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INFORMATION</u>

February 7, 1994

To: Members of the Executive Board

From: The Secretary

Subject: United Kingdom - Hong Kong - Staff Report for the 1993
          <u>Article IV Consultation Discussions</u>

        The attached paper provides additional information to the staff
report on the 1993 Article IV consultation discussions with respect to
Hong Kong (SM/94/25, 1/26/94), which is now proposed to be brought to the
agenda for discussion on Wednesday, February 23, 1994.

        Mr. Meredith (ext. 37771) or Mr. Miranda (ext. 36522) is available
to answer technical or factual questions relating to this paper.

        Unless the Documents Preparation Section (ext. 36760) is otherwise
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procedures approved by the Executive Board and with the appropriate
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INTERNATIONAL MONETARY FUND

UNITED KINGDOM - HONG KONG

Staff Report for the 1993 Article IV Consultation Discussions
Supplementary Information

Prepared by G. Meredith, K. Miranda, J. Daniel (all CTA)
and M. Kumar (RES)

Approved by the Central Asia Department

February 3, 1994

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Hong Kong

Basic Data

Area: 1,078 sq. kilometers
Population (mid-1992):   5.81 million
GDP per capita (1992):   US$16,642

	1988	1989	1990	1991	1992	1993
GDP (HK$ bn., current prices)	433.7	499.2	559.6	643.4	747.4	392.7 1/
Population growth (percent)	0.8	1.0	0.3	0.9	1.0	1.8
Annual percentage changes						
Real GDP	8.3	2.8	3.2	4.1	5.3	5.3 2/
GDP deflator	8.9	11.9	8.4	10.6	10.4	9.4 2/
Hong Kong dollar M3	18.9	15.0	14.8	15.6	13.7	13.6 3/
Budget revenue 4/	19.4	13.4	8.6	26.9	16.9	13.0
Budget expenditure 4/	11.2	32.7	19.9	7.8	22.9	34.3
Total exports 5/	30.5	15.7	12.1	19.7	20.8	15.1 2/
Domestic exports 5/	11.6	2.9	0.8	2.3	1.4	-3.5 2
Re-exports 5/	50.8	25.9	19.5	29.2	29.2	21.5 2/
Total imports 5/	31.9	12.8	14.2	21.2	22.6	14.4 2/
Real effective exchange rate	-2.9	6.5	5.7	7.1	4.3	6.6 6/
Ratios to GDP						
Gross domestic investment	29.9	27.7	28.4	28.2	29.1	28.7 1/
Balance of trade 5/	-1.9	1.1	-1.0	-2.5	-4.5	-7.5 1/
Balance of goods and nonfactor services 5/	5.1	8.0	4.9	3.0	1.9	-0.3 1/
Budget revenue 4/,7/	16.8	16.5	16.0	17.7	17.8	17.7
Budget expenditure 4/,7/	12.4	14.3	15.3	14.3	15.2	18.0
Budget balance 4/,7/	4.3	2.2	0.7	3.3	2.6	-0.3
Balance of payments (US$ bn.) 5/						
Exports of goods	63.2	73.1	82.1	98.6	119.5	61.9 1/
Domestic exports	27.9	28.7	29.0	29.7	30.2	13.3 1/
Re-exports	35.3	44.4	53.1	68.8	89.2	48.6 1/
Exports of nonfactor services	11.0	12.6	13.9	15.6	18.5	9.8 1/
Imports of goods	64.2	72.5	82.8	100.6	123.8	65.7 1/
Imports of services	7.1	8.1	9.7	11.1	12.4	6.1 1/
Balance on goods and nonfactor services	2.8	5.1	3.5	2.5	1.8	-0.1 1/

Sources: Data provided by the Hong Kong authorities; and staff estimates.

1/ First half of year.
2/ January-June over corresponding year-earlier period.
3/ Average increase for the three-month period ending in October.
4/ Consolidated account. Fiscal year begins April 1. Data for 1993 are based on official projections.
5/ National accounts data.
6/ January-October over corresponding year-earlier period.
7/ Fiscal year receipts and expenditures divided by calendar year GDP.

