eradicated the unemployment problem, it had enhanced households' affordability with increased wages. Together with the government's policy on public homeownership set up in 1964 and the usage of CPF for home purchase with effect from 1968, the demand for public housing had gradually increased in the late 1960's and early 1970's with about 20,000 units being built per year.

Double-digit growth rates continued into the 1970's until the oil crisis and world recession of 1974 to 1976 disrupted Singapore's Economic Strategy Program (Ng, 1982). The five basic elements in this program, which had been identified for special attention and implementation in the public sector, included manpower, science and technology, communication, tourism and services. The Economic Strategy Program had made Singapore's economy more diversified, with a strong infrastructure to develop financial, telecommunication, port and air services. In the 1970's, the manufacturing sector remained labor-intensive, and the government had to liberalize its immigration policy to attract skills and talent, as well as expand professional, technical and industrial training. However, by the late 1970's, industrial restructuring had become inevitable due to the rapid economic growth, which had created a labor shortage, leading to increasing labor cost in Singapore. In response to the increasing competition from lower-cost countries in South-east Asia, Singapore adjusted its economic strategy from focusing on labor-intensive, low value added activities to creating more capital driven and higher value added industries (Ng, 1982). Throughout the late 1970's and early 1980's, the economy achieved about 7.3% growth per annum on average. The strong economic performance as well as the popularity of the resale public housing market set up in 1971 had resulted in a property boom in the late 1970's and early 1980's where the demand for new public housing rose up to as high as 30,000 per annum. The private housing price index was also observed to be increasing exponentially during this period, see Figure 1.

In the early 1980's, amidst a growing economy and a tight labor market, Singapore maintained its industrial restructuring efforts (Lee, 1984) and embarked on a three-year wage correction policy aimed at upgrading the industrial structure. However, this wage

FIGURE 1: **Price Index of the Private Housing Market (1975-2002)**

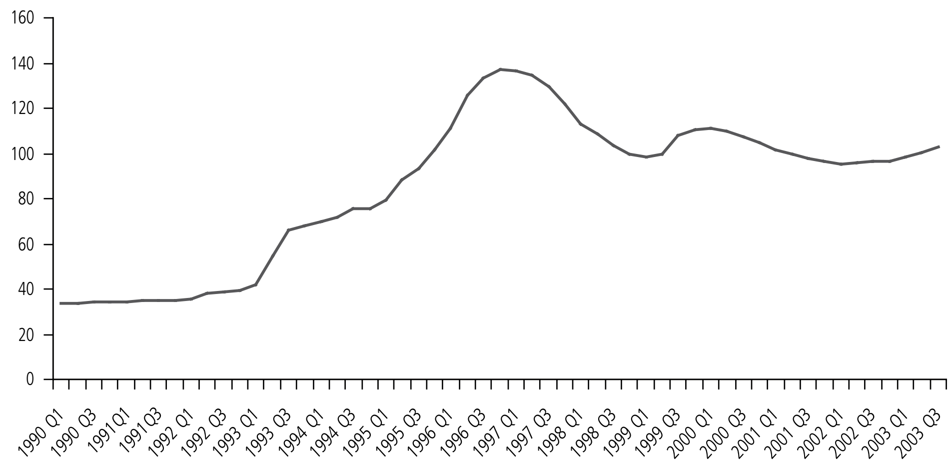


Sources: DataStream (1975-2002), Singapore Land Registry, Singapore.

correction policy caused wages to rise sharply, and coinciding with a weak US economy following the second oil crisis in the early 1980's, Singapore experienced its first post-independence recession in 1985 with an economic contraction of 1.6%. To manage the 1985 recession, several major cost-cutting measures were implemented, such as the reduction of the employer's CPF contribution rate, decrease in corporate tax as well as adoption of national wage restraint policy. During this recession, the government had also expanded public housing production as part of its strategy to increase public expenditure to boost the economy. The number of public housing completed in the mid 1980's reached a record high of 70,000 units. The cost cutting measures, increase in housing expenditure together with an improvement in external demand in the second half of the 1980's, helped the Singapore economy to recover such that it grew by 2.3% in 1986, 9.7% in 1987 and 11% in 1988.

The economic crisis in the 1980s exposed structural problems within the Singapore economy, which had been masked by strong economic growth (Lee, 1984). The strategic focus during the next phase of economic development from 1986 to 1997 was therefore to address these issues and bring Singapore's services and capabilities to world-class levels. As part of the domestic industrial strategy, cluster development was initiated whereby mutually supporting industries in both manufacturing and services could be located in close proximity. For instance, the supporting industries for manufacturing include electronics, petrochemicals, and precision engineering. As for services, the supporting activities are financial services, international trading and information technology. In a larger context, to take advantage of the economic boom in the countries within the Southeast Asian region, Singapore has expanded its economy to tap on the markets and resources of regional economies, as well as to diversify its dependence on the economies of developed nations (Lee, 1984). This regionalisation strategy has also helped Singapore to strengthen its linkages to the MNCs through co-investment in the region. During this period, the GDP averaged 8.6% per annum, with the financial and business sectors in total GDP increasing from 21% in 1996 to 27% in 1997. This period of

FIGURE 2: **Price Index of the Resale Public Housing Market (1990-2003)**



Sources: Housing and Development Board's website (http://www.hdb.gov.sg) (1990-2003), Singapore.

high economic growth had fuelled another property boom in the mid 1990's where both the public and private housing markets were observed to be experiencing increased demand and high prices (Housing and Development Board, 2004; Urban Redevelopment Authority, 2004) see Figures 1 and 2.

