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An Inquiry into the Relationship between Hong Kong's Current Economic Crisis and Housing Policy

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Introduction

The Hong Kong economy went into a tailspin in 1998, with the gross domestic product (GDP) contracting by 5.0% (http://www.info.gov.hk/hkecon/gdp/index.htm). While this decline was not entirely unprecedented, there had not been a single year of negative growth in Hong Kong since 1962. The official explanation was that it was caused by the Asian Financial Crisis (AFC), but such a dramatic decline is in fact much harder to explain. It is not easy to see how an attack on Asian currencies could lead to an economic crisis in Hong Kong worse than that experienced during the Cultural Revolution of the 1960s, the oil price shocks of the 1970s, or the banking crises that had led to multiple bank failures.

This study suggests that the spectacular housing price increases that took place prior to 1998 was more a reflection of Hong Kong's prosperity, low taxes and wealth than a speculative bubble. While housing prices in Hong Kong were due for a major correction there was no reason why they had to fall continuously and to such a degree as has been witnessed to date. This study presents evidence that Hong Kong's demise was home-made. While the AFC did cause Hong Kong's interest rates to rise significantly, increases in mortgage rates were relatively moderate compared to those seen in the early 1980s. Deflation did not set in until late 1998. Although interest rate jumps in late 1997 did have an adverse impact on the housing market, reasons for the spectacular declines in property values have to be sought elsewhere.

This study advances two explanations. The first is that the introduction of the Tenants Purchase Scheme (TPS) in December

1997, which offered sitting tenants the opportunity to buy their own units at deeply discounted prices, immediately reduced the attractiveness of Home Ownership Scheme (HOS) flats, which looked ridiculously expensive in comparison. HOS homeowners suddenly had a dearth of buyers. Turnover in the second-hand market dropped precipitously, and developers had to look beyond existing homeowners in order to find buyers. After they had exhausted one "crop" of buyers, they had to further cut prices in the following year in order to attract buyers with a lower purchasing power. This was why housing prices kept falling even in 2000, when economic growth was actually quite high.

The second explanation is that the total supply of homes increased rapidly after 2000. This was in part the result of the production target of 85,000 units a year as announced in the Tung Chee-hwa's 1997 Policy Address. Housing prices had to fall under the weight of such a huge supply.

I found that the domestic private economy, as measured by the sum of domestic private consumption and domestic private investment, is always driven by the housing price index. Causation does not run from domestic demand to housing prices. This explains why the domestic economy fell so sharply after 1997, and why increases in unemployment were concentrated in domestic sectors such as finance, real estate, retail sales and construction. I found that although Hong Kong's export growth declined after 1997, the degree of decline was in line with that for the world as a whole, and actually smaller than that experienced by such economies as South Korea, the United Kingdom and the United States (US). There was little evidence that the integration with the mainland played an important role in Hong Kong's decline, and little evidence that the opening up of China caused the Hong Kong economy to shrink. The decline of the economy came just too suddenly, when the opening up of mainland China and Hong Kong's integration with the mainland had been occurring for some time and was continuous.

I also found that export growth and interest rates explained Hong Kong's housing price movements quite well, but that if the relationship prior to 1998 had held, Hong Kong's housing prices would have recovered to the earlier levels. In sharp contrast, housing prices continued to decline.

Interestingly, high real interest rates were found to be a result of the decline in housing prices, rather than a cause. Shrinking property values reduced domestic demand so much that prices kept falling. Deflation occurred as a result of the plunge in property values, boosting real interest rates.

The plunge in housing prices was the key to the huge budget deficit that emerged after 1997. I present evidence that the Hong Kong fiscal system was highly dependent on land-based revenues and indeed was probably the closest model to Henry George's ideal of the single tax, i.e., the Georgian tax. Henry George (1839-1897) was a social reformer who argued that the only tax that is required to finance the working of a government is a tax on land rent. By eliminating taxes on income and all other taxes, the incentive to invest and to work would be enhanced. The progress of society would be reflected in higher land values, and the government could tax land to fund all worthwhile government expenditures. It was no accident that prior to 1998 Hong Kong's land costs were probably the highest in the world and Hong Kong's taxes probably the lowest.

So what should be done? The way to help Hong Kong emerge from the current economic quagmire must be through reviving the housing market. By November 2002, the Secretary for Housing, Planning and Lands had already drawn up a nine-point proposal to revive Hong Kong's housing market . Among the nine points was the suggestion that the TPS be shelved from 2004. It is unfortunate that the government decided that the last phase involving the sale of 50,000 units had to proceed because it had already been announced. Given such a situation, it is even more important to have an effective mechanism to deal with the problem of excess supply in the short run. This can be done by setting up a fund (called a Housing Market Stabilization Fund) to buy up a major portion of the excess supply of housing worth less than HK$2 million. New flats of less than HK$2 million directly compete with existing homeowners for buyers. By mopping up the excess supply and the direct competition, existing homeowners will not have to face declining property values. The purchased units can be rented out, and the rental income can be used to service the interest cost of the bonds issued when the Housing Market Stabilization Fund is set up. Another useful strategy lies in offering HOS owners and "sandwich class flat" owners the opportunity to sell their units back to the Hong Kong Housing Authority (HA), provided that they purchase a second-hand unit in the private housing market. In this way, the problem of negative equity can be alleviated immediately, and the beneficial results will ripple through the entire market. Other private homeowners will also benefit indirectly, and the stock market will be reactivated. The government can rent these units to public rental housing (PRH) tenants at a rate that is still attractive but higher than the current rents the tenants have been paying for their units. The government can save the cost of constructing PRH, collect more in stamp duties, profits tax and income tax and, because unemployment will fall, save on Comprehensive Social Security Assistance (CSSA) payments.

Hong Kong does not lack a "growth engine." In 2000 and in 2002, we have seen exports as effective growth engines. But the growth engine cannot work properly if declining housing prices continue to erode wealth and the value of the collateral held by small and medium enterprises. Unfortunately, the government has kept itself busy looking for new growth engines, while neglecting the crucial link to the domestic economy, namely the housing market. On reflection, what has transpired in the past six years is tragic because it was avoidable.

Hong Kong's Economic Miracle Before 1998

After first reporting its official GDP statistics in 1961, Hong Kong enjoyed four decades of almost uninterrupted growth at a compound annual rate of 7.48% up until 1997. This record put Hong Kong at the forefront of economic growth in the world. Even mainland China, with its very high rate of growth, can claim strong economic growth only since 1979. Economic growth

prior to China's opening up, although strong according to official figures, cannot be verified through an observed improvement in the living standards of the population, as has been possible in the post-1979 period.

This four-decade long record of growth, spanning periods of acute political turmoil (the Cultural Revolution from 1966 to 1968, the multiple banking crises of the 1960s and the 1980s, the global recessions resulting from the oil price shocks of the 1970s, and the interest rate shocks of 1980 and 1981) earned Hong Kong its fame for resilience. Throughout the entire period up to 1997, for as long as official data on GDP was available, the Hong Kong economy rebounded strongly following each economic slowdown. For example, economic growth almost ground to a halt in 1975, and unemployment that year actually reached a high of more than 9%. In 1976 economic growth was over 16%, and the unemployment rate was down to 5.1%. This was followed by another four years of double-digit or near double-digit growth. In 1985, economic growth again fell, to 0.4%, due to a very strong US dollar. With the depreciation of the US dollar following the Plaza Accord in September 1985 the economy rebounded strongly, registering three straight years of double-digit or near double-digit growth (Table 1).

It is true that when Hong Kong entered the 1990s, the rate of economic growth slowed down considerably. However, prior to 1997 economic growth was still a respectable 3.4% to 6.3%, which compared favourably with that of any developed country with a similar per capita income. Moreover, world economic growth, on a cumulative basis, had slowed down considerably from 23% between 1980 and 1987 to 15% between 1990 and 1997. The decline in Hong Kong's economic growth from the early 1980s to the early 1990s was entirely in line with the decline in global economic growth.[1]

What was the driving force of this phenomenal growth? What lay behind Hong Kong's resilience? These questions captured the interest of many scholars. Nobel Prize-winning economist Milton Friedman (1997) noted how close Hong Kong's GDP per capita had come to that of the US. In 1950, he

Table 1 Hong Kong's Economic Growth, 1961-2002 (GDP % change)

1961	—	1975	0.3	1989	2.6
1962	14.2	1976	16.2	1990	3.4
1963	15.7	1977	11.7	1991	5.1
1964	8.6	1978	8.5	1992	6.3
1965	14.5	1979	11.5	1993	6.1
1966	1.7	1980	10.1	1994	5.4
1967	1.7	1981	9.2	1995	3.9
1968	3.3	1982	2.7	1996	4.3
1969	11.3	1983	5.7	1997	5.1
1970	9.2	1984	10.0	1998	-5.0
1971	7.1	1985	0.4	1999	3.4
1972	10.3	1986	10.8	2000	10.2
1973	12.4	1987	13.0	2001	0.5
1974	2.3	1988	8.0	2002	2.3

Sources: Census and Statistics Department (2000:14); http://www.info.gov.hk/hkecon/gdp/index.htm.

pointed out, the US had a per capita GDP nearly six times that of Hong Kong. In 1996 it was only 7% higher. Friedman attributed Hong Kong's unprecedented success to the limited role of its government. In particular, he praised Hong Kong over the US because:

- Direct government spending was less than 15% of national income, versus 40% in the US.
- Indirect government spending via regulations and mandates on private individuals and businesses was negligible in Hong Kong but absorbed around 10% of national income in the US.

Economists normally explain economic growth in terms of factor inputs and growth in "total factor productivity," which is an index relating inputs to outputs. If the same inputs generate greater output, we say that total factor productivity has gone up. Economic growth can be driven by factor accumulation, or by gains in efficiency that render the same factors more productive than before. Friedman argued that Hong Kong's small government and its hands-off approach unleashed an instinct for innovation and entrepreneurship, which is the key to higher total factor productivity. Hong Kong has consistently been rated the world's freest economy for as long as the Heritage Foundation's index of economic freedom has existed.[2] This appears to lend support to Friedman's hypothesis that Hong Kong's superior economic performance was due to its "small government" and high degree of economic freedom.

Apart from being the world's freest economy and one of the fastest-growing economies in the world, Hong Kong has also built up a huge fiscal reserve over the years. With only a few exceptions, Hong Kong has recorded a fiscal surplus almost every year. At the same time, Hong Kong was famous, or infamous — depending on how you look at it — for being the place with probably the most rapid appreciation in land and housing prices in the world. We do not have data on Hong Kong's housing price index prior to 1981. From 1981 to 1997, California's housing prices went up by 92.1%. During the same period Hong Kong's housing prices went up by 570.9%. These figures may not be directly comparable, because the Hong Kong dollar depreciated quite sharply before it was pegged to the US dollar on 17 October 1983 and Hong Kong had much higher inflation. Also, the official peg at HK$7.8 to US$1 valued the Hong Kong dollar at considerably lower than the approximately 5.5 to 1 rate that had prevailed in 1981. If we consider the effects of this sharp depreciation, the 33.3% decline in the housing price index from 1981 to 1984 easily translated to a 50% decline in US dollar terms. This tremendous loss in property values occurred in the face of political uncertainty, when there were many worries about the future of Hong Kong during the Sino-British negotiations ahead of the handover. During that period California's housing prices went up by 10.3%. However, from the end of 1984 to the end of 1997, during which the Hong Kong dollar was tied to the US dollar, Hong Kong's housing prices rose by 883%, whiles California's rose by 73%.