I. Assessing Alternative Sources of Inflation 1/

1. Introduction

In its relative form, the law of one price suggests that a country's rate of inflation should be equalized with the rate of inflation of the country to which its exchange rate is tied. Since 1983, Hong Kong has maintained a linked exchange rate with the United States. Despite this link, its rate of inflation, especially in the late 1980s, has exceeded that of the United States, often by significant amounts. This chapter examines some possible reasons for the high rates of consumer price inflation experienced in Hong Kong during the 1986-93 period. The approach taken is, first, to examine the role of a number of external sources of inflation. Once the effects of these sources of inflation are identified and then "netted" from the overall rate of inflation, a "residual" rate of inflation is explored. Several possible sources for these residual price pressures are discussed, including: (1) the response of the Hong Kong economy to the opening of China; (2) differential productivity growth between the traded and nontraded goods sectors; (3) tax factors; and (4) domestic excess demand pressures.

The upward trend in the rate of inflation in Hong Kong began in the latter half of the 1980s, rising from an average rate of 3 percent in 1985-86 to 12 percent in 1991. 2/ The rate of inflation moderated somewhat in 1992 to 9 1/2 percent, and eased a bit further during 1993 to 8 1/2 percent. Despite this moderation, inflation remains a concern because it has continued at a time when Hong Kong's main trading partners and, in particular, the United States (to whose currency the Hong Kong dollar is linked) are experiencing lower rates of inflation. These differential rates of inflation, coupled with the linked exchange rate, raise concerns about Hong Kong's medium-term external competitiveness. In addition, the

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1/ As used in this report, the term "country" does not in all cases refer to a territorial entity that is a state as understood by international law and practice; the term also covers some territorial entities that are not states, but for which statistical data are maintained and provided internationally on a separate and independent basis.

2/ Unless otherwise indicated, discussion of the consumer price index throughout this paper relates to CPI(A). CPI(A) is based on the expenditure pattern of about 50 percent of urban households in Hong Kong, whose average monthly expenditures (under the 1989/90 Household Expenditure Survey) ranged between HK$2,500 and HK$9,999. Other consumer price indices are available, but cover a narrower and more affluent segment of consumers. CPI(B) is based on the expenditure pattern of the next 30 percent of urban households, which had average monthly expenditures ranging between HK$10,000 and HK$17,499 in 1989/90. The Hang Seng CPI is based on the expenditure pattern of the next 10 percent of urban households, which had average monthly expenditures ranging between HK$17,500 and HK$37,499 in 1989/90.

persistence of high rates of inflation may well lead to an entrenchment of inflationary expectations that could ultimately prolong the depth and severity of the adjustment process following any large negative shock.

2.   Underline External sources of inflation

Table 1 and Chart 1 provide an overview of the nature of the inflationary process in Hong Kong. A decomposition of CPI(A) into its components helps to gauge, at a general level, the extent to which external factors have played a role in the inflation process in Hong Kong. As can be seen, those components that are more "tradable" (for example, durable goods, fuel and light, and food excluding meals away from home) have tended to exhibit lower rates of inflation than those goods that are nontradable (for example, services and housing). Other indices, such as export and import unit values (for traded goods) and the residential price index (for nontradables), confirm this tendency.

This pattern suggests that a useful first step in analyzing the inflationary process in Hong Kong is to more systematically disentangle external sources of inflation from overall inflation. This is all the more important in the case of Hong Kong because of the high degree of openness of the economy and the relatively large share of tradable goods in the CPI (as well as in GDP). In the analysis that follows, three possible channels through which external price developments can affect the CPI in Hong Kong are considered.