The Asian financial crisis, which started with the devaluation of the Thai Baht in July 1997 created enormous economic challenges for many countries in Asia including Singapore. Although Singapore's financial and economic fundamentals were basically sound, the rapidly deteriorating external environment adversely affected its economy due to close linkages with the regional economies. In the aftermath of this crisis, the Singapore economy contracted 0.9% in 1998, after achieving 8.6% growth in 1997 (Ministry of Trade and Industry, 2004). Land and housing prices also fell drastically in Singapore as well as in many countries across the Southeast Asian region. To address the effects of the 1997 economic crisis, the Singapore government introduced an off-budget financing package in June 1998 but this effort failed to arrest the slide in the real sector of the economy, which registered decelerating quarterly GDP growth rates as well as rising unemployment. As a result, another cost-reduction package worth S$10.5 billion was implemented in November 1998, which was aimed at reducing business costs by 15%. The main initiatives under this package included a 10% point reduction in the employers' CPF contribution rate, a wage cut of 5% to 8%, a 10% corporate tax rebate for 1999, and further decreases in government rates and fees. Despite these efforts by the Singapore government to boost the real sector of the economy, consumer confidence remained poor, and prices of public and private housing continued to trend downwards until the end of 1999, see Figures 22 and 23.

Emerging from the 1997 economic crisis, Singapore aims to become an entrepreurial, diversified and globally competitive knowledge economy with a sustainable economic growth rate of 3% to 5% per annum over the medium term. The effects of the 1997 economic crisis highlighted that affordable land prices, business costs and competitiveness are essential elements for economic growth (Goh, 1998). Although the Singapore economy started to expand again in 2000, since then, there was yet another economic recession in 2001. The synchronized downturns in the major developed economies as well as the global electronics industry have led to a sharp deceleration in global growth. As a result, the Singapore economy fell by 1.9%, down from 9.7% growth in 2000 (Ministry of Trade and Industry, 2004). As for the housing markets, after a slight increase in demand and prices of private and public housing in 2000, the price indices of both markets fell again in 2001 and have remained low compared to the peak in the mid 1990's see Figures 1 and 2.

In July and October 2001, the Singapore government initiated another two sets of off-budget measures (Ministry of Trade and Industry, 2004) to try and boost the economy. In the July 2001 off-budget policy, the broad objectives were to reduce business costs through rental, utilities and property tax rebates, to strengthen the economic infrastructure through earlier construction of development projects, to provide more funds for skill training and local enterprises, as well as to stabilize specific sectors of the economy, in particular the property market, by suspending government land sales and deferring stamp duty on uncompleted properties. As the July 2001 measures were unable to stimulate the economy, in October 2001, a more substantial off-budget initiative of S$11.3 billion was implemented. The key features of the October 2001 package were tax rebates and fee reductions for businesses and households, increase in spending on infrastructure, New Singapore Shares (subsidies in the form of share options given to the population to tie over the recession), as well as employment assistance programs. Together, the two off-budget packages amounted to 8.4% of GDP, and were estimated to result in a government budget deficit of S$4 billion in 2001.

In a further effort to boost the real sector of the economy, in 2001, the Singapore government abolished the capital gains tax on properties that are sold within the first three years of ownership as well as allowed commercial banks to extend Singapore dollar housing loans to foreigners. Although this policy revision was widely welcome, due to the poor economic climate where most properties were already in negative equity, and in view of the depressed economies worldwide, these measures had little impact on the Singapore property market. The uncertainty in the global economic situation as well as Singapore's poor economic performance since the Asian financial crisis have resulted in low consumer confidence and a "buyers market" for both the public and private housing sectors, driving prices further downwards in recent years.

Overall, the Singapore economy and housing markets have made tremendous progress since its independence in 1965. The inflows of foreign investment have created Singapore into a business and financial center as well as sustained its economic growth but increasingly competitors in the region are similarly striving to attract investments and vying to become business hubs. The private and public housing markets in Singapore have also developed and expanded over the years to provide shelter to a population, which consists of mainly homeowners. From the empirical data, it is clear that Singapore's economic performance has direct impacts on the housing markets, and vice versa.

Hong Kong has been experiencing rapid economic growth since World War II. During

CHAPTER 5: ECONOMIC DEVELOPMENT AND HOUSING MARKETS IN HONG KONG

the period of 1960-1980, GDP grew in real terms at an annual rate of 9.7% and GDP per capital at 7 %. Total export grew in real terms at 11 % annually. Hong Kong's growth outperformed that of all other Asian NIEs (Cheng, 1982; Castells et al, 1990). After more than 150 years of colonial administration, the British relinquished control of Hong Kong in July, 1997. The 'One Country, Two Systems' concept has been successfully implemented. Hong Kong people now have a better understanding of the motherland and have affirmed their new identity with the reunification. With the commitment of Hong Kong people and the support of the Central Government, Hong Kong remains an open, free and vibrant society.

Recent changes in the Asia such as Asian Financial Crisis has put greatest challenges to Hong Kong. Asset prices have tumbled to half of what they were at the peak of the market at end-1997. The stock market has tested new highs and lows. Consumer prices have declined for more than three years. Unemployment has reached record levels. At the same time, Hong Kong's economy has been undergoing difficult restructuring. This will go on for some time to come but Hong Kong begins to see the start of a slow, modest recovery (HK government, 2002). It challenges traditional wisdom of economic development. In order to assess housing policy in the process of economic development, we need to understand the economic development chronologically (Castells, et al, 1990).