Such rapid rates of increase led to concerns that a dangerous asset price bubble was developing. Witness the following words of warning from Ho (1994):

> While economic growth was moderate, Hong Kong's stock and real estate markets boomed at an alarming pace. The Hang Seng Index zoomed from 5,437 in the beginning of the year to 11,888 by year end, more than doubling the earlier value, while transaction volumes exceeded 10 billion dollars each day. Luxury homes and offices gained value alarmingly. No. 9 Queen's Road Central breached the 12,000 dollars per square foot, while a luxury home fetched prices in excess of 10,000 dollars per square foot. The asset price inflation in 1993 was so fast that it prompted worries about an asset price bubble (p. 38).

Ho (1995) also warned against inflation eroding the competitiveness of the Hong Kong economy. His diagnosis was that by the period 1992 to 1995 Hong Kong's inflation had changed from "demand-pull" to "cost-push." Under the heading of "Expectation-driven, Administered Price-pushed Inflation 1992-Now: Why it Hurts," Ho pointed to the government's policy of cost recovery as driving the cost of education, medical services, transport, water charges, postal services, etc. While globalization was having a tremendous impact on the relocation of production processes to emerging economies such as Eastern Europe, Mexico and Southeast Asia, Hong Kong had "allowed its inflation to go unabated." In the Appendix to his 1995 article, Ho also showed why the government had been awarding real compensation increases in the name of keeping up with inflation, thus giving further spurring on inflation.

Thus, there was little doubt that by 1997 asset prices in Hong Kong were inflated and were ready for a significant correction. The positive factors about Hong Kong include its high degree of economic freedom, excellent infrastructure, access to the vast China market, excellent networks with the rest of the world, flexible markets, a good workforce, entrepreneurs

who are highly sensitive to the market, an efficient civil service, good labour-capital relations, etc. The question is: If all of these positive factors had hardly changed after the handover, shouldn't Hong Kong have continued to grow at a respectable pace, and shouldn't this growth lend support to housing prices? After a correction, shouldn't asset prices have recovered? After an economic slowdown, shouldn't the economy have picked up — just as had always happened in the four decades preceding 1997?

The fact is that in 1998 the Hong Kong economy plunged sharply into a mini-depression, notwithstanding apparently strong fundamentals. Hong Kong had no external debt. Hong Kong's relations with mainland China had been a negative factor during Chris Patten's term as Governor, but they were excellent with Tung Chee-hwa as Chief Executive. South Korea had rebounded strongly after the AFC. Why did Hong Kong's economy continue to be in the doldrums, with no sustainable recovery in sight? From 1993 to 1997, 363,500 jobs were created in Hong Kong. From 1997 to 2001 the figure was only 88,700. Why did Hong Kong's employment creation engine fail so badly after 1997?

Sir Murray MacLehose

In 1971 Sir Murray MacLehose became Hong Kong's Governor. His impact on the development of Hong Kong was enormous. It was he who established the Independent Commission Against Corruption, which was instrumental in cleansing the government, particularly the police, of corrupt practices. The introduction of compulsory education in 1979 was also his initiative. He also introduced a ten-year programme to construct public housing. In his Policy Address of October 1972, he announced that in the next ten years, residences with full basic facilities and a decent living environment would be constructed for 1.8 million Hong Kong people. To achieve this target 72 public housing estates would be constructed, of which 53 would be newly built, 12 would be converted from old housing estates, and 7 would be village estates.

A new HA was established in 1973 with the following responsibilities:

- to manage all existing public housing estates and to oversee the development of future public housing estates;
- to control and prevent squatting, and to clear land for the development of housing; and
- to advise the Governor on housing policies and related matters.

A Housing Department was formed by amalgamating the former Resettlement Department and the Housing Division of the Urban Services Department. It was to serve as the executive arm of the HA.

1978 saw another milestone in Hong Kong's history of public housing. The HA launched the first phase of the HOS housing project, putting six HOS courts on the market. From 1978 through 1997, a total of 229,600 subsidized flats were completed and sold (Hong Kong Special Administrative Region Government, 1998:452). Together with the over 700,000 PRH units, over 3.3 million out of a population of 6.5 million in 1997 were being accommodated in government subsidized housing.

According to some people, this big government involvement in public housing came at a huge cost to the public purse. Typically, the degree of subsidy was taken to be the difference between the actual rent paid and the estimated market rent for that quality of housing for renters, and the difference between the actual price paid and the estimated market price for HOS housing.[3] The imputed land cost subsidy, it is true, has to be repaid when the HOS housing unit is resold, which is permitted after ten years of occupancy.[4] Actual re-sales, however, were relatively few. Therefore, it is often believed that the price difference was a good indicator of the amount of the subsidy given to HOS buyers.

Such an analysis is what economists describe as "partial equilibrium." It assumes "other things being equal." But other things are not equal. If the market price is high *because of the public housing programme* the price differential exaggerates the

implicit subsidy, particularly given the fact that the government may actually be able to collect its huge revenues *because of the public housing programme.* Table 2 shows that because they enjoyed low rents, many tenants were also able to accumulate huge savings, particularly during the periods of high inflation between 1989/90 to 1994/95. Indeed, the degree to which Hong Kong's PRH tenants saved in comparison to other types of households widened over the years. By 1994/95, compared to nearly all income groups, PRH tenants saved significantly more than private housing tenants or owners. This put many PRH

Table 2 Mean Monthly Household Savings by Type of Living Quarters by Income Group, 1989/90 and 1994/95 (HK$)

Income Group	PRH	HOS	PRR	POR	Total
1989/90					
Bottom 25%	-503	n.a.	-174	-631	-451
25-49%	714	-277	-6	202	425
50-74%	2,924	1,880	2,187	2,410	2,499
75-89%	6,459	3,552	5,788	4,989	5,212
Top 10%	16,635	15,746	17,915	14,770	15,845
1994/95					
Bottom 25%	-713	-2,091	-724	-2,773	-1,041
25-49%	2,059	396	469	439	1,221
50-74%	6,749	4,103	1,445	4,225	4,621
75-89%	15,716	11,700	10,981	12,365	12,565
Top 10%	40,933	26,217	26,117	28,229	27,929

Notes: PRH = public rental housing tenants;
HOS = home ownership scheme owners;
PRR = private rental housing renters;
POR = private home owners.

Source: Household Expenditure Survey 1989/90, 1994/95, Census and Statistics Department, reported in Watanabe (1999:Table 6.6).

tenants in an excellent position to become major players in Hong Kong's housing market. According to the *Final Report on the Mid-term Review of the Long Term Housing Strategy*, "about 13% of PRH tenants or 74 000 out of 580 000 households covered by a survey in July 1993 owned private domestic properties. Another survey on tenants in North Point Estate showed that 18% of them owned private domestic properties in the urban areas alone. Some one-third of these households owned more than one property and a small number even owned up to five properties. An independent exercise revealed that PRH tenants accounted for as much as 24% of all purchases of private flats by local individuals in the period October 1992 - March 1993. The survey results point to the prevalence among PRH tenants in private property ownership"(HA, 1994:paragraph 10.3).

Thus, we can conclude that one important legacy of Sir MacLehose was the housing market boom prior to 1997 and the huge fiscal reserves handed over to the Hong Kong Special Administrative Region (HKSAR). Paradoxically, the public housing programme was not a burden to the colonial government. On the contrary, even the HA, as Hong Kong's number one housing developer, amassed huge profits that were more than sufficient to fund the PRH programme. Because the HA was allowed to keep the profits, it was also able to keep expanding and to become a huge, inefficient bureaucracy.

The effects of the participation of PRH tenants in the local housing market were amplified with the onset of a policy introduced in 1987, when the government announced it would make the richer tenants pay a higher rent. The threat of higher rents pushed the richer tenants to invest their savings in the housing market. Initially, they bid up the prices for lower-tier housing, whose owners were then able to offer attractive bids for higher-tier housing. Owners in these higher-tier housing units could in turn trade their homes for still better housing. Thus, the infusion of money into the housing market increased turnover in the housing market and buoyed up the entire market, resulting in a multiple increases in asset value. Causality tests run by the author and others also indicated that the turnover in lower-tier

housing preceded that of higher-tier housing. Other statistical tests indicate that higher prices of lower-tier housing apparently caused the prices of higher-tier housing to rise (Ho et al., 2003). These and other results are summarized in the Appendix.

Another legacy of the MacLehose era was the building up of Hong Kong's manufacturing prowess during the 1970s and early 1980s. Because of the public housing programme Hong Kong manufacturers could pay wages that were very competitive, with the result that housing subsidies worked like a wage subsidy benefiting Hong Kong's light industry and creating handsome profits that could be re-siphoned into the economy to benefit many other sectors, including the housing market.

The China Connection

There is an ongoing hypothesis, one that is popular but not verified, to explain Hong Kong's boom-bust cycle before and after the handover of sovereignty. According to this hypothesis, Chinese capital, particularly illicit capital, was an important driving force behind the rise in housing prices ahead of the handover, and that the integration with the mainland would lead to "factor price equalization," meaning that asset prices would fall to levels comparable to those prevailing on the mainland. Still another theory is that because China was opening up so quickly to the world, Hong Kong's special role as a window for the mainland or as a middleman had declined in importance. China could forge direct links with the rest of the world, so Hong Kong was left in the cold after the handover.

For obvious reasons there is no data on the amount of illicit capital that comes to Hong Kong from the mainland. But according to Wong Leung Sing of the Research Department of Centaline Property Agency Limited, a name search among home buyers has produced only a very low percentage of names with a Putonghua spelling. In addition, because quite a number of local residents now also spell their names in Putonghua, there was little evidence that mainlanders were manipulating the Hong Kong housing market.

It is, of course, possible that mainland Chinese participated in the local housing market under the guise of registered Hong Kong companies. But the percentage of buyers that are companies in the housing market has always been well below 10%, and this figure is mostly made up of genuine Hong Kong-based companies. Therefore, while mainland buyers were indeed players, particularly in the luxury homes market, there was little evidence that they were major players at any given time.

It must also be remembered that in July 1993 Premier Zhu Rongji introduced a 16-point austerity programme mandating that, by a certain deadline, all specialized banks must recoup funds loaned out in order to stay within the stipulated limits set by the People's Bank. Also, the programme mandated that irregularities in lending by financial to non-financial institutions, as well as irregular capital raising measures must be straightened out (Ho, 1994). According to the *Hang Seng Economic Monthly* of February 1996:

> Over the past two years, China's stringent measures have already led to a substantial drop in the flow of investment funds from the mainland. During the early 90s, Chinese investors were active players in the local property market, fuelling rapid increases in both prices and rentals. It is therefore not surprising that their subsequent withdrawal has led to a fall in activities in this sector (p. 3).

From this, we may infer that the dramatic escalation of housing prices prior to the handover had little to do with the infusion of Chinese capital. On the other hand, Table 3 shows that PRH tenants were paying what can be described today as exorbitant prices for HOS flats, lends support to the hypothesis that the infusion of capital from PRH tenants, rather than the infusion of capital from the mainland, was the driving force behind the escalation in housing prices from 1995 to 1997.

While the infusion of capital from the mainland was not a key driving force behind the rise of housing prices before 1997, the outflow of capital from Hong Kong to buy homes in China certainly had a role to play in the downturn of the housing

Table 3 Actual Transactions of HOS Units in the Secondary Market, Fu Keung Court

Usable Floor Area (sq. ft.)	High, Middle, or Low Floor	Date of Agreement to Purchase	Price ($m)	Land Premium Discount Rate (%)
644	Middle	09/1997	3.95	29
644	High	11/1997	3.60	29
645	Middle	04/1998	2.56	29
645	Middle	10/1998	1.99	35

Note: Fu Keung Court is located in Wang Tau Hom. Sellers do not have to pay the land premium discount when they sell in the HOS secondary market that is restricted to PRH tenants. The buyer will, however, have to repay the land premium discount upon reselling the property on the open market. The land premium discount is calculated from the formula (Market Price – Sale Price)/Market Price at the time of the original purchase.