International relative price effects. Since Hong Kong imports virtually all of its food and energy requirements, changes in the relative prices of food and energy in international markets can exert a large influence on Hong Kong's CPI. Food accounts for slightly over 41 percent of the CPI weighting scheme in Hong Kong, subdivided about equally between "meals away from home" and "food excluding meals away from home." 1/ In 1991, imports of foodstuffs reached HK$41 billion, compared with domestic agricultural and fishing output of only HK$1.4 billion. The large CPI weight, coupled with the heavy dependence on imported foods, suggest that external food price developments play a major role in influencing Hong Kong's rate of inflation. Indeed, as Table 1 suggests, in recent years food prices have imparted a downward bias to overall price developments, reflecting, in large part, good harvests in China as well as a real effective depreciation of the yuan. 2/, 3/

1/ Movements in the latter category tend to capture pure movements in the prices of imported foodstuffs. Movements in the former category, while also reflecting changes in imported food prices, appear primarily to reflect services sector price inflation.

2/ In 1992, China accounted for about one third of Hong Kong's food imports.

3/ See Khor (1993) for a review of recent trends in China's exchange rate.

CHART 1

HONG KONG

CPI AND ITS COMPONENTS, 1984-93

Percentage change (year on year)

Percentage change (year on year)
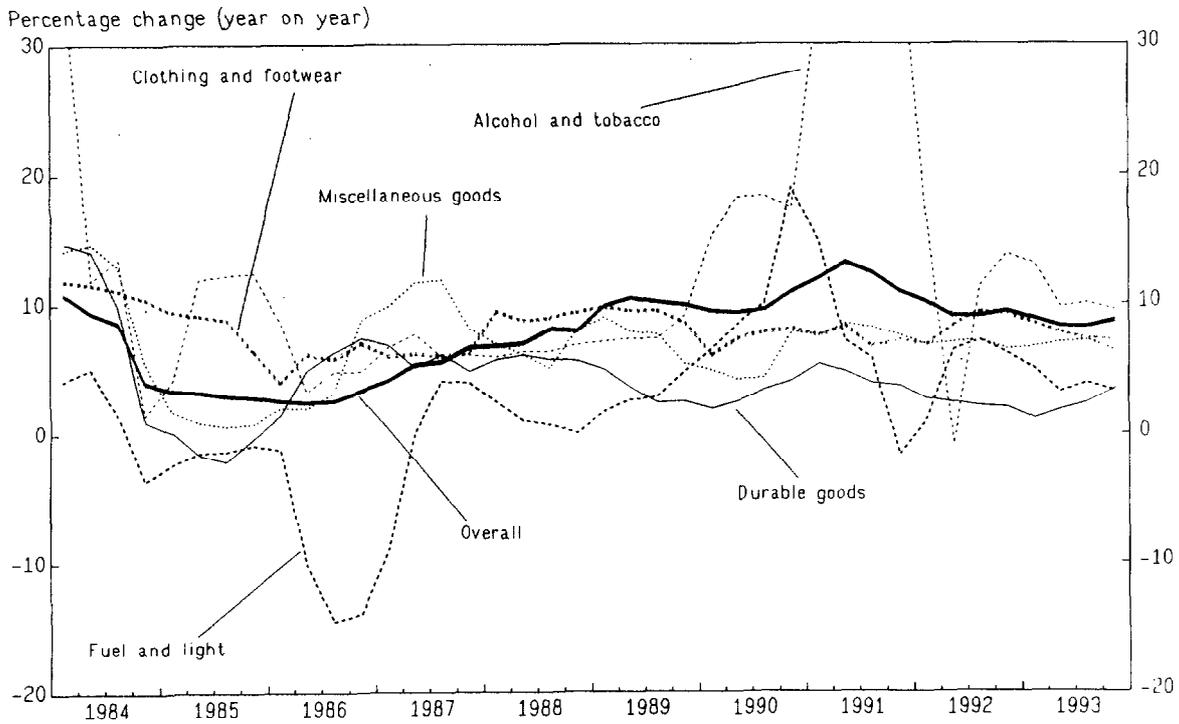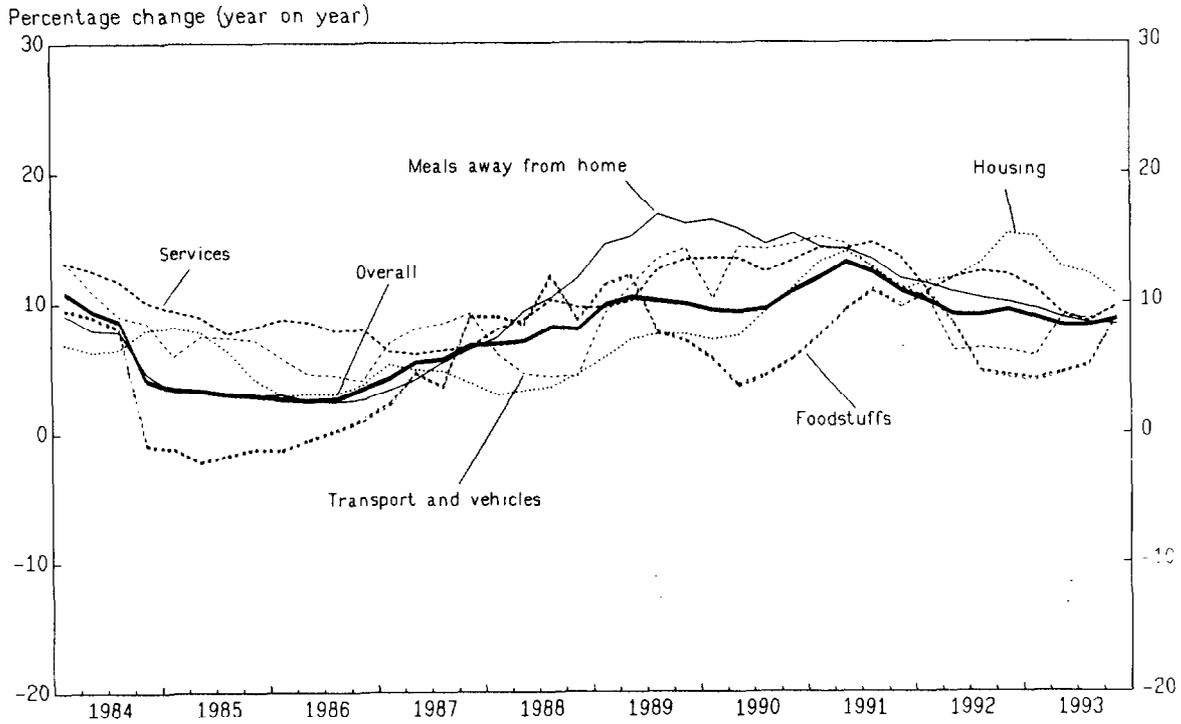
Sources: Data provided by the Hong Kong authorities; and staff estimates.