Early Economic Development

For the first century after the colony's establishment in 1842, Hong Kong was a flourishing entrepot. Imports came from China (38% in 1939) and other countries outside Britain and its Dominions (48%), while exports mainly went to those other countries (66%), China (15%) and the British Dominions (14%). Britain itself was not a major trading partner. However, the business in Hong Kong was dominated by the British interests. For example, Butterfield, Swire and Jardine dominated the shipping industry, Whampoa and Wheelock in shipbuilding and repairs. The Hong Kong Electric Company monopolized the electric supply and the banking sector was virtually all British such as Hongkong and Shanghai Bank, Standard Chartered Bank. Hong Kong and Yaumatei Ferries and the Star Ferry Company controlled the water transport. These non-Chinese corporations were all relatively large, far outperformed the Chinese counterparts in scale and importance. At this stage, the main business was trade, the manufacturing sector was not in place (Carney and Davies, 2000).

Growth of Manufacturing Industries

After World War II in 1945 and Civil War in 1950, Hong Kong experienced a significant growth of population. By 1953, it had a population of 2.4 million largely uneducated refugees. Hong Kong did not have many development choices with such a high sudden population influx from Mainland. It was not feasible to engage them in agricultural activities since most of Hong Kong land was hilly and lacked cultivated value. Mineral resources were negligible. Because of the international embargo to China, the entrepot trade had been largely limited. Manufacturing industry was only feasible option for the cheap labour pool. The industries concentrated in a small number of sectors which did not need high technology and large capital. Therefore Hong Kong industries mainly are in the following sectors: textiles; food, beverage and tobacco; wearing apparel; leather, wood and cork products; paper and printing; plastics; basic metals; and electronics. Textiles and apparel accounted for more than half of the manufacturing employment in 1970, followed by plastics products (13%) and electronic products (9%) (Carney and Davies, 2000; GIC, 2002).

The industries enjoyed rapid growth. In 1951, there were 1,778 industrial establishments and 93,837 employees. The numbers of industrial establishments and employees respectively increased to 17,115 and 118,568 in 1971; and 37,568 and 593,494 in 1977; 44,903 and 863,334 in 1978; 48,324 and 996,121 in 1981. By the end of 1970s, Hong Kong was already an important centre of manufacturing industry. The industry grew very rapidly through establishing new small industrial firms rather than expanding the existing industrial establishments (Riedel, 1974). They were mainly labour intensive and small operations owned by Chinese families. Foreign firms only represented 9.8% of the total manufacturing employment and just 10.9% of exports from the manufacturing sector (Castells, et al, 1990). The average number of employees per industrial establishment was respectively 53 in 1951; 7 in 1971; 16 in 1977; 21 in 1981. There was no sign to show the increasing scale of the economy. The average industrial scale of each establishment was much smaller in 1971 than in 1951. Even in 1981, the average employees of each establishment were still less than half of that in 1951.

The fast growth of the manufacturing firms contributed to the flexibility of the industry. The manufacturing industry had low levels of capitalization. They were financed mainly through personal savings. Low technology activities were common in the industry, which had simple production stage. They were merchant manufacturers (Carney and Davies, 2000). As the time goes, the sectors of the manufacturing industry had shifted. The 1950s and 1960s were dominated by textile industry, and the 1970s saw garment and plastics industries and more recently the electronics and toy industries. After the reunion of Hong Kong with China, the new government emphasizes the digital technology and medicines. Since the late 1970s, China's open door policy brought new opportunities for Hong Kong and also provided a chance for developing into a global city.

Hong Kong as an International Financial Centre

Since 1970s, Hong Kong has gradually transformed itself into one of the international financial centres in the world. Hong Kong is now the second largest stock market in Asia after Japan and the world's 7th largest foreign exchange market and 8th largest banking centre in the terms of external transactions (Willis, 1999). This contributes to the excellent building up of the finance system.

Hong Kong has a robust monetary system to maintain monetary stability in the territory. It was with this mandate that the Hong Kong Monetary Authority (HKMA) was set up in 1993 by merging the Office of the Commissioner of Banking and the Office of the Exchange Fund. The primary monetary objective of HKMA is to maintain exchange rate stability under the linked exchange rate system. It promotes the safety and stability of the banking system and the efficiency, integrity and development of the financial system, particularly payment and settlement arrangements (HKG, 2003).

Hong Kong maintains a three-tier system of deposit-taking institutions, comprising licensed banks, restricted license bank (RLBs) and deposit-taking companies (DTCs). Only licensed banks may operate current and savings accounts and accept deposits of any size and maturity. Subject to various restrictions, RLBs and DTCs are two categories of institutions which provide an opportunity for overseas banks not qualified for a full banking license to conduct wholesale and investment banking business in Hong Kong. Hong Kong Monetary Authority conforms with international supervisory standards, e.g. all authorized institutions are required to comply with a minimum liquidity ratio of 25%, locally incorporated institutions have to comply with a minimum capital adequacy ratio of 8% and the HKMA may raise the ratio to 12% in case of licensed banks and 16% in the case of RLBs or DTCs. At present, the minimum ratio for locally incorporated banks is 10%. At end-December 2002, there were 133 licensed banks, 46 RLBs, and 45 DTCs in Hong Kong. In addition, there were also 94 representative offices of foreign banks (ibid.).

The Hong Kong Exchanges and Clearing Limited (HKEx) operates a stock exchange, a futures exchange and performs clearing and settlement functions. The stock market of Hong Kong provides a wide variety of products ranging from ordinary shares to options, warrants, unit trusts and debt securities. A second market, namely the Growth Enterprise Market (GEM) was established to provide an alternative fund raising channel for emerging growth companies.