Source: HA (http://www.housingauthority.gov.hk/en/residential/hostps/transactionarchive/0,,,00.html).

market and the economy in Hong Kong. From this perspective, it seems that there is some truth in the argument of "factor price equalization." But it is strange that Hong Kong people did not buy so many homes in China prior to 1997, when the price differential was much higher. The factor price equalization thesis should imply bigger outflows when price differentials are greater and smaller outflows when price differentials are smaller. There was no evidence of this at all.

Before 1997, there was indeed a brief period, from 1990 to 1993, when speculative purchases were being made of mainland housing futures. Thus, there was indeed some transmission of "heat" from Hong Kong to the mainland, but there was no sign of price equalization, since housing prices in Hong Kong continued to rise, while those on the mainland were relatively stagnant. Then came Zhu Rongji's austerity programme in 1993, which left many residential developments uncompleted for lack of capital. Many Hong Kong speculators could not recover their initial investments. The period from 1993 through 1997 was one of calm. Few Hong Kong-originated purchases of mainland residential properties were made, even though the prices of homes in Hong Kong kept climbing. On the other hand, after housing prices had plummeted in Hong Kong and continued to slide, interest in mainland properties appeared to grow strongly. This suggests that the slump in Hong Kong's housing market was more of a cause than the effect of capital flight to China in pursuit of cheaper homes.

In any case, at least until the time of writing, homes were not being purchased on the mainland with the intention that they substitute for homes in Hong Kong. Most people buy mainland properties to serve as a second home or as a holiday resort. Some buy mainland properties as an investment. As investment properties, they are of course substitutes for Hong Kong residential properties. But Hong Kong residential properties have been losing appeal because they have been losing in value and have become poor investment vehicles. Factor price equalization has not been a factor behind the apparent convergence of the prices of properties on the mainland and in Hong Kong.

Rather than money from the mainland, we have plenty of evidence that money from PRH tenants must have played an important role in supporting Hong Kong's housing market. As indicated in Table 3, "Green Form Applicants" who were typically PRH tenants had offered very, very high prices for HOS flats in the HOS secondary market. This is a restricted market that allows HOS owners to sell their units to PRH tenants without having to repay the land premium to the HA. Since the buyers were clearly "Green Form Applicants," they were not from the mainland. Mainland capital was not involved. If PRH tenants could pay this kind of price, it is no wonder that HOS homeowners could pay very high prices for homes in the private sector.

Regarding the thesis that with the opening up of mainland

China, Hong Kong's unique role as China's intermediary with the outside world declined, especially after 1997, I examined Hong Kong's external trade in goods and services and compared this with the performances of other trading entities. As Table 4 indicates, while the growth in Hong Kong's exports of goods and in services fell after 1997, Hong Kong actually did quite well relative to most countries in the period 1998-2001. The decline in

Table 4 Relative Trade Performance of Hong Kong Before and After 1997 (%)

	Merchandise Exports Cumulative Growth Rates			Services Exports Cumulative Growth Rates		
	1998-2001	1994-1997	Percentage Change	1998-2001	1994-1997	Percentage Change
Hong Kong	9.27	24.25	38	18.93	23.67	80
Japan	4.01	6.03	67	3.03	20.01	15
Korea	13.70	41.82	33	19.23	56.71	34
Malaysia	19.94	33.81	59	23.11	69.23	33
Philippines	9.23	87.03	11	-58.27	124.18	-47
Singapore	10.79	29.08	37	38.35	32.53	118
Taipei	10.85	30.37	36	21.87	29.78	73
US	7.13	34.35	21	10.65	28.29	38
Canada	21.24	29.66	72	7.88	32.37	24
France	0.38	20.58	2	-5.13	7.00	-73
Germany	5.02	20.13	25	-1.38	34.23	-4
United Kingdom	-0.32	36.73	-1	2.85	41.91	7
Brazil	13.85	21.70	64	23.10	13.93	166

Note: Percentage change refers to the percentage of prior performance.
Source: World Trade Organization (2002).

Hong Kong's exports, particularly of services, after 1997 has been much smaller than that suffered by such economies as Taiwan, Korea, the United Kingdom and the US.

It may be contended that because Hong Kong's exports are mainly re-exports, the value added is not as great as the exports of other countries. This argument is, however, irrelevant to our consideration here, because the decline in the weighting of domestic exports in Hong Kong started much earlier than 1997, indeed as far back as the mid-1980s. The continual growth of re-exports disproves the claim that Hong Kong's middleman role had declined so significantly as to cause an economic crisis after 1997. The opening up of China did not start suddenly in 1998. Similarly, there is little evidence to suggest that the flow of illicit money from the mainland suddenly dried up after 1997 and thus produced the crisis. Further, if factor price equalization was a factor behind Hong Kong's deep recession after 1997, one would presume that the US and Canada would have suffered similar problems with the implementation of the North American Free Trade Area (NAFTA). Globalization would not be globalization if the opening up of China affected Hong Kong so badly because it was at its doorsteps — which is an entirely local problem — but spared the US, Canada or the United Kingdom.

Henry George

Given this almost uninterrupted history of growth, the dramatic reversal of Hong Kong's economic fortunes and its failure to recover since the handover of sovereignty in 1997 took many analysts by surprise. Jao (2001) devoted a full chapter to these "Two Puzzles." According to Jao, "there was no pervasive financial mismanagement, no reckless borrowing internally or externally. Hong Kong's banking system was one of the best supervised in the world" (p. 140). Yet what hit Hong Kong in 1998 resembled a depression more than a recession. There is simply no convincing explanation as to why the 1997-98 currency attacks on some of Hong Kong's neighbouring countries could have hit Hong Kong's economy more badly than did the Cultural Revolution of 1966-68 or the oil crises of the 1970s, particularly when Hong Kong's major trading partners, mainland China and the US, were still growing strongly. It must be pointed out that, unlike previous financial crises, which had caused bank runs and multiple bank failures, there were no bank runs in Hong Kong. Indeed not a single bank failed at this time.

It is the contention of this paper that both the earlier economic miracle and the later demise were due to what can be called the Henry George effect. The Henry George effect refers to the beneficial effects that are experienced when land rent is available and relied upon to serve as the "staple" of fiscal revenues, thus allowing a very low tax rate to be levied on incomes and consumption, and to the deleterious effects that result when land rent can no longer serve these functions. Prior to 1997, a strong housing market, nurtured by a regime of low taxes and a policy that encouraged people to pour their savings into the housing market, gave much impetus to the economy and allowed entrepreneurs to obtain bank credit with relative ease using properties held as collateral. Strong investment and consumption, sustaining economic growth even when export growth was not so strong, caused an economic boom, further bolstering the run-up in housing prices. Unfortunately, the government of the HKSAR did not realize the inevitability of housing price increases during times of sustained prosperity and set out to increase land supply in an attempt to dampen the price increases. At the same time it went about boosting homeownership by selling public housing at deeply discounted prices, without knowing that this would immediately reduce the flow of funds from the richer PRH tenants into the housing market. The result was a collapse in housing prices that amounted to several years of Hong Kong's GDP. This destroyed an important source of fiscal revenue and also eroded the collateral value of property. The resulting credit crunch also caused a dramatic shrinkage in the demand for office space, resulting in an even steeper decline in office rents and prices than residential rents and prices.

Statistical Tests

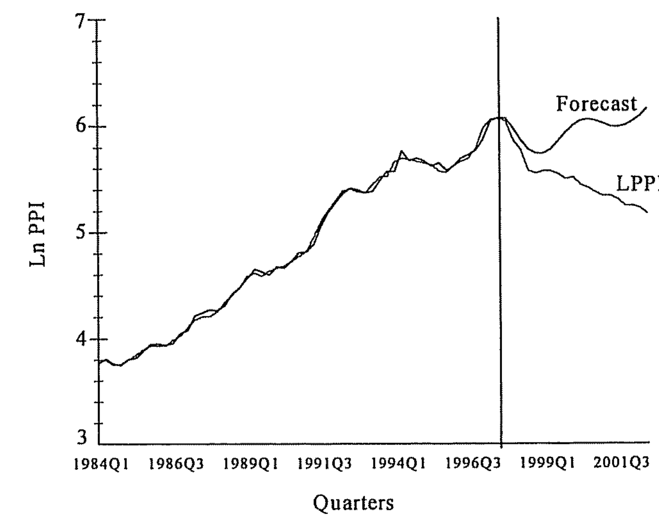
To test the thesis that misguided domestic policies largely accounted for the decline of the Hong Kong economy, I will examine several testable hypotheses. The first testable hypothesis is that competitiveness as reflected in strong exports and efficient government spending will drive up housing prices, and that a decline in competitiveness will produce the opposite effect. Since interest rates are known to be an important influence behind the demand for properties, I will also include the prime rate as a key variable to avoid problems of mis-specification.

The hypothesis can be tested using an ARDL (auto-regressive distributed lag) model using co-integration techniques. These are essentially statistical tests that will determine if the data is consistent with the direction of causality posited.

Using data from 1987 through 1997, I found the direction of causality to run clearly from export prices to housing prices and not the other way round. Figure 1 shows the fitted values of housing price and predicted values from 1998, in logarithmic form (LPPI). There was no evidence that government expenditures produced a systematic and consistent effect on residential housing prices, suggesting that they might not have been very efficient before or after 1997. The variable was subsequently dropped from the equation. Post-1997, I found that actual property values diverged more and more from predicted values, suggesting that, for some exogenous reason, earnings from the exports sector are not being ploughed into the housing market or, alternatively, that government policies have rendered the place unattractive to investments.

The second testable hypothesis is that housing price movements drive movements in private domestic demand. Thus, they bolstered private domestic demand when housing prices were rising and they led the domestic recession as housing prices crashed. This time I use both the ARDL model and standard "Granger causality tests" to determine if the direction of causality really runs from housing prices to domestic demand

Figure 1 Dynamic Forecasts for the Level of LPPI



Note: Ln PPI = natural logarithm of housing price index.

or vice versa. Detailed statistical results are available from the author.[5] Apart from these tests, Ho et al. (2003) have conducted other tests suggesting that a collapse in the prices of lower quality housing will spread to higher quality housing, and a collapse in transactions for lower quality housing will lead to a collapse in transactions in the entire housing market. These results are summarized in the Appendix.

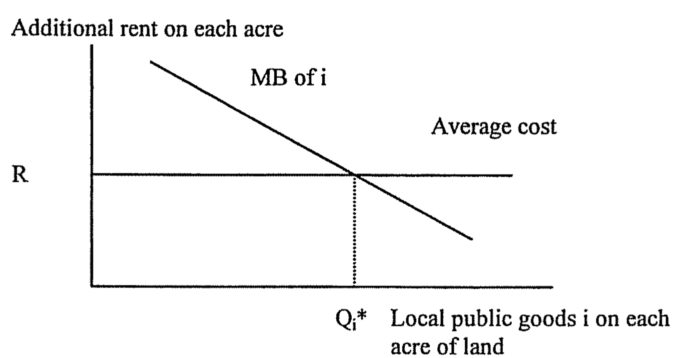
The Intuition Behind the Georgian Tax

The idea that land rent provides the basis for a "single tax" to finance local government services is owed to Henry George, the American social reformer who strongly argued against other forms of tax because they unavoidably discourage entrepreneurship and effort. Henry George believed that a tax on rent would be economically efficient, and that on land rent would generate sufficient revenue to cover all worthwhile expenditures of local governments.