Table 1. Hong Kong: Selected Price Indicators, 1988-93

(Percentage change)

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1993 1/ | | | |
							Q I	Q II	Q III	Q IV
CPI (A) 2/	7.4	10.1	9.7	12.0	9.3	8.5	8.8	8.2	8.2	8.7
Food - overall	9.6	12.4	9.9	11.4	8.8	7.2	6.8	6.7	6.9	8.6
- meals away from home	9.8	15.6	15.5	13.3	10.6	8.7	9.5	8.8	8.4	8.3
- excluding meals away from home	9.5	9.4	4.8	9.4	6.9	5.6	4.0	4.5	5.1	8.8
Housing	3.5	7.0	8.7	12.6	13.0	12.6	15.0	12.7	12.2	10.6
Fuel and light	1.1	3.0	10.9	6.2	5.2	3.9	5.0	3.2	3.9	3.3
Alcohol and tobacco	6.5	7.7	17.3	44.2	9.7	10.5	13.0	9.7	10.0	9.5
Clothing and footwear	9.1	9.2	7.3	7.3	8.5	7.6	8.4	7.7	7.2	7.1
Durable goods	5.9	3.3	3.0	4.4	2.3	2.2	1.1	1.8	2.4	3.5
Miscellaneous goods	6.5	7.5	5.3	7.9	6.8	6.8	6.6	7.0	7.1	6.4
Transport and vehicles	4.7	12.1	13.4	13.2	7.2	8.3	5.8	8.9	8.7	9.6
Services	9.2	11.4	13.0	14.1	11.8	9.5	11.0	9.1	8.5	9.7
Memorandum items:										
CPI (B) 2/	7.4	9.7	9.7	11.7	9.6	8.7	9.3	8.7	8.4	8.6
Residential price index	21.5	26.6	11.0	37.8	41.8	...	8.0	0.9	9.8	...
GDP deflator	8.9	11.9	8.4	10.6	10.4	...	9.5	9.4	...	...
Domestic demand deflator	9.8	10.2	8.2	8.3	6.8	...	5.5	6.0	...	...
Export prices - goods deflator	3.2	5.0	2.7	2.7	1.3	...	-0.4	0.8	...	...
- services deflator	7.4	10.0	4.6	8.0	7.1	...	6.0	6.4	...	...
Import prices - goods deflator	4.2	3.6	2.4	1.9	0.2	...	-1.5	-0.2	...	...
- services deflator	3.1	8.0	8.1	5.2	4.7	...	-2.0	0.8	...	...

Sources: Census and Statistics Department, Hong Kong Monthly Digest of Statistics; and Government Secretariat, Half-Yearly Economic Report, 1992.

1/ Increase over corresponding year-earlier period.
2/ Data for CPI(A) and CPI(B) for 1987-91 use October 1984-September 1985 as the base year. Beginning in 1992, data for CPI(A) and CPI(B) use October 1989-September 1990 as the base year.

As regards energy, the category of fuel and light accounts for a minor portion of the CPI in Hong Kong, with a weight of 3.2 percent. Nonetheless, with the recent downward trend in world energy prices, it again becomes pertinent to question the extent to which the decline in energy prices accounts for the moderation in the CPI. In the analysis that follows, the CPI is recalculated, with raw food ("food excluding meals away from home") and energy excluded, to arrive at a core rate of inflation. This approach adjusts for the volatility associated with two important external sources of price pressures.

External monetary policy. Besides changes in relative prices, part of measured inflation in Hong Kong will be related to underlying developments in inflation in the United States, given the nature of Hong Kong's monetary system. Hong Kong's monetary standard was altered in October 1983, 1/ and the Hong Kong dollar has remained tied to the U.S. dollar at the linked rate of HK$7.80 per US$1 since then. Under the system, money is demand determined, and monetary policy--with its implications for the underlying rate of inflation--is in essence conducted in the United States. The law of one price (in its relative form) suggests that the adoption of the linked exchange rate system should, to a large extent, "link" the rates of inflation of the U.S. economy and the Hong Kong economy--and should in general make the underlying rate of U.S. inflation a "central rate" for Hong Kong's rate of inflation, all other things being equal--that is, abstracting from other shocks, whether domestic, external, or real. 2/ Thus, taking the difference between Hong Kong's rate of inflation and that in the United States aids in removing another external influence on Hong Kong's inflation rate. The issue, however, remains as to how best to measure underlying inflation in the United States, given both differences in the weighting scheme for the CPI as well as the possibility that different shocks affect Hong Kong and the United States. In the analysis that follows, it is assumed that core U.S. CPI inflation is a reasonable proxy for true underlying inflation. This has the added advantage that volatility associated with changes in food and energy prices are removed--as is done in the case of Hong Kong.