For the futures market, a total of 11 futures and option products, including futures and options contracts on indices and interest rates and stock futures, were traded. Hong Kong's regulatory framework for the securities and futures market is on par with prevailing international standards and aims to achieve a fair, transparent and efficient market place. There are 3 tiers of regulation. The first tier comprises the front-line operator of the market, i.e. the HK exchange through promulgation and enforcement of rules. The Securities and Futures Commission, being the statutory regulator overseeing the market, is the second tier. The final tier is the Government which deals with policy and legislative matters to ensure the accomplishment of the ultimate policy objective to maintain and further develop the status of Hong Kong as an international financial center.

The Globalization Process

In the 1980s, Hong Kong economy experienced a period of uncertainty. The increasing protectionism in developed countries threatened the manufacturing exports. The rapid economic development at the same time had turned Hong Kong into a high income city which increased the production cost and reduced the price advantages of Hong Kong manufactured goods. The real estate boom and speculation triggered inflation and destablised the currency. The handover of Hong Kong from Britain to China also cast uncertainty about the political future of the territory (Castells, et al, 1990). The Hong Kong government recognized the importance of adjusting the economic structure and sought to diversify the economy. It calls to move away from merely low price products to increase the high value-added industrial products. The government moved from “positive non-intervention” towards “minimum intervention with maximum support”, i.e, from non-action to create a good business environment. To encourage foreign investment and Hong Kong has been negotiating and concluding its own Investment Promotion and Protection Agreements (IPPAs). The main features of an IPPA provide for fair treatment for foreign investors, compensation if their investments are expropriated and free transfer of investments and returns. Hong Kong has signed IPPAs with economies such as Australia, France, Germany, Japan, Korea, the UK etc.

The Government actively promotes innovation and technology development and regards them as drivers underpinning Hong Kong's future economic development. The Innovation and Technology Commission has been set up as part of the Government's efforts in strengthening its institutional framework to promote innovation and technology, It aims to enhance Hong Kong's technological infrastructure to facilitate development of innovation and technology activities. The Government also establishes a Science and Technology Park and Cyberport.

These are major infra-structural development with the aim to create a cluster of information technology and information services companies as well as a critical mass of professional talents in Hong Kong in the shortest possible time. The Cyberport provides over 110,000 m^2 of office space to accommodate over 100 companies. These companies will bring to the Cyberport capital and expertise and they make use of the world-class infrastructure at the Cyberport to create and develop IT applications, information services and content creation (HKG 2003b).

The Hong Kong Science Park & Technology Parks is established to bring the world-class technology and the most highly skilled workforce together in a purpose built environment so as to create cooperative, clustering and synergy effects. The Parks are designed to accommodate companies of all sizes and stages of development and to promote interaction and innovation on both local and global basis (HKG, 2003c).

As part of the efforts to promote Hong Kong as an international center of trade, commerce, finance and communications, Hong Kong has been taking an active role in international and regional economic and trade cooperation. The Basic Law guarantees full autonomy of Hong Kong in the conduct of its external commercial relations and provides for Hong Kong's participation in these international organizations beyond 1997. Being the world's 10th largest trading entity and the 5th largest in the Asia-Pacific region (Willies, 1999), Hong Kong actively plays its international role.

Hong Kong tries to change the business culture which is more attractive to international business and business in general. The setting up of the Helping Business Programme is to meet this aim to secure a friendly environment that enables the business sector to develop and exploit opportunities by

- Cutting red tape and nurturing a helping business culture within the Government;
- Eliminating over-regulation and fostering better regulations to reduce the cost of compliance to the business sector and the community at large;
- Transferring services out of the public sector to the private sector where appropriate market conditions prevail; and
- Improving existing services and introducing new services in support of the business sector.

Dynamics of Hong Kong

Hong Kong is now regarded the freest economy in the world. It is full of attractions for business and life. Hong Kong is the most concentrated city for international firms in the Asia-Pacific. More than one in three of the multinational firms active in the Asia-Pacific have chosen Hong Kong as their regional headquarters for the Asia-Pacific, and no other centre in the region can match this share. Currently there are more than 3,200 regional headquarters and regional offices of multinational firms in Hong Kong. Multinational firms focus their highest value-added activities in Hong Kong. Multinational firms choose Hong Kong for regional corporate coordination and central management functions (including regional strategy formulation), and sales, marketing and customer service, among other activities. This mirrors the behaviour of Hong Kong firms, which have centralised their highest-value activities in Hong Kong while decentralising lower-value activities into the Chinese mainland and elsewhere in Asia. These high value-added corporate activities create the most demand for professional services. Because the largest multinational client base is here, business services are of a depth and breadth unmatched in the region. Roughly half of Hong Kong's workforce is in knowledge-intensive activities (HKG, 2001).

Hong Kong is dominated by private firms. This private sector is unique in the Asia-Pacific for its entrepreneurial spirit and transnational expertise. It combines well-established firms with vibrant entrepreneurial companies. Since 1970s, the good environment and entrepreneurship have nurtured the development of private firms. Hong Kong is now home to many very large local firms, including banks, conglomerates, property and development firms. Hong Kong is also home to 300,000 privately owned SMEs that are highly transnational in their operations (HKG, 2001) and have excellent knowledge and experience in the international economic arena.

Hong Kong has emerged as the business capital for overseas Chinese business communities spread across the Asia-Pacific. Firms use Hong Kong as a key business hub for coordinating dispersed operations in Asia-Pacific. It is often their first international location, their primary locus for tapping international markets, their centre for managing investment into the Chinese mainland and their primary base of foreign direct investment elsewhere. Hong Kong serves as a bridge for firms' investment and expansion strategies between West and East. Mainland Chinese companies have a large and growing presence in Hong Kong (HKG, 2001). They use Hong Kong as a hotspot for foreign investment.