There are alternative ways to prove the "Georgian tax principle." An intuitive way to demonstrate the logic of the theory is to assume that local government services are produced with constant returns to scale technology, so that the long-run average cost for any government service is a horizontal straight line. To the extent that the service generates *net* benefits in the sense that *local* residents feel better off with the services even though they have to finance them, these local public goods are socially justified and will enhance land rents. This is indicated in Figure 2. The consumers' surplus, indicated by the triangular area under the marginal benefit curve (MB) and above the average cost, is enjoyed exclusively by local residents. Because worthwhile local public goods enhance local land values, they can all be financed by a tax on land rent.

Figure 2 shows that, over-producing local public goods i, as well as under-producing it, will reduce the net consumers' surplus and will therefore reduce the value of land rents. The optimal amount of the public goods stands at Q*, where marginal benefit is equal to marginal cost (equal to average cost).

Figure 2 The Georgian Tax Principle



Note: R = additional rent on each acre resulting from local public goods.

Since the argument applies to all local public goods, I come to the general conclusion that local governments have an incentive to stay efficient, producing only those local public goods that will yield net benefits, and in optimal amounts, if their fiscal system aims at taxing land rent.

The benefits from the Georgian tax go beyond static efficiency. Over time, the efficiency of the fiscal system and the incentives given to entrepreneurs will enhance economic growth and the attractiveness of the local economy. Land and housing prices will climb even more. These higher land prices will not jeopardize the competitiveness of the economy. On the contrary, they will serve as testimony to its greater competitiveness relative to others.

Notwithstanding its advantages the Georgian tax principle has been subjected to serious criticism. O'Sullivan (2003:162), for example, named three arguments against the tax in his textbook *Urban Economics*:

- The Georgian tax will decrease the net return to the landowner to zero, making the market value of the land zero. This would be confiscatory.
- If the market value of land were reduced to zero, landowners would abandon their land, leaving the government to decide the issue of land use.
- It is difficult to disentangle land value and improvement value.

While these criticisms are indeed commonly raised against the Georgian tax principle, they represent a fundamental misunderstanding. The misunderstanding stems from a failure to distinguish "already captured" land rent from "to be captured land rent." The Georgian tax does not have to, and should not encroach upon land values that have already been paid for. When an investor A "buys" a plot of land from another owner,[6] the government fully respects the fact that he has paid the price and assumes the right of ownership. Suppose the investor sits on it for ten years, and then resells the land to another buyer without improving the plot in any way. Basic economics suggests that he will break even if he sells it at a capital gain that provides an internal rate of return equal to his opportunity cost of capital. There will be no need, under the Georgian tax principle, to "capture" this "unearned increment" because it represents no more than a compensation for the capital that he had used to purchase the plot. Indeed, by keeping the land and selling it later, this investor is performing the function of making available to developers a supply of land at a time and at a site that they want. This is a useful social function. From this perspective landowners who do nothing to their land should be entitled to the "warranted rate of return" (WRR) — equal to the opportunity cost of capital — on their land investments. Only those gains above the WRR should be subject to tax. The original owner who sold the plot to A is subject to such a tax. But this will not affect the price paid by A.

If A buys a plot of land from the government, such as through land auctions conducted in Hong Kong, the price he pays is the Georgian tax. The government respects the rights associated with the price paid and no additional confiscatory levy is necessary.

It is the essence of the Georgian tax principle to preserve entrepreneurial incentives. Thus, there is an explicit desire to avoid taxing the fruits from entrepreneurship, such as those that arise from improvements to a purchased site.

It is true that it is extremely difficult to disentangle the value of improvements from the value of the site. Any site in a city has almost no value but for the structure to be erected upon it. Of course, the location of the site is important, but the location is defined again in relation to the structures around and accessible from the site, and to the existing uses of these surrounding facilities. In principle, the value of the site is derived from the improvements made to it, and the value of the improvements is all derived from the fact that they are located relative to one another in a historically determined configuration. Any attempt to capture the rent on an empty site by taxing the value of the development will destroy the incentive to develop that site. This obviously is against the spirit of the Georgian tax principle.

Thus, in order to preserve the incentive to use the ingenuity of entrepreneurs, developers who have bought a site should be entitled to the bulk of the profits arising from the development, subject of course to the fact that the lease of the land will have an expiry date, and that the renewal of the lease will be subject to tax.

Should the profits from the development be subject to tax at all? The spirit of the Georgian tax principle, contrary to what may be expected, allows for such a profits tax, because part of the profits is likely to be newly arisen land rent. Under normal circumstances, as a city develops, economic growth will generate additional rent on the improved site, so that by the time the development project is completed and the units within the development are ready to sell, the market value of the units will reflect the enhanced value of the site. A tax on the profits of developers is to a large extent a tax on the newly created site rent. Because of generous allowances most enterprises in Hong Kong do not actually pay much in the way of profits tax.[7] Banks and developers are the largest payers of profits tax in Hong Kong and much of this tax consists of land rent.

Since land rent may increase over the short term and according to the Georgian tax principle this increase should be taxed, owners of properties should be subject to an increase in tax liability as rent increases. It is presumably impossible to disentangle the portion of profits that arises from entrepreneurship and the portion that arises from land rent per se. Still, there should be little dispute that a part of the returns beyond the WRR is likely to have been due to increases in land rent and should be taxed. That is why a moderate profits tax on the profits of developers is justified. In addition, during times when the housing market is hot, and excessive profits beyond the WRR are common, the government's collection of stamp duties not only helps to cool off the market but represents a significant tax on these unwarranted returns.

Thus, a modern system of taxation consistent with the Henry George idea of taxing land rent to finance local government expenditures would include the following elements:

- Low tax rates levied on incomes and consumption.
- Periodic sales of land leases from the government's land bank, with the lease terms defined over a stretch of time. This will make the lease sufficiently attractive to developers that they will place bids. At the same time, the potential is there for developers to reap profits from the lease without fear of being taxed away excessively.
- Landowners who buy the use of the land over a specific period but sell it without improving it are entitled to gains (comprising capital gains and income) equal to the opportunity cost of capital; excessive profits are, however, taxable. In Hong Kong, stamp duties have served as an imperfect but administratively simple substitute for a tax on excessive profits.
- Landowners who buy the use of the land and develop the land should pay a moderate profits tax on the net income generated from sale of the developed property. Under normal circumstances this profits tax would amount to a tax on the increase in land rent between the time the land is purchased and the time the properties in the development are ready to be sold.
- Property owners should have to pay again to use their properties beyond the term of the lease. The payment, called a land premium, is a tax on the land rent expected over the new period. In Hong Kong, this is just called the "government rent."
- Landowners who want to use their land beyond the stipulated intensity specified when they bought the use of the land have to pay additional premiums. In Hong Kong, landowners have to pay additional land premiums for relaxations to restrictions on land use or for the conversion of land use.
- Homeowners and landlords who enjoy the benefits of social progress, as reflected in higher land rent, should pay a tax that reflects this increase in rent. The "rates" of Hong Kong serve this very purpose without being excessively onerous.

The Hong Kong Tax System

Interestingly, this is essentially the revenue collection system in Hong Kong. The Hong Kong government prior to 1997 and the HKSAR government after 1997 auctions land leases from time to time. "Privately owned" land is therefore only leased from the government on what was known formerly as a Crown lease. Government rent (formerly Crown rent) is paid by the government lessee (the "owner") to the government in return for the right to hold and occupy the land for the term (i.e., duration) specified in the lease document. New land premiums are due on expiry of the old lease and when an application for a more intensive use of the land than originally stipulated in the lease is approved. At the time of writing, the profits of developers are subject to a moderate tax of 16.0%.

In Hong Kong, there is a tax called "rates." Rates are a tax levied on the "rateable value" of a property; that is, on the estimated annual rental value of a property (normally revalued yearly) at a designated valuation reference date. Rates are comparable to property taxes in North America. For the current financial year 2002/03, the percentage charge of rates is 5% and the designated valuation reference date is 1 October 2001. Rates are payable regardless of whether the property is owner-occupied or let. In assessing the rateable value, reference is made to other open-market rents agreed at or around the date of valuation, for similar properties in the locality, with due adjustments to reflect any differences in size, location, facilities, standards of finish and management. Rates, or any tax levied against the estimated rental value of land, represent a Georgian tax.

In practice a Georgian tax may be levied either on the stock value of the land, or on the flow value of the estimated annual rental income. It can be shown that, in the absence of uncertainty, the two approaches amount to the same thing. "Rates" in Hong Kong, like "property taxes" in North America, are levied on the appraised annual rental income of the property (implicit or otherwise). In the absence of such levies, the value of the land would have been higher, and the government would have collected a larger value at the land auction. In view of uncertainties, however, a tax on rental value seems to be superior to a reliance on the auction price to capture land rent. To investors, there is the risk of paying an excessively high price. To the government that auctions the land, there is the risk of getting an excessively low price. Because investors are the paying party it is more likely that the auction price is on the low side. The government, therefore, ends up as the loser, while individual investors must still face the risk that expected increases in rental value will not be realized. If levies are placed on rental values, they will not rise unless rental values actually go up. It is for a very good reason, therefore, that Hong Kong's land-based tax system consists of both a levy on the stock value and a levy on the appraised rental income flow. Altogether, the 2002/03 valuation list includes approximately 2 million assessments comprising about 2.61 million units.

Apart from rates, many property owners pay an additional tax, called government rent after the handover of sovereignty in July 1997. Under the Sino-British Joint Declaration, otherwise non-renewable land leases expiring before 30 June 1997 were automatically extended to 30 June 2047 without the need to pay an additional premium, but with a new government rent becoming payable from the date of extension. This provision also applies to other land leases granted since 27 May 1985, the date at which the Joint Declaration took effect. The assessment and collection of the new government rent is governed by the Government Rent (Assessment and Collection) Ordinance (Cap. 515). The government rent charged under the Ordinance is calculated at 3% of the rateable value of the property, and is adjusted according to any subsequent changes in the rateable value.

Table 5 presents the composition of government revenue from 1991/92 to 2001/02. We can see that land sales accounted for 6.6% to 22.6% of total government revenue in the period up to and including 1997/98. Indeed, in 1997/98 the revenue from land sales alone was $63.6 billion, while profits tax was $55.3 billion. Stamp duties and general rates accounted for $29.1

billion and $6.3 billion, respectively. With the crash in the housing market, all of these sources of revenue plunged dramatically after 1997/98 — reversing their earlier trend of growth.

Table 6 further lists estimated land-based revenues over the years. These estimates are based on reasonable assumptions regarding the land-based revenues from profits tax, rates, stamp duties, etc., and include the revenues from land development engaged in by government-owned enterprises such as the Kowloon-Canton Railway Corporation (KCR) and the Mass Transit Railway Corporation (MTR). The estimates suggest that land-based revenues throughout the public sector account for an average of nearly 60% of Hong Kong's government revenue.

The Georgian Tax and "High Land Price Policy"

There is an ongoing myth in Hong Kong called the high land price policy. This myth has persisted for at least three decades. Back in 1969-1972, when I attended the University of Hong Kong, the media regularly criticized the Hong Kong government for allegedly carrying out a high land price policy. Despite the supposedly outrageous land prices then, land prices continued to rise spectacularly right through 1997. Then, "the bubble burst." Today many Hong Kong people still blame the colonial government for perpetrating the policy, thus causing the bubble that has become the curse of Hong Kong after 1997.

As indicated in the earlier section, producing high land prices through producing the right mix and levels of local public goods is in the interest of the community. But a high land price policy through artificially restricting land supply is not. The optimal supply of land for development obtains when the marginal benefit of the supply is equal to the marginal cost. A study of the finances of the Hong Kong government indicates that it depended very much on the Georgian tax as the principal source of its revenue (Table 6), but there has never been an artificially created shortage of land. Indeed, no government can artificially boost land prices and keep them rising for 30 years against economic fundamentals.