Exchange rate and other terms of trade effects. Being linked to the U.S. dollar implies that the Hong Kong dollar floats against the currencies

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1/ During November 1974-October 1983, the Hong Kong dollar floated, with periodic official interventions. Following a period of severe instability that culminated in a run on the currency in September 1983, the linked exchange rate system was adopted in October 1983.
2/ Indeed, following the introduction of the linked rate and after an initial period of adjustment to the depreciation of the currency, the inflation rate in Hong Kong slowed considerably and appeared to be converging to the inflation rate in the United States. In the late 1980s, however, the rate of increase of the Hong Kong CPI began to diverge markedly from that in the United States, reflecting the residual price pressures discussed below.

of many of its key trading partners. Thus, to the extent that the U.S. dollar depreciates against, say the deutsche mark or the yen, all other things equal, import prices of German or Japanese goods should rise in Hong Kong dollar terms. Import prices in Hong Kong dollar terms may also change as a result of exogenous shifts in their relative prices. This is similar to the justification made earlier for removing food and energy price movements from the CPI, but is intended to apply more generally to all other imports. 1/, 2/

3.   Sources of residual inflation

While the preceding discussion highlighted alternative sources of price pressures emanating from external sources, a large part of the inflationary process in Hong Kong has been associated with rapidly increasing prices of nontraded goods. It is posited that these price pressures, as measured by residual inflation, reflect a domestic adjustment to a number of concomitant developments. These include the response of the economy to the opening of China, differential productivity growth between the traded and nontraded goods sectors, tax factors, and domestic excess demand pressures.

The response of the economy to the opening of China. The liberalization and opening of the Chinese economy set in motion a rapid transformation of Hong Kong's structure of production. In particular, with the liberalization of the Chinese economy, the demand for trade-related services (trading, merchandising, design, advertising, transportation, banking, insurance, financial services, etc.) from Hong Kong to complement the enormous expansion of manufacturing in southern China increased dramatically. As these "head office" operations expanded, labor was increasingly pulled from other sectors of the economy. As wages began to rise in the overall economy, the traded goods sector in Hong Kong (manufacturing) was squeezed, since the higher wage costs could not in all cases be passed through to world markets, given competitive pressures.

Most of the economic effects of this external demand shock in Hong Kong can be likened to a Dutch disease-type phenomenon--but instead of a booming natural resource, the boom occurs in the services sector. However, unlike in the classical Dutch disease case, the manufacturing sector, though squeezed, has had access to a safety valve: many (primarily low value-added, labor-intensive) operations could be shifted into the Pearl River Delta region which provides virtually unlimited supplies of low-cost labor

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1/ In this case, the relevant notion of imports are those that are "retained," since these are the ones that ultimately enter into final consumption.

2/ Because of the difficulty of precisely capturing these effects, a proxy is used in the results that follow. The methodology adopted involves taking the difference between the U.S. producer price index for finished goods, excluding food and energy, and Hong Kong's import deflator for goods, weighted by the share of non-food, non-energy retained imports in GDP.

and land. The complementarity between Hong Kong as a financial and service sector hub and the Pearl River Delta, with its vast supplies of land and labor, has provided a ready environment for the restructuring of the Hong Kong economy--accelerating the shift of resources into the services sector.

Differential productivity growth. While the external demand shock (China's liberalization and consequent increase in demand for "head office" services) accounts for a portion of residual inflation, productivity increases in the traded goods sector appear to account for another part. As Balassa (1964) has pointed out:

> a rapidly growing country tends (i) to experience an increase in the price of its nontraded goods relative to its internationally traded goods (because of higher productivity growth in the traded-goods sector, or else because nontraded goods are superior goods in consumption), and therefore (ii) to exhibit an apparent real appreciation of its currency when deflation is done using CPIs which include a large share of nontradable goods within them.