Changes of Economy in Hong Kong

Hong Kong had experienced a high inflation period of more than one decade up to 1998. Since China's open door policy in 1978, Hong Kong manufacturers have moved their low value-added operations into China, leaving higher value-added processes, such as sourcing, merchandizing, marketing and design in Hong Kong. These changes increased the re-export activities as well as services to support these activities. It helped Hong Kong to rapidly restructure itself to become a service-oriented economy which is reflected in the massive decrease of employment in the manufacturing sector. Wealth brought by China's open door boosted demand for consumption and large scale of emigrants affected the services sector. Table 1 shows that a large proportion of emigrants were administrative professionals.

TABLE 1: **Emigrants from Hong Kong (1990 to 1994, in per cent)**

	1990	1991	1992	1993	1994
Proportion with a University degree	15	17	15	15	14
Proportion of total emigrants who are "Managers and administrators, professional and associate professional" workers	34	35	35	35	35
Proportion of working emigrants who fall into the above category	66	72	69	71	69

Source: Berliner Institut für Vergleichende Sozialforschung

This pushed up the salaries in the services sector. The above factors contributed to the inflation (Liu, 1998).

Hong Kong is an international city. Any change in the external environment has a direct impact on its social and economic situation. The financial turmoil has dealt a hard blow to Hong Kong but we have been able to weather this storm (Tong, 1998). A downturn in the economy after the Asian financial crisis, there are stiff competitions for the best marginal value offered by products. It intensifies the deflationary pressure. The public seeks the government for further relief (So, undated). Asian financial crisis began in July 1997, by the end of January 1998, a number of Asian currencies had depreciated substantially to the US dollar, the Indonesian rupiah by 79%, the Thai baht by 51%, the Korean won by 42%, the Malaysian ringgit by 41% and Singapore dollar by 14%. While Hong Kong dollar remained pegged to the US dollar and the exchange rate remained at 7.75 to 1 US dollar the cost of Hong Kong business rose rapidly. Hong Kong lost competitiveness to its neighbours in goods and services. The demand for goods and services decreased sharply. Meanwhile the high cost brought down profits. Therefore the high cost can not sustain business. However, Hong Kong is a free market which quickly adjusts the cost. Residential property prices fell by more than 50% in one year. Hang Seng Index fell by 60% from 16,673 in August 1997 to 6,600 in August 1998 (Liu, 1998).

Housing Markets in Hong Kong

Hong Kong has experienced fast growth over the last four decades. It has built up strong competitiveness in manufacturing exports, which is often contributing to the flexibility of Hong Kong people and its approaches and particularly the important role of small and medium sized firms and its links with China providing Hong Kong large capital, migrants and natural resources. They allow Hong Kong to have low production costs and boost its manufacturing exports (Castells, et al, 1990). Population growth and economic development played an important role for increasing demand for housing.

Since the end of World War II, Hong Kong has experienced a rapid rate of urban population growth caused both by a high rate of natural increase, and large-scale immigration. The population was 600,000 in 1945 and increased by 50% to 900,000 within just one year. In 1947, it reached 1.4 million and had risen to more than 2.5 million by 1957, and to 6.2 million by 1996. The end of World War II in 1945 did not bring peace to China. The civil war caused another massive wave of immigration from China to Hong Kong. The annual number of immigrants was respectively 486,000 in 1946, 371,000 in 1947, 166,000 in 1948 and 252,000 in 1949. This heavy flow of immigrants had pushed the total population to 2 million in 1949. The population growth in the decade from 1951 to 1961 continued to be very rapid. This decade saw 57.5% increase in Hong Kong's population with a net increase of 1,160,000 people. The annual growth rate was 4.7%. Although the population growth has slowed down since 1961, its average annual growth rate maintains at 2%. Between 1961 and 1999, the population increase was 3,845,152 which pushed the total population to 6,974,800 in 1999. After the smooth transfer of sovereignty to China in 1997, and the Special Administrative Region government's successful handling of the impact of Asian Financial Crisis in 1998, Hong Kong continues to enjoy its prosperity, which had attracted early emigrants back to Hong Kong from foreign countries. In 1999, the Hong Kong High Court's interpretation of the right of abode for Hong Kong citizens' mainland-born children results that an estimated 1.7 million mainland Chinese will qualify for the right of abode in Hong Kong. This may cause another large influx of immigrants from mainland China (Zhang, 2000).

The GDP growth increased from 15,599 million US dollars in 1977 to 159,566 million US dollars in 2001. The median household income doubled in the period of 10 years in the 1990s. The combination of population and increasing income pushed the demand for housing. The market responded with increasing supply of housing. It increased very rapidly in 1980 and 1981 and slightly slowed down in 1982, 1983, 1984 and 1985 because of the uncertainty over the future of Hong Kong. The 1984 declaration ceased the uncertainty and boosted people's confidence about Hong Kong's future. The supply climbed up from 1986 to 1988. The next boom was 1992 and 1994 and 1998. Housing prices continue to increase with some fluctuations. The main reason for such high prices has been land-supply policy pursued by the government in the last several decades. All new land before being released into the market belongs to the government. The supply of new land had been constrained each year. With booming commercial activities and a steady 2-3 percent annual increase in population, the land constraints were very obvious. Prices skyrocketed (Li, 1998).