Table 5 Government Revenue, 1991/92-2001/02

	1991/92		1992/93		1993/94		1994/95		1995/96		1996/97		1997/98		1998/99	
	$m	%	$m	%	$m	%	$m	%	$m	%	$m	%	$m	%	$m	%
Operating Revenue																
Profits tax	25,195	22.0	32,248	23.8	39,858	23.9	47,430	27.1	46,706	25.9	50,063	24.0	55,347	19.7	45,252	20.9
Salaries tax	17,417	15.2	20,200	14.9	22,505	13.5	23,624	13.5	26,258	14.6	28,709	13.8	30,159	10.7	25,063	11.6
Personal assessment	1,028	0.9	1,309	1.0	1,565	1.0	1,759	1.0	2,817	1.6	3,617	1.7	4,433	1.6	4,098	1.9
Property tax	1,230	1.1	1,304	1.0	1,511	0.9	1,482	0.9	1,638	0.9	1,577	0.8	1,585	0.6	1,333	0.6
Direct tax revenue	44,870	39.2	55,061	40.7	65,439	39.3	74,295	42.5	77,419	43.0	83,966	40.3	91,524	32.6	75,746	35.0
Betting duty	7,110	6.2	7,818	5.8	10,082	6.0	9,352	5.3	11,051	6.1	12,191	5.9	13,453	4.8	12,228	5.7
Stamp duties	9,569	8.3	13,409	9.9	17,976	10.8	12,713	7.3	11,215	6.2	20,461	9.8	29,097	10.3	10,189	4.7
Other indirect taxes	1,727	1.5	1,785	1.3	1,962	1.2	1,136	0.7	1,225	0.7	1,900	0.9	1,713	0.6	987	0.5
Indirect tax revenue	18,406	16.0	23,012	17.0	30,020	18.0	23,201	13.3	23,491	13.0	34,552	16.6	44,263	15.7	23,404	10.9
General rates	3,494	3.0	4,423	3.3	4,461	2.7	5,156	2.9	5,806	3.2	6,285	3.0	6,258	2.2	3,614	1.7
Duties	6,844	6.0	7,216	5.3	7,113	4.3	7,583	4.3	7,899	4.4	8,450	4.0	8,465	3.0	7,698	3.6
Utilities	6,650	5.8	7,174	5.3	7,997	4.8	8,392	4.8	7,199	4.0	6,608	3.2	6,735	2.4	4,400	2.0
Fees and charges	7,170	6.3	8,015	5.9	8,627	5.2	9,562	5.5	9,879	5.5	10,766	5.2	11,279	4.0	10,565	4.9
Other non-tax revenue	9,557	8.3	12,587	9.3	12,714	7.6	13,986	8.0	13,345	7.4	14,566	7.0	20,902	7.5	19,708	9.1
Non-tax revenue	33,715	29.4	39,415	29.1	40,912	24.6	44,679	25.5	44,128	24.5	46,675	22.4	53,639	19.1	45,985	21.3
Investment income	2,982	2.6	1,767	1.3	3,387	2.0	4,942	2.8	5,910	3.3	5,616	2.7	14,982	5.3	31,648	14.6
Total Operating Revenue	99,973	87.2	119,255	88.1	139,758	83.9	147,117	84.1	150,948	83.8	170,809	82.0	204,408	72.7	176,783	81.8
Capital Revenue																
Land sales	8,945	7.8	8,855	6.6	18,493	11.1	19,104	10.9	19,411	10.8	26,995	12.9	63,620	22.6	19,251	8.9
Other capital revenue	5,781	5.0	7,201	5.3	8,351	5.0	8,776	5.0	9,686	5.4	10,554	5.1	13,198	4.7	20,081	9.3
Total Capital Revenue	14,726	12.8	16,056	11.9	26,844	16.1	27,880	15.9	29,097	16.2	37,549	18.0	76,818	27.3	39,332	18.2
Total Revenue	114,699	100.0	135,311	100.0	166,602	100.0	174,997	100.0	180,045	100.0	208,358	100.0	281,226	100.0	216,115	100.0

Note: Data for 2001/02 are based on the latest forecast of the revised estimates.

Source: Task Force on Review of Public Finances (2002).

Table 5 Government Revenue, 1991/92-2001/02 (continued)

	1999/2000		2000/01		2001/02	
	$m	%	$m	%	$m	%
Operating Revenue						
Profits tax	37,699	16.2	42,969	19.1	44,500	25.6
Salaries tax	24,831	10.6	26,303	11.7	28,400	16.4
Personal assessment	3,216	1.4	3,455	1.5	3,900	2.2
Property tax	1,168	0.5	1,143	0.5	1,100	0.6
Direct tax revenue	66,914	28.7	73,870	32.8	77,900	44.8
Betting duty	11,938	5.1	12,630	5.6	11,380	6.5
Stamp duties	12,116	5.2	10,911	4.9	8,830	5.1
Other indirect taxes	778	0.4	760	0.3	870	0.5
Indirect tax revenue	24,832	10.7	24,301	10.8	21,080	12.1
General rates	7,132	3.0	14,428	6.4	12,400	7.1
Duties	7,377	3.2	7,293	3.2	6,910	4.0
Utilities	3,326	1.4	3,297	1.5	3,440	2.0
Fees and charges	10,896	4.7	10,973	4.9	10,970	6.3
Other non-tax revenue	17,941	7.7	17,642	7.8	18,740	10.8
Non-tax revenue	46,672	20.0	53,633	23.8	52,460	30.2
Investment income	36,778	15.8	19,516	8.7	0	0.0
Total Operating Revenue	175,196	75.2	171,320	76.1	151,440	87.1
Capital Revenue						
Land sales	34,810	14.9	29,531	13.1	8,550	4.9
Other capital revenue	22,989	9.9	24,209	10.8	13,840	8.0
Total Capital Revenue	57,799	24.8	53,740	23.9	22,390	12.9
Total Revenue	232,995	100.0	225,060	100.0	173,830	100.0

Table 6 Land-based Revenue as Percentage of Total Revenue, 1971/72-1998/99

	Land and Property Related Revenue ($m)			Total Revenue ($m)	Land Revenue as % of Total Revenue		
	Direct	Indirect	Total		Direct	Indirect	Total
1971/72	1,131	236	1,367	3,541	31.9	6.7	38.6
1972/73	1,983	346	2,329	4,936	40.2	7.0	47.2
1973/74	1,213	598	1,811	5,241	23.1	11.4	34.6
1974/75	1,210	525	1,735	5,875	20.6	8.9	29.5
1975/76	1,486	590	2,076	6,520	22.8	9.0	31.8
1976/77	2,096	772	2,868	7,494	28.0	10.3	38.3
1977/78	4,776	956	5,732	10,233	46.7	9.3	56.0
1978/79	5,340	1,550	6,890	12,557	42.5	12.3	54.9
1979/80	7,238	1,994	9,232	16,796	43.1	11.9	55.0
1980/81	23,524	3,974	27,498	30,290	77.7	13.1	90.8
1981/82	22,839	5,135	27,974	34,313	66.6	15.0	81.5
1982/83	13,080	4,140	17,220	31,098	42.1	13.3	55.4
1983/84	8,443	3,166	11,609	30,400	27.8	10.4	38.2
1984/85	12,811	3,022	15,833	36,343	35.3	8.3	43.6
1985/86	15,596	3,793	19,389	43,695	35.7	8.7	44.4
1986/87	15,340	5,233	20,573	48,603	31.6	10.8	42.3
1987/88	20,141	7,754	27,895	60,877	33.1	12.7	45.8
1988/89	34,593	9,374	43,967	72,658	47.6	12.9	60.5
1989/90	24,659	10,506	35,165	82,430	29.9	12.7	42.7
1990/91	18,389	11,014	29,403	89,524	20.5	12.3	32.8
1991/92	48,875	16,654	65,529	114,700	42.6	14.5	57.1
1992/93	40,804	23,280	64,084	135,311	30.2	17.2	47.4
1993/94	98,179	30,641	128,820	166,602	58.9	18.4	77.3
1994/95	73,575	28,300	101,875	174,998	42.0	16.2	58.2
1995/96	103,866	27,614	131,480	180,045	57.7	15.3	73.0
1996/97	127,587	35,922	163,509	208,359	61.2	17.2	78.5
1997/98	158,004	38,446	196,450	275,220	57.4	14.0	71.4
1998/99	52,003	23,747	75,750	207,810	25.0	11.4	36.5
Total	938,781	299,282	1,238,063	2,096,468	44.8	14.3	59.1

Sources: Compiled and estimated by the author from official sources.

According to the Georgian tax principle a tax on land rent will not increase the total cost of land for users. The tax only changes the distribution between the landowner and the government. Any increases in the land rent tax will reduce the rent captured by the landowner. Conversely, a decrease in land rent tax will, other things being equal, benefit the landowner. Users would appear to be indifferent about who collects the land rent.

But other things are not equal. If the tax on land rent replaces a tax on income, particularly income from entrepreneurship and on labour, enterprise and work will be enhanced. This will boost productivity growth, economic growth, and lend further support to land values.

As a monopoly supplier of land, it is true that the government can restrict land supply and boost land prices. But this increase in land prices is a one-off event and should not translate into year-in, year-out increases.

What, then, was the driving force behind the spectacular increase in property values over the three decades to 1997? Does this represent a bubble that had to burst sooner or later?

The factors are many. Commonly cited factors include Hong Kong's low tax rates, the relative political and social stability of Hong Kong, an efficient civil service, the rule of law and efficient market institutions, strong economic growth and inflation. Of these factors, low tax rates is linked to the use of the Georgian tax as a key source of Hong Kong's revenue. The vibrant economy prior to 1998 can also be attributed to the Georgian avoidance of taxing entrepreneurial profits and the Georgian incentive for the government to supply only rent-enhancing local public goods. While all of these factors were positive for the long-term prospects of the economy, high inflation was not. High inflation had been a worrying factor since 1989 and was obviously a destabilizing factor, even though it was on a clear downward trend after 1991 (Ho, 1995).

If the Georgian tax principle is right, by virtue of the unleashing of entrepreneurship and productivity Hong Kong would enjoy faster economic growth,[8] and more rapid increases in land value than other economies on account of the strong economic growth and the high savings/investment rate. Low tax rates would encourage people to invest and to save. The prospect of rising land and property values would also encourage people to invest in properties. Meanwhile, the government would collect sizable revenues that would allow it to provide local public goods that would further enhance land prices.[9]

The result of the "stability and prosperity" will be high and rising land prices. A key question is whether this constitutes a bubble.

What is a bubble? A bubble must be price inflation that cannot stop until it bursts — leading to a collapse in prices. Prices in general will rise and fall. In particular, speculation may cause prices to overshoot and then a large correction may take place. But these normal increases and declines are not bubbles. To qualify as a bubble the price movements must be fuelled by false expectations ("irrational exuberance" as Alan Greenspan called it and as Shiller (2000) titled his book) and by excessive lending that cannot be sustained. While there was obviously a high degree of "irrational exuberance" prior to 1998, excessive lending by banks and other financial institutions was conspicuously absent. Banks typically under-appraised property values and lent no more than 70% of the appraised values. Moreover, in addition to holding the mortgaged property as collateral, many banks require a guarantor. This explains why despite the huge drop in housing prices not a single bank failed in the wake of the collapse of housing prices.

Chris Patten and Tung Chee-hwa

The Tung Administration frequently referred to the collapse of the housing market after 1997 as a legacy of the "bubble years" under former Governor Chris Patten. Did Patten's "go-go" years contribute to the downfall of the Hong Kong economy and the huge fiscal deficits? An examination of the events preceding the handover suggests that there was indeed a time bomb. But the nature of this time bomb was not what the Tung Administration understood it to be.

The Dynamics of Land Price Increases

People refer to bubbles when they observe a rapid rise in the prices of assets followed by a major collapse in the same prices.[10] The phenomenon is called a bubble because it is believed that the fundamental economic factors do not warrant the highly inflated prices, which will have to fall back to realistic levels.

Analytically, however, the term bubble is a rather difficult concept. To be meaningful, a price bubble must be one that is inherently unsustainable and which can be predicted to burst under specified conditions. We have seen price increases that have been going on for decades creating a situation that has been described all along as a bubble, yet the bubble did not burst. But if no one can predict when the bubble will burst and under what conditions it will do so, "bubble" becomes only a descriptive term to be used after the fact. It is no longer a scientific concept.

We know that prices are determined by supply and demand. To say that a price increase is a bubble would have to mean that the price increase is temporarily sustained by factors that cannot last. What are these factors?

One factor may be over-zealous bank credit, which fuels demand. Such lending cannot keep expanding because it will eventually create too much exposure to risks for the lenders.

Another factor may be that the purchasers are in a state of "irrational exuberance," as Alan Greenspan described of the equity market in one of his testimonies before Congress. Irrational exuberance is a state of mind that cannot be sustained over a long stretch of time.

Still another factor may be the "cobweb" effect of delayed supply increases. If developers are prompted by highly profitable prices to overproduce, and if production takes time so that the overproduction has plenty of time to build up, the excess supply will eventually depress prices. The larger the

overproduction, the greater will be the price decline and the longer will it take for the market to recover.

These factors can interact, so that people in a state of irrational exuberance may want to borrow to buy the inflated assets, while the sharply pushed-up prices will encourage more housing starts. There is some evidence that these factors were at work in Japan. Okina et al. (2001) found "extremely aggressive" behaviour in financial institutions after 1987/88, which was prompted by financial deregulation on the one hand and declining profitability on the other. They also found considerable monetary easing interacting with and mutually reinforcing a strong equity and land market. The speculative pressures on land prices were further exacerbated by tax laws that discouraged transactions and thus held back supply, and weak or faulty corporate governance that failed to counterbalance the aggressive behaviour of banks and firms. To describe a price increase as a bubble implies the existence of dynamics that caused the formation of the bubble and eventually its collapse. The story told by Okina et al. appears to fit this description.

What was the situation like in Hong Kong? Banks were not aggressive in their lending activities before the collapse, and there was no sign of oversupply through 1999 — two years after housing prices started to plunge. Indeed, most banks appraise properties below market prices and provide lending of up to 60% or 70% of the appraised value of a property. Mortgage interest rates were set at prime plus up to 2% — an extraordinarily high rate in comparison with the rates charged in North America. The banks charged higher interest rates on properties that are not the principal residences of the mortgagers. They also frequently require a guarantor in addition to using the mortgaged property as collateral. The M2 money supply grew at an average annual rate of less than 15% in the period 1990-1997, which is less than half of the rate that prevailed in the 1980s. The regulators were wary about excessive speculation and had introduced policies to curb it. In particular, in mid-April 1994 a Task Force on Land Supply and Property Prices was set up with the specific objective of coming up with measures to curb speculation and stabilize housing prices. It was noted that about 10% of sale and purchase agreements presented for stamping in the two years between February 1992 and March 1994 involved short-term re-sales. About 23% involved new properties offered for sale after 31 January 1992. About 18% of the units in large developments completed in 1992 were still vacant at the end of April 1994, i.e., over a year. These figures were regarded as prima facie evidence of speculation and hoarding. Among other measures, the government announced the following:

- The arrangement of private sales is widely believed to have fuelled speculation. The quota will be reduced to 10%. No re-sale will be allowed before the Certificate of Compliance or the consent to assign is given, whichever is the earlier.
- To reduce the opportunities for speculation, forward sales will be reduced to not more than nine months before the completion date to be specified in the Sale and Purchase Agreement. No re-sale will be allowed before the Certificate of Compliance or the consent to assign is given, whichever is the earlier.
- To increase the cost to speculators the initial deposit will be fixed at 10% of the purchase price and 5% will be forfeited if the purchaser fails to sign the formal sale and purchase agreement or enters into a Cancellation Agreement with the developer.
- To reduce speculation in carparking spaces, no forward sales of carparking spaces will be allowed unless they are sold with the residential units.
- To exercise control over pre-sale of flats from redevelopment, the Consent Scheme will be extended to cover substantive modifications and exchanges involving residential accommodation.
- The Legal Advisory and Conveyancing Office will step up monitoring of the Consent Scheme, and a coordinated information system will be established to monitor speculative activities in the market.
- The Administration will continue to examine legislative measures to dampen speculation and consider the Law Reform Commission's proposals on legislation relating to sales descriptions (Task Force on Land Supply and Property Prices, 1994).

Notwithstanding these measures, housing prices resumed their apparently relentless climb, after a brief though significant decline in 1994/95. It is important to find the reasons behind this strength in housing prices and to determine if high housing prices were a problem, the extent of the problem if it was a problem, and the extent to which it represented an increase in rent, reflecting the benefits of local public goods and other local external economies generated by the natural development of the society.

To do this we need a model of the housing market and need to fit it to Hong Kong's situation. We need to recognize, first, that housing consists of a whole spectrum of dwelling units that ranges from very modest homes to luxurious flats and houses. They are located in locations with different degrees of access, amenities and attractions. To simplify the analysis, we can regard housing as consisting of units that fit into different tiers of quality. Housing with slightly higher or slightly lower qualities are good and valid substitutes for households of a given socio-economic class. Housing of a much lower quality is not a substitute because the quality is too poor. Housing of a much higher quality is not a valid substitute because the cost is too high.

Of course, PRH tenants did not have to invest in housing in Hong Kong. The fact that they did suggests that it was attractive for them to invest in Hong Kong's residential market prior to 1997. Similarly, there were anecdotal reports that speculative money flowing into Hong Kong from mainland China and from Southeast Asian countries were helping to boost prices. The large injections of money, from local savers as well as from overseas, may be attributed to speculation or to a recognition of Hong Kong's unique position relative to a rapidly growing mainland, its excellent infrastructure, political and social stability, commitment to low tax rates, a workforce with an excellent work ethic, etc. There is nothing wrong with the latter.

Indeed, that is exactly the result expected when the economy adopts an efficient Georgian tax. There are, of course, risks associated with speculation. But as long as banks do not over-lend, market excesses will be corrected, just as has happened time and again prior to 1997. Historically, Hong Kong had, for example, seen speculative excesses in the late 1970s that stretched affordability to the limit, when housing prices roughly tripled from 1976 to 1981. However, in a stable policy environment without excessive lending and excessive building, there should be no worries that a catastrophic bubble will emerge.

What Caused the Plunge?

Yet prices did plunge and failed to recover after 1997. The official story was that the AFC caused the bubble to burst. Yet apart from the coincidence in timing there is just no convincing explanation for why the AFC caused the relentless decline in housing prices after 1997.

It is true that the AFC caused the stock market to lose about a half of its value in the months from August 1997 to January 1998, and it is true that inter-bank interest rates briefly shot up to over 280% in October 1997 (Jao, 2001:61). But Hong Kong had seen declines in the stock market amounting to 90% from 1973 to 1975. The economy nevertheless registered positive growth every year from 1963 right through to 1997. It also recovered strongly every time, thus giving Hong Kong a legendary reputation for resilience. While inter-bank interest rates did jump to very high levels in 1997, mortgage rates never rose beyond 12% — at a time when inflation was still running in excess of 5%. And, as mentioned before, unlike previous financial crises when several banks had failed, during or in the wake of the AFC not a single licensed bank failed.

The collapse in housing prices can be attributed to two principal causes; one relating to a policy that dramatically sapped demand, the other to a policy that dramatically pushed up supply. Both policies were really not warranted at the time, with or without the AFC. The policy that dramatically sapped demand is the TPS, a policy that effectively reversed the "richer tenants pay higher rent" policy that prevailed before its launch and one that immediately made it less attractive for richer tenants to buy HOS housing or private housing.[11] This TPS offered sitting tenants an opportunity to buy their own units at as much as an 88% discount from the estimated market price. Given this offer, HOS housing looked ridiculously expensive. Predictably, in the wake of the announcement of TPS, thousands of HOS buyers gave up their deposits in 1998. This had never happened before. Indeed, buyers had always regarded winning the opportunity to buy HOS housing as equivalent to winning a lottery ticket. When HOS housing prices collapsed, their owners could no longer offer the kinds of prices that they had been paying to trade up to private housing. Private housing prices therefore collapsed. More importantly, turnover dropped dramatically because sellers not aware of the fundamental change continued to ask what had now become unrealistic prices. Developers, however, were fully aware of the shrinkage in demand, and slashed prices aggressively.

This took place in the early 1998, when no excess supply was visible. By 2000, however, the effects of an excess supply that was part of the policy to dampen housing prices set in. The dramatic increase in supply was deliberate, but it was not warranted — with or without the AFC, notwithstanding the large run-up in housing prices prior to 1998, because there had never been a physical shortage.

I have conducted a number of statistical tests to test (1) the Georgian hypothesis that the run-up in housing prices prior to 1997 was driven by an efficient government that inspired confidence and increased Hong Kong's attractiveness, and by a strong export performance, and (2) the hypothesis that the so-called "collapse of the housing price bubble" was policy-driven. These tests are summarized in the Appendix. Paradoxically, however, the greatest plunge in housing prices occurred in 1998, when the supply of new housing was relatively small. It is the hypothesis of this author that the very low prices being offered to PRH tenants to buy their own units had a great role to play here. Overnight, the TPS rendered HOS housing totally unattractive. Table 7, which shows the magnitude of the profits made by some TPS owners who had sold their units over a period of rapidly falling housing prices, testified to the extremely low prices that allowed TPS buyers to reap huge gains while the housing market languished. This lends support to the hypothesis that PRH tenants were responsible for the high prices that prevailed in and before 1997.

Patten and Tung

The two-pronged attack on the housing market after 1997, namely an attractive public housing privatization scheme, which sapped demand, and a drastic increase in the supply of housing, which created a glut, had been conceived during the administration of Patten. It was left to Tung to implement them. The bomb was planted — most probably with no malicious intent — by Chris Patten. Tung Chee-hwa, unfortunately, did not realize the lethal nature of the seeds of a major disaster.

Table 7 Profits from the Sale of TPS Units

Estate	Unit	Purchase Date	Purchase Price ($'000)	Re-sale Date	Re-sale Price ($'000)	Profit (%)
Wah Kwai	Block 2 high	July 1998	317	May 2001	920	190
Cheung On	Block 8 middle	June 1998	209	January 2002	600	187
Wah Kwai	Block 2 high	February 1999	310	December 2001	880	185
Cheung On	Block 2 high	July 1998	234	October 2001	600	156
Wah Kwai	Block 2 high	July 1998	346	September 2002	880	154

Source: Centaline Property Agency and the Land Registry, cited in *Apple Daily*, 2 February 2003.

There was just too much talk of how housing prices had become excessively high, that the immediate reaction was not to ask what was causing the situation and what the consequences of changing it would be. The immediate reaction, after Tung took up office, was to bring prices down and to increase the level of homeownership. Tung was not aware of the fact that homeownership had been increasing steadily over the years, despite the increasing "unaffordability of housing." Indeed, the rate of homeownership was at a historic high when Tung took up office.