At the same time, in the short term, demand for housing seems to be sensitive to prices. This is particularly so in Hong Kong, where the housing market is extraordinarily liquid. It is a popular investment vehicle, much more so than in other places, also makes demand sensitive to prices. However, the demand for housing in Hong Kong is not as sensitive as it is elsewhere to interest rates, or the financing cost. Because periods of strong demand for housing in the past have coincided with periods of increasing interest rates and not its opposition.

On the supply side, and given that it takes time to build housing, the short-term elasticity would be quite low. In Hong Kong, where land is scarce and land production takes time, and housing often are in forms of high-rise flats, the time lag for supply to catch up with demand is quite long. The situation is further complicated by land supply constraints (Yam, 2003).

The high housing cost increases the business cost in Hong Kong. High prices and wages are affecting Hong Kong's competition. Firms find it too expensive to hire expatriates to work in Hong Kong. A midlevel office manager costs about US$65,000 a year in salary and fringes. A professor costs at least US$250,000, including salary and benefits. Local construction companies find it too expensive to hire local workers and are now clamoring for imported labor. The main cause of high wages is inflated housing and real estate prices (Li, 1998). The Asian financial crisis made Hong Kong more costly to do business and the market adjusted its high cost to a lower level. The most affected sector is housing and real estate, which started a five year long recession of the housing market. A long, steep fall (66%) in residential value has wiped out the savings of a generation of homeowners (New York Times, 15 August 2003). The instability of housing prices bring risks of all types. The challenge is in the policy response. Do we leave the market alone as much as possible and learn to live with and manage the risks, or should we take measures positively to dampen the explosive and undesirable consequences? The undesirable consequences of the sharp downward adjustment in housing prices over the past five years have proven to be quite damaging to the economy, and have to some extent undermined social and financial stability (Yam, 2003). On the other hand, this justifies the government's intervention in the housing markets.

CHAPTER 6: **COMPARATIVE DISCUSSION OF HOUSING MARKETS IN HONG KONG AND SINGAPORE**

This chapter provides a qualitative comparison of the dynamics of the housing systems as well as the impact of housing policies on the public and private housing markets in Singapore and Hong Kong. The two cities face similar considerations such as scarce land resources on one hand, and a high demand for housing on the other. Although the respective governments' approaches to the housing issues are similar in certain aspects, there also exist some differences with regards to the types of policies implemented as well as the degree of intervention. As a result, the housing success achieved by both countries reflects distinct variations in terms of scope and emphasis.

Public Housing Market

The success of the public housing program in Singapore and Hong Kong has been largely facilitated by the fact that a large proportion of the country's land resources are under the government's control. In Hong Kong, the government monopolizes almost all the urban land except for Saint John Cathedral, which is the only freehold property in Hong Kong. In Singapore, the Land Acquisition Act of 1967 has also increased the percentage of state land from a mere 44% in 1960 to approximately 75% in 2000, see Table 1. Despite this similarity, the Hong Kong public housing program has achieved only 34% public homeownership compared to 92% in Singapore in 2000 (Housing Authority, 2000; Housing and Development Board, 2000). This disparity is essentially due to the different housing objectives and policies that have been pursued by the two countries.

The Home Ownership Scheme (HOS) has been implemented in Singapore and Hong Kong to help low and middle-income households become public housing owner-occupiers. An average of 30,000 and 50,000 public housing units have been sold each year in the past few years through the Housing and Development Board in Singapore and the Housing Department in Hong Kong respectively. Although Hong Kong started its public housing program in 1954 after the fire at Shek Kip Mei, six years ahead of Singapore, the former only set up the HOS in 1978 compared to 1968 in the case of Singapore. The later introduction of this scheme and hence the lower public homeownership rate in Hong Kong could be due to its government's non-interventionist approach to avoid disrupting its laissez-faire economic environment as well as its original focus on urban redevelopment and resettlement during the 1960's and 1970's. In contrast, from the onset, the Singapore government has concentrated on providing public housing to the low and middle-income segments of the population regardless whether they have been affected by resettlements. Thus, while direct provision of housing was one of the Singapore government's major objectives in the 1960's and 1970's, the Hong Kong government has employed its public housing program also to facilitate its urban renewal efforts. As a consequence, there appears to be a divergence in the type of households targeted by the public housing programs in Singapore and Hong Kong.

Another difference in the public housing programs of the two countries is that while the Singapore government conducts stringent

TABLE 1: **Distinct Features of the Singapore and Hong Kong Housing Systems**

	Singapore	Hong Kong
State land as percentage of total land stock in 2000	Approximately 75%	Approximately 100%
Public homeownership rate in 2000	92%	34%
Private housing stock as percentage of total housing stock in 1999	18.1%	Approximately 45%
Home financing	Bank mortgages and CPF	Bank mortgages
Loan to value ratio	80%	70%
Mortgage payment to income ratio	40%	No requirement, the norm is 50%

Sources: Singapore Census (2000), Singapore Land Authority (2004), Singapore; The Other Hong Kong Report (various issues), Hong Kong.

means tests to ensure that only the lower and middle-income households are eligible for public housing, the Hong Kong public housing system has means tests but not as effective as Singapore's. As such, the outcome is that higher-income households are also eligible for public housing in Hong Kong as long as they have been affected by resettlements. This raises the question of equity in income distribution, especially when public housing is heavily subsidized by the government.

Since homeownership usually requires mortgage financing, the availability and affordability of mortgage funds have a direct impact on the homeownership rate. Unlike the Home Purchase Loan Scheme (HPLS) in Hong Kong, which provides interest-free mortgage loans or monthly mortgage subsidies to public homebuyers, the public housing financing scheme in Singapore only offers a subsidized mortgage interest rate that is lower than commercial banks' prime lending rate. This is because, in Singapore, the CPF is an important component of the housing finance system. Studies have shown that changes in policies on the use of CPF towards home purchase would affect the affordability of homebuyers. Since May 1996, the loan to value ratio for home purchase in Singapore is 80% and the mortgage payment to income ceiling requirement is 40%. In the context of Hong Kong, the loan to value ratio is pegged at 70% but the mortgage payment to income ceiling requirement was relaxed to about 50% since July 1998 to ensure a flow of mortgage funds, see Table 1. In view of the variations in mortgage financing terms in both cities, it seems that Singapore's CPF system of servicing the housing loan has a greater impact on homeownership than the interest-free loans and mortgage subsidies in Hong Kong. It could be because the utilization of CPF could alleviate part, if not all, of the burden of mortgage payments, thereby making homeownership relatively more affordable for households in Singapore.

As the provision of public housing is a massive effort, private sector participation is often included but up to different degrees of involvement, as observed in the cases of Hong Kong and Singapore. In Hong Kong, under the Private Sector Participation Scheme (PSPS), the government sells state lands to private developers to construct public housing, which are then sold at fixed prices set by the government. Thus, the entire process of development, marketing and sale of the public housing project is managed by the private sector except for pricing. In contrast, the private sector in Singapore is only involved with the design and construction aspects of some public housing projects that are under the Design and Build Scheme. The Singapore government still maintains ownership of the land as well as full control over the development process including marketing, sale and pricing. This difference clearly reflects the laissez-faire approach adopted by the Hong Kong government where it strongly encourages and promotes private sector-led enterprises. With the public housing dwellings developed by the private sector in Hong Kong closely resembling those in the private housing market, more so than in the case of Singapore, there could be important implications for the Hong Kong private housing market.

In Hong Kong and Singapore, government intervention through direct provision of public housing as well as strategic policies to encourage homeownership has transformed their housing tenure and structure from a basically rent control system in the 1950's to their current owner-occupier society. The growing dominance of the public housing owner-occupier market in Singapore and Hong Kong has many spillover effects to the private housing market.

Private Housing Market

In contrast to the public housing market, the governments in Hong Kong and Singapore do not have direct control over private housing prices. Instead, the governments of both countries try to influence the private housing market in the same way, that is, through their supply of state land for private housing development, provision of public housing, control of public housing prices as well as regulation of mortgage financing.

Among the various initiatives undertaken by the Hong Kong and Singapore governments to influence private housing prices, the most frequently employed and direct method is that of the sale of lands for private housing development. The alienation of lands in Singapore is administered by the Urban Redevelopment Authority (URA) and the Singapore Land Authority (SLA). Although there is usually a time lag effect, this supply-side policy directly affects the quantity of private housing entering the market. This initiative is probably the most flexible and easiest to implement given the fact that the government has full control over the management of lands, and could introduce the land supply incrementally in response to market fluctuations and/or external shocks to the economy. For instance, during the Asian financial crisis in 1997/1998, both governments similarly suspended their schedule of land sales in order to address the downward trend of private housing prices caused by the poor demand for and surplus of private sector dwellings.

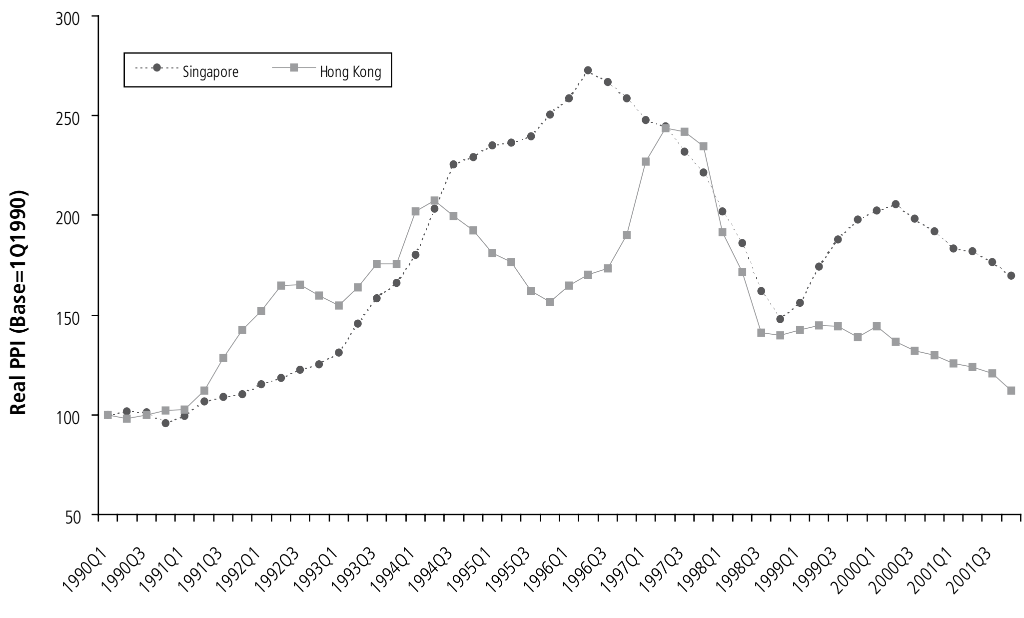
The adjustment of mortgage financing terms has been part of the Hong Kong and Singapore governments' strategy to influence the private housing market and prices. For example, when the housing markets in Hong Kong and Singapore were experiencing a boom in the early and mid 1990's respectively, the respective governments introduced a set of anti-speculation measures, which included a reduction in the mortgage loan to value ratio, and hence the requirement of an initial deposit. Although similar measures had been implemented earlier in the Singapore public housing resale market, these initiatives represented a clear intervention in the free market system of the private housing markets in both Hong Kong and Singapore for the first time. As the nature of credit tightening measures tend to have a direct impact on household's affordability, the demand and hence prices of private housing in both countries started to fall almost immediately after implementation, see Figure 1.