In August 1991, an early version of the TPS, called the Sale of Flats to Sitting Tenants Scheme (SFSTS), was offered to tenants on the condition that 50% or more of the tenants in each selected block would take up the offer to purchase. Given the attractiveness of the deal that PRH tenants were enjoying then, it was not at all surprising that the scheme failed to arouse much interest. The HA then vowed to sweeten the scheme and relaunch it. Eventually, after a review of the scheme, a modified SFSTS was endorsed by the HA in 1992 and submitted to the Executive Council. The Executive Council chose not to endorse it. The SFSTS was pronounced dead three years after it had first been approved in principle by the HA.

In July 1991, the Homeownership Committee under the HA also approved an Option to Rent or Buy Scheme, under which qualified PRH applicants were offered the choice of renting or buying a flat when their turns came for allocation of PRH flats. Prices and conditions were similar to the HOS. The scheme was subsequently endorsed by the HA in April 1992. The pilot scheme launched in December 1992 consisted of two Harmony blocks with a total of 1,216 flats in Tseung Kwan O and Tin Shui Wai. In the end, 560 flats were sold (HA, 1993:60). According to one member of the HA, the response was unsatisfactory and it was clear that given the much higher cost of buying compared to renting, there was little incentive to buy instead of taking up PRH (Leung, 1993:290-91).

One may well wonder what would have happened if the TPS had been implemented during Patten's rule. My prediction is that it would have been disastrous, although the effect would have been smaller because housing prices had not risen by quite as much as when Tung took office. The dilemma for the authorities was that if the terms of purchase were not attractive enough the response would be small, and there would be little point in launching the scheme; on the other hand, if the terms of purchase were really attractive, such as were offered in December 1997, it would kill any incentive to buy HOS housing.

Apart from a lethal TPS in the making during Patten's rule, it must be noted that there were in fact plans to drastically increase housing supply. Consider the following excerpt from the official 1997 Hong Kong annual report:

> To enable the government's housing production target of producing 511 000 new flats in the six-year period from April 1995 to April 2001, sufficient sites for housing development have been identified (Hong Kong Government, 1997:190).

It is interesting to note that 511,000 new flats for six years translates almost exactly to 85,000 units per year.

So, interestingly, Tung is not the pathbreaker he was perceived to be! He only implemented the unfinished policies left over by Patten. Patten had read the housing market boom as predominantly due to speculation. Tung followed suit. Patten wanted to boost the supply of housing by 85,000 units per year. Tung announced it. Patten's regime had an unfinished dream of privatizing public housing. Tung followed it through. Tung, after all, was a staunch supporter of Patten's housing policies. What is regrettable is that Tung did not have an independent mind, and failed to recognize his policy blunders even after it was graphically explained to him.

Policies to Redress the Problem

Before long, the HKSAR government was aware of the negative effects on the economy of the dramatic decline in housing prices and obviously sought to redress the problems in its first budget, announced in February 1998. But it was still totally unaware of the implications of the collapse of the housing market on its

fiscal position. The official budget summary confidently stated that "Hong Kong's tradition of prudent fiscal policies is being maintained. We will continue to maintain strong reserves to guard against future uncertainties, not run up debts. Overall growth in Government spending over time will be kept within rate of growth in the economy." As things turned out, however, the government's fiscal position deteriorated dramatically and, by 2002, it is running a fiscal deficit of about 5% to 6% of GDP.

The 1998 budget must be the most stimulative budget in all of Hong Kong's history. The official summary put it succinctly: "[T]he 1998 Budget has cut taxes by $13.6 billion for the 1998-99 financial year and by nearly $100 billion up to 2001-02.... Total public expenditure will increase by 11.2%." Homeowners were offered an unprecedented $100,000 mortgage interest allowance to be deducted from taxable income each year for up to five years. Basic allowances were increased by 8% while child allowances and allowances for dependent siblings were increased by 11.1%. The single parent allowance was increased by 44%. The annual depreciation allowance for commercial buildings was doubled. The profits tax rate was reduced by 0.5% to 16%. Rates were cut from 5% to 4.5%. Notwithstanding this dramatic fiscal stimulus, however, the economy suffered an unprecedented shrinkage of 5.0%, in contrast to the projected 3.5% growth.

By the end of May 1998, the government announced officially that the decline in housing prices was enough. The Secretary for Housing, Dominic Wong, said that:

> [T]he Government has reviewed residential property market developments in recent months and has noted that the highly inflated value of property in Hong Kong has come down substantially as a result of the monetary crisis and the economic downturn affecting many parts of South-East Asia. We have therefore reviewed the series of anti-speculation measures introduced under the Consent Scheme in mid-1994 and the beginning of 1997, and have concluded that some relaxation is desirable. We have decided to extend the pre-sale period of uncompleted flats from the present 15 months to 20 months before the estimated date of completion of the development

> project. Property developers can now take advantage of the longer pre-sale period to sell flats earlier, thus reducing interest cost and improving liquidity. The extended period will also provide [a] wider choice of flats to home buyers (Wong, 1998).

Four measures previously introduced to curb speculation were suspended with immediate effect. In particular, the prohibition of re-sale of uncompleted flats before assignment was suspended. Wong said:

> The measure was introduced a few years ago in order to clamp down on excessive speculation in the primary market. Speculative activities have now subsided. We feel that the measure can be suspended under the present climate to allow the market to operate more freely and to give home buyers greater flexibility in responding to current market conditions. This measure will help particularly those purchasers who are in the process of trading up to seek a better home and have faced financial difficulty in keeping two flats. Secondly, limiting flat sale to companies to the last 15% of each batch of flats for pre-sale is suspended. This measure was originally designed to benefit individual buyers by giving them priority to buy flats in situations of over-subscription and to clamp down on speculation through shell companies. This measure is not necessary now as the proportion of company purchasers is consistently well below 15%. Thirdly, the requirement of developers to put all flats for pre-sale onto the market within six months of the date of consent given is suspended. This measure is considered unnecessary under the current market conditions as developers are now keen to sell flats earlier. Fourthly, the requirement of developers to put onto the market not less than 20% of flats approved for pre-sale for each batch of flats for pre-sale is suspended. This will allow developers greater flexibility in the pricing and sale of flats under the prevailing cautious market sentiment. In view of the recent slowdown of the market and in addition to the relaxation announced, the Government will also consider, on a case by case basis, applications for exemption from the requirement to conduct balloting in the pre-sale of higher value flats. This will give developers greater flexibility to market higher value flats under current market conditions. As this relaxation will be applicable only to a very small number of projects, the sales procedure of most development projects targeted at the mass market will not be affected. The new arrangements will also apply to those development projects for which consent for pre-sale has been given. Overall, the arrangements will have a positive impact on the property market. We will monitor the effect of relaxation to ensure that the property market will continue to operate in good order. They will be reinstated if such order is disturbed in future (Wong, 1998).

From an analytical point of view, all of these measures were really beside the point, while the reference to "prudent fiscal policy" was totally unwarranted, given the policies to dramatically increase housing supply and the policies to dramatically reduce housing demand, as well as the dramatic decline in fiscal revenue to be expected with a housing market slump. Predictably, the government ran into structural deficits that can hardly be redressed through tax increases or spending cuts. Indeed, tax increases and spending cuts would aggravate the problem of inadequate aggregate demand to sustain full employment and will perpetuate a vicious circle of recession-deflation, while spending cuts to the extent required to address the problem would generate social distress and unrest.

It took five years for the HKSAR government to realize its policy errors. On 13 November 2002, the new Secretary for Housing, Planning and Lands, Michael Suen, announced a nine-point package that, for the first time, addressed the real problems besetting Hong Kong. These measures include:

- The suspension of periodic land auctions for an indefinite period and the suspension of land sales through the Application List through the end of 2003.
- The suspension of land development tenders by both the KCR and the MTR along their routes through the end of 2003; in the future, property development by the railway companies will be subject to coordination by the government.
- Giving PRH applicants the option of receiving *rental subsidies* in lieu of being offered a subsidized rental flat; in the next few years a yearly production of over 20,000 units of PRH will be maintained.

- Indefinite suspension of the sale and production of HOS housing; outstanding stock will be disposed of through market-friendly means.
- The continuation of the Home Assistance Loan Scheme.
- The suspension of all housing development projects involving mixed public and private units; the Flat for Sale Scheme operated by the Hong Kong Housing Society and the Private Sector Participation Scheme will also be suspended; and all outstanding stocks will be converted to alternative uses.
- The suspension of the TPS after the sale of Phases 6A and 6B in 2003.
- The amendment of legislation to encourage investment in private rental housing.
- The abolition of the two remaining anti-speculation measures introduced in the early 1990s. These included restrictions imposed on internal sales and the requirement that each buyer may buy no more than one residential unit and two parking spaces (Suen, 2002).

Unfortunately, these measures came too late. Already, personal bankruptcies (sum of ordered bankruptcies and applications for bankruptcy) were running at the rate of around 150 a day in 2002, amounting to well over 50,000 a year (Table 8), more than double that in 2001. Many of the PRH tenants who had been well off and could have afforded to buy a private home had become a lot poorer because of salary cuts or unemployment and many had been drawing down their savings. I had predicted that the longer the government waits to put right its wrong policies, the longer it will take for the economy to respond (Ho, 2002). The TPS policy that was intended to increase homeownership ended up destroying wealth and destroying homeownership. It was intended to save the government money but ended up creating a disheartening and scary budget deficit for the government.[12] The policy announced by Suen created empty flats and reduced business for commercial properties in the HOS development. A development in Yau Tong had 27 building blocks altogether, but by early 2003

Table 8 Bankruptcies in Hong Kong, 2002

Month	Petitions Presented	Bankruptcy Orders Made
Jaunary	2,121	1,251
February	1,616	1,000
March	2,286	1,790
April	2,223	1,769
May	2,439	2,294
June	2,334	2,069
July	2,354	2,234
August	2,439	2,440
September	2,137	2,580
October	2,421	2,777
November	2,441	2,465
December	2,111	2,659
Total	26,922	25,328
Percentage change over 2001	+104%	+177%

Source: Official Receiver's Office (http://www.info.gov.hk/oro/statistics/statistics.htm).

had only seven rental blocks housing about 20,000 residents, some 20% of the target population. With 20 blocks empty, commercial tenants were losing money each day and were crying for reduced rents (*Ming Pao Daily News*, 11 February 2003).

There is no doubt that Suen understands how the housing market works. He said that the present regulations defining the "well-off PRH tenants" not qualified to receive further subsidies as those who have three times the Net Asset Limit and 84 times the Waiting List Income Limit were too lax. He explicitly said it would be desirable if the richer tenants could move out, thus vacating the units and allowing those in the queue to move in. He told the press that the current practice of not reviewing the economic status of tenants until ten years after the tenants had moved in was out of date (*Oriental Daily News*, 28 January 2003).

Suen repeated in his many public appearances after the announcement of his nine-point measures that the government would "withdraw from the market" and would allow the free market to work.

Suen's nine measures are the right steps in the right direction. However, Hong Kong must now face a huge outstanding surplus stock of housing already built and in the pipeline (Table 9). It is clear that if this huge stock is unloaded to flood the market, the prices of flats will fall drastically. Unlike the prices of vegetables, however, when the prices of new flats decline, not only will the producers of the goods (farmers and developers) suffer, but so will the consumers — the homeowners. For homeowners already facing the problem of negative equity and the risk of losing their jobs, the further erosion of housing prices will force them to curtail their spending and to cut investment. Traditionally, the owners of many small and medium enterprises rely on mortgaging their homes to obtain credit and thus working capital. As housing prices keep falling, it is little wonder that business activity has also fallen greatly. By 2003, housing prices had already fallen by 65% from their peak values. Further declines will not only hurt over one million homeowners, but will also eliminate jobs, create more bankruptcies, and ultimately threaten the health of Hong Kong's banks. It is worrying that a hands-off attitude towards the cut-throat competition to unload flats might further ruin the economy and eliminate any chance for its quick recovery.