When the Asian financial crisis in 1997 eroded the confidence of investors and consumers, the Hong Kong government in

July 1998 increased the threshold for mortgage lending whereby the mortgage loan repayment to income ceiling requirement was relaxed from 40% to 50%, see Table 1. However, due to the adverse economic environment prevailing in the region, this initiative has little impact on boosting public confidence, and as such, private housing prices in Hong Kong have continued to decline, see Figure 1. In contrast, the Singapore government did not employ this measure, opting instead to suspend land sales in 1998 and 1999. Prices of private housing in Singapore started to increase by the first quarter of 1999, see Figure 1. This observation infers that while changes in mortgage financing conditions would normally affect housing prices, they may not necessarily be effective when the economic climate is uncertain or when consumer confidence is low.

In order that public housing production and prices could have an effect on the private housing market, the filtering process between the public and private housing markets has to be efficient. Policies implemented by the governments in Hong Kong and Singapore to facilitate residential filtering include establishing a resale market for public housing so that public homeowners could sell off their dwellings and upgrade to private housing after satisfying a minimum residence period. As public housing is similarly heavily subsidized in both countries, public homeowners could often benefit substantially and sufficiently to enter the relatively higher-priced private housing market after selling off their dwellings. This linkage between the public and private housing markets has allowed the Hong Kong and Singapore governments to influence the prices of private housing, but only to a certain

FIGURE 1: **Real Private Housing Price Index of Singapore and Hong Kong (1990-2001) (Base = 1st Quarter 1990 = 100)**



Sources: Urban Redevelopment Authority (1990-2001), Singapore; Rating and Valuation Department (1990-2001), Hong Kong.

extent because most of the public homeowners could just upgrade to dwellings at lower-end of the private housing market.

Conclusion

Both Hong Kong and Singapore have a very high percentage of public housing. About half of the population live in public housing in Hong Kong and 87 percent in Singapore. But they show considerable differences in these two cities. Singapore has a more vigorous finance system to boost the housing development in both public housing and private housing, while Hong Kong finance is less vigorous. CPF is an important vehicle for public housing finance in Singapore. Hong Kong does not have such equivelent mechanism until this century. Singapore government actively promotes the home owhership as a means of naiton-build and a sense of belonging. Therefore the government's program focuses on the promotion of homeownership in the public housing sector. Hong Kong starts its public housing program with a different objective to tackle the housing problem of the low income and those dislocated by the redevelopment of the city. Hong Kong focuses on rental housing.

Similar trends can be found in Hong Kong and Singapore to boost the private housing sector recently. Singapore aims to increase the private housing stock to 30 percent; while Hong Kong largely reduced the public housing supply in the last two years and continue to shrink the public housing sector. Hong Kong has been trying to reduce the government intervention. The Singapore government has always been actively in intervening in the private housing markets such as anti-speculation policies which alter the behaviour of the Singapore private housing markets. The government intervention in Singapore has obvious impacts on housing markets. While in Hong Kong government's intervention is mainly restricted to the supply of public housing. Public housing has observed impacts on the private housing. The impacts are particularly large to the low end products. The government interventions affect the distribution of housing benefits and leads to inequality of housing benefits in Hong Kong. While the government intervention in Singapore does not see obvious negative distribution of housing benefits.

The CPF fudning has a positive coorelation with the housing prices in Singapore. The mortgage rate has relatively stable in Singapore. Therefore we can safely say that mortgage rate may not affect the housing prices very much in Singapore. The change of housing prices may reflect the impact of the external economic conditions such as the oil crisis and financial crisis. It indicates the vunerability of small economies. Hong Kong shows the similar external impacts on its housing prices. There is a strong coorelation between housing production in the private and public sectors in Hong Kong. This coorelation affects the housing prices in the private sector. While in Singapore, there is a clear coorelation existing between public housing prices and private housing prices.

The relationship between housing prices and domestic economic development is less conclusive. However, we find that the external economic conditions have much impacts on housing markets. Housing prices in both Singapore and Hong Kong decreased sharply in response to the financial crisis. Singapore is more vulnerable to the impacts of the external economic development. While the influx of foreign population in Singapore does not reflect a positive impacts on the housing prices. Now the immigrant growth rate is double that of natural growth rate in Singapore. Housing prices in Hong Kong are more sensitive to the population growth due to the mainland Chinese influx. This can be explained that external population in Singapore do not have strong incentives of buying properties in Singapore. Another interesting thing is that before 1996 foreign investors enter the housing markets in Singapore. Foreign investors in Singapore's housing markets share a clear cultural similarity. They are mainly Chinese in neighbouring countries. The political stability attracts them to seek safe heaven in Singapore. But the anti-speculation policies defer them to be active in the housing markets. Singapore is now actively promote economic policies which can lower its production costs. The rapid rise is not in the government's interest. This will be reflected in the future that housing prices will be less fluctuated in Singapore comparing to Hong Kong. The main problem facing Hong Kong is not economic issues but rather political ones. But those political issues are clearly hindering Hong Kong's great potential and also create economic uncertainty which lead to more fluctuations in the housing markets in Hong Kong.

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