Provided that Hong Kong's developers understand the gravity of the situation as well as the fact that the new policies have now made it possible for the housing market to recover, and thus refrain from dramatically slashing prices, the Hong Kong economy will revive faster than most people expect, and the housing market will regain its former vibrancy — although prices will take many, many years to approach the prices reached at their peak in 1997. But can Hong Kong take the chance that developers will understand what to do? It is imperative that the government does something effective and does so soon.

Table 9 Number of Households and Housing Stock, 1987-2001 (Thousands)

Year	Number of Households	Housing Stock						Households minus Housing Stock
		Private Housing	Increase in Private Housing	Subsidized Sale Flats	Public Rental Housing	Increase in Subsidized Housing	Total Housing Stock	
1987	1,496.1	770	—	79	580	—	1,429	67.1
1988	1,532.6	804	34	84	596	21	1,484	48.6
1989	1,549.0	832	28	95	620	35	1,548	1.0
1990	1,559.0	864	32	115	651	51	1,630	-71.0
1991	1,603.1	884	20	131	667	32	1,682	-78.9
1992	1,640.0	919	35	147	680	29	1,744	-104.0
1993	1,677.7	946	27	162	673	8	1,781	-103.3
1994	1,729.1	962	16	182	679	26	1,822	-92.9
1995	1,783.0	1,003	41	192	689	20	1,884	-101.0
1996	1,864.5	1,030	27	210	693	22	1,932	-67.5
1997	1,922.8	1,040	10	224	698	19	1,961	-38.2
1998	1,961.5	1,056	16	242	706	26	2,004	-42.5

Table 9 Number of Households and Housing Stock, 1987-2001 (Thousands) (continued)

Year	Number of Households	Housing Stock						Households minus Housing Stock
		Private Housing	Increase in Private Housing	Subsidized Sale Flats	Public Rental Housing	Increase in Subsidized Housing	Total Housing Stock	
1999	1,998.9	1,072	16	288	682	22	2,040	-41.1
2000	2,037.0	1,099	27	327	688	45	2,114	-77.0
2001	2,078.4	1,153	54	377	694	56	2,224	-145.6

Notes: Data on the number of households are the averages of the statistics for the four quarters of the General Household Survey. The stock of permanent residential flats are as at the end of March.

Sources: Number of households: Census and Statistics Department (various years); Housing stock: HA (http://www.housingauthority.gov.hk/en/aboutus/resources/figure/0,,,00.html).

Actually, the cost of "mopping up" the excess supply of housing units is not really that great. I would propose that the government set up a Housing Market Stabilization Fund, which will operate independently and which will come into being through open subscriptions for bonds issued. With a total budget of, say, $100 billion, it would be possible to buy over 60,000 units at an average cost of $1.5 million. That is quite sufficient to eliminate the excess supply for units in this price range, thus lending support to the prices of most existing flats. The flats can then be rented out and the proceeds can pay for the cost of servicing the bonds. We do not have to worry about flooding the market with rental flats, because falling rents are far less of a problem than declines in asset values. Indeed, if rents decline the public will have a larger disposable income.

Apart from this, the government can consider offering HOS owners and "sandwich class flat" owners the opportunity to sell their units back to the government provided that they buy a second-hand unit. This will at once effect double the number of initial transactions. It will also reduce the write-offs for banks, boosting their profits and thus stock values, as well as boosting profits tax revenue. At the same time, the negative equity problem will be alleviated, making a recovery in the domestic economy possible. The transactions will also generate thousands of jobs, reducing unemployment and CSSA payments. They also yield significant stamp duty for the government.

These proposals are likely to be met with objections from economists and others who believe that a hands-off attitude is best for the economy. There are those who believe that housing prices should be allowed to find their natural levels and those who believe that a small government is better than a big government. But belief is no substitute for analysis. Economic analysis predicts that the huge overhang of supply must continue to bring prices down, and our econometric analysis tells us that this must continue to hurt domestic consumption and domestic investment. We will have higher unemployment, huge deficits and high bankruptcy rates. The negative wealth effect from slashing prices on new flats has hurt nearly everyone.

The responsible manner of responding to market forces is to follow the dictates of the market. The sharp decrease in prices is telling us there is just too much supply. We therefore need to respond by removing the excess supply.

Notes

1. Cumulative growth in Hong Kong from 1980 to 1987 was 66.5%. Cumulative growth in Hong Kong from 1990 to 1997 was 42.7%.
2. See http://cf.heritage.org/index/pastScores.cfm.
3. Legislator the Hon. Eric Li had criticized the public housing programme as costing the government too much and had based his argument on exactly this arithmetic.
4. The ten-year re-sale restriction period was shortened to five years in June 1999.
5. The results can be downloaded from the website http://www.ln.edu.hk/econ/staff/cvlsho.htm.
6. It is understood that the "purchase" of land entails the purchase of a bundle of specified rights, subject to a number of specified obligations. There is no presumption that the owner is free to do anything he wants on his plot, whether over a specified time or in the indefinite future.
7. Generally, all outgoings and expenses, to the extent to which they have been incurred by the taxpayer in the production of chargeable profits, are allowed as deductions. Capital expenditure on the renovation or refurbishment of business premises can be deducted from taxable earnings over a period of five years in equal instalments, commencing in the year in which the expenditure is made.
8. Chou and Wong (2001), using an improved method of estimation, found total factor productivity growth in Hong Kong to be much more impressive than suggested by studies such as those conducted by Young (1992, 1994, 1995). By directly accounting for and controlling the effects of factor accumulation, they found that total factor productivity growth over the period 1967-1996 ranged from 3.86% to 5.86% per year.

9. The government had been collecting stamp duties and profits tax in greater amounts than expected prior to 1997. In addition, *Ming Pao Daily News* (18 January 1997) reported that from 1992 to 1996 there were 30,000 cases of speculative transactions and the Inland Revenue Department had successfully collected $2 billion of taxes from 20,000 cases. It would try to track down the remaining 10,000 cases. The average gains per case amounted to $600,000 resulting in $100,000 of taxes. Wong Ho-sang told the Democratic Party that profits taxes from speculative transactions in property amounted to a yearly rate of $400 million or less than 1% of total profits tax.
10. Okina et al. (2001:397) recognized that different people use the term "bubble" to mean different things. For their purpose they characterized a "bubble economy" as one that exhibits the following three factors: a rapid rise in asset prices, the overheating of economic activity, and a sizable increase in money supply and credit.
11. In 1997, about 13% of Hong Kong's population were living in HOS housing. HOS housing constituted 11.4% of the permanent housing stock in 1997.
12. The HA anticipates a deficit of $283 million in 2004/05, which is projected to rise to $919 million by 2006/07.

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Appendix: Summary of Statistical Results from Tests Performed

Test	Statistical Results	Where Reported
Testing the relationship between exports and housing prices	Before 1997: Exports drive housing prices. (ARDL) After 1997: Actual values diverge from predicted values increasingly over time.	Available from the author.
Testing the relationship between domestic demand and housing prices	Domestic demand movements do not cause housing price movements. Housing price movements cause domestic demand swings. (Granger/Johansen and ARDL)	Available from the author.
Testing the relationship between government expenditures and housing prices	Housing prices drive government expenditures. (ARDL)	Available from the author.
Testing the relationship between lower-tier housing prices and higher-tier housing prices	Lower-tier housing prices typically drive higher-tier housing prices, but not the other way round.	Ho et al. (2003).
Testing the relationship between lower-tier home transactions and higher-tier home transactions	Lower-tier home transactions typically drive higher-tier home transactions, but not the other way round.	Ho et al. (2003).
Testing the relationship between second-hand private home transactions and HOS "free market transactions"	A very significant positive relation was found.	Yeung (2001:65).
Testing the causes of the plunge in second-hand home transactions	Regression shows TPS has had a more significant and greater impact on second-hand home transactions than has the AFC, lending credence to the hypothesis that TPS played a key role in "freezing" turnover in the housing market.	Ho and Tse (2002).

An Inquiry into the Relationship between Hong Kong's Current Economic Crisis and Housing Policy

Abstract

The recession in Hong Kong beginning in 1998 is unprecedented not only because it represents the first incidence of negative growth in GDP since official growth data became available in 1963, but also because of its depth (-5.0%) and because of the failure of the economy to recover from the recession. The official explanation for the recession is the Asian Financial Crisis (AFC), but the AFC can hardly compare with the many crises that Hong Kong has weathered in the past, including the Cultural Revolution of the 1960s, the oil price shock of the 1970s and the resulting global recession (the Hang Seng Index fell more than 90% from 1973 to 1975), and the real banking crises of the 1960s and 1980s, which witnessed the failure of a number of banks. By contrast, during the AFC, not a single licenced bank failed.

An alternative explanation of the recession is given by the author, who argues that a misguided housing policy led to the collapse of the housing market and is the cause of its failure to recover. Evidence is presented for the theory that the Tenants Purchase Scheme (TPS), which offered sitting tenants the opportunity to buy their own units at deeply discounted prices, played a key role in the collapse of the housing market. Public housing tenants had been a significant player in the private housing market and, in particular, had been the main purchasers of Home Ownership Scheme (HOS) housing. TPS essentially lured potential HOS and private housing buyers back to buying public housing flats instead. When they stop buying, private flat owners and HOS owners cannot trade up. The housing ladder was therefore severed. In addition to this effect, the huge overhang of supply created after 1997 also played a key role in

preventing the housing market from recovering, notwithstanding a pick-up in exports.

Housing being the main store of wealth for Hong Kong's middle-class households, a collapse in housing prices produced a huge wealth effect, curtailing consumption and private domestic investment. Unemployment therefore shot up quickly. A collapse in housing prices is the key explanation for the emergence of deflation from late 1998.

探討當前香港經濟危機與房屋政策的關係

何濼生

（中文摘要）

始於 1998 年的經濟衰退對香港來說是空前的。在此之前，打從 1963 年政府開始公布經濟增長數字以來，沒有一整年錄得負增長的情況。而是次負增長幅度達 5.0%，其後的復蘇又軟弱無力。官方的解釋是受到亞洲金融風暴的影響，但香港多次經歷過比亞洲金融風暴更艱險的危機，卻屢屢化險爲夷。60 年代的文化大革命；70 年代的石油危機及隨之而來的全球性經濟不景（1973 至 1975 年間，恒生指數下跌九成多）；60 年代和 80 年代的銀行危機（都涉及銀行倒閉），都是重大的震盪。相反，在是次「金融風暴」中，一間銀行也沒有倒閉。

本文嘗試從另一角度解釋是次衰退。作者論證特區政府錯誤的房屋政策直接造成樓市崩潰和不停下瀉。統計上的有關數據爲此論點提供了支持。租者置其屋計劃忽略了公屋租戶近年來積極購買私人樓宇和居者有其屋的事實，當香港房屋委員會向公屋租戶提出可以以特惠價購入所住單位時，他們就再沒有理由以高價購買其他住宅。該等住宅的業主遽然失去大批買家，便難以換樓，因此整個置業階梯都受影響。此外，1997 年後政府致力增加房屋供應亦令樓市難於復蘇。由於香港的中產階級多以住宅爲主要的藏富工具，樓市崩潰便對消費和內部投資造成重大打擊，失業率因此急升。在需求下跌的帶動下，香港遂出現連年的通縮。