The productivity increases in Hong Kong originate from two sources. First, reflecting the systematic adoption of technology in order to "catch-up" with industrial countries, underlying productivity growth in the traded goods sector in Hong Kong has outpaced that in the United States and other industrial economies. Technological catch-up in the traded goods sector has implied a productivity growth differential not only between Hong Kong and other industrial economies, but also--and more importantly--between the traded goods sector and the nontraded goods sector within Hong Kong. It is the latter differential that allows a rise in the price level without necessarily compromising international competitiveness. 1/

The "catch-up" effect is, however, a secular trend--in an economy as open as Hong Kong's, technological catch-up should occur in a fairly smooth

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1/ Part of the technological catch-up in Hong Kong has occurred through human capital accumulation or labor upgrading. Prior to October 1980, the "touch-base policy" allowed Hong Kong to import low-skilled workers for the manufacturing and construction sectors. After abandoning the policy, productivity of the labor force in Hong Kong appears to have been improved through greater training and education. The "educational catch-up" can be viewed as part of the overall "productivity" catch-up.

manner. 1/ A second source of productivity growth in Hong Kong--and one that may be closer to a shock than a secular trend--can also be identified. Given the resource constraints faced by Hong Kong in terms of land and labor, the rapid opening up of southern China--with its vast pool of land and labor--increased the availability of complementary resources to Hong Kong's existing stock of inputs, thereby raising their productivity. This effect is, of course, closely related to the restructuring argument discussed above in that the complementarities between domestic and foreign factors of production not only raised the level of productivity, but also generated a shift in Hong Kong's comparative advantage toward "head-office" services.

Tax factors. On the tax side, a major increase and subsequent cut in the excise duty on tobacco resulted in large onetime price level effects. In particular, in March 1991, excise taxes on tobacco were raised, partly reflecting the Government's concern over the health aspects of tobacco consumption. As a result of this increase, the CPI subindex for alcoholic drinks and tobacco rose by slightly more than 81 percent from April 1990 to April 1991. With a weight of just over 2 1/2 percent in the consumption basket, this increase raised the measured overall CPI by 2 percentage points on a year-on-year basis. In the event, the Government halved the increase in tobacco duties in May 1991, partly to address its concerns over the potentially damaging effects of allowing the increase to be incorporated into inflationary expectations and hence the wage-setting process.

Domestic demand factors. Domestic demand factors also appear to account for a part of the rise in the price of nontradables and, hence, residual inflation. One effect of the linked exchange rate system is that Hong Kong cannot influence monetary conditions, and this lack of control can have important implications for nontradables prices. The transmission mechanism for these pressures is fairly varied, but three key elements are important. First, under the linked exchange rate system, interest rates have to be maintained at levels concordant with conditions in the United States. Over the past few years, the relative cyclical positions of the United States and Hong Kong have meant that Hong Kong has had to accept cyclically low U.S. interest rates at a time when its own economy was

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1/ Indeed, Japan appears to have undergone a similar phenomenon between April 1949 and August 1971 under the Bretton Woods system, when the yen was pegged to the U.S. dollar at ¥ 360 = US$1.00. During this period, Japanese export prices rose by 1.6 percent per annum, while U.S. export prices rose by 1.7 percent per annum. However, Japanese consumer prices rose at a much faster pace than U.S. consumer prices (4.4 percent per annum in Japan compared with 2.3 percent per annum in the United States). One explanation for this (the Balassa effect) is that secular productivity growth in Japanese manufacturing exceeded that in the United States (i.e, a secular productivity catch-up was occurring), so that wages and income in Japan's services sector were able to rise without compromising Japan's external competitiveness.

operating at, if not beyond, its potential. With interest rates so low and indeed negative in real terms, both private investment and consumption demand was stimulated in Hong Kong. Given the level of capacity utilization, these excess demand pressures appear to have spilled over into the balance of payments in the case of demand for tradables, and into prices in the case of demand for nontradable goods. Second, the presence of low interest rates at a time of renewed economic confidence in the future of Hong Kong has contributed to higher asset prices, both equity and property. The wealth effects of these in turn may have further stimulated private demand. Finally, the revaluation of property prices noted above set in motion a process of increases in rental prices for residential properties, which comprise a large part of the CPI.

Domestic demand pressures emanating from changes in the fiscal balance are another possible source of residual inflationary (or deflationary) price pressures. During the period under investigation, the fiscal impulse was relatively neutral through FY 1988/89. In FY 1989/90 and FY 1990/91, however, it registered 1 3/4 percent and 3/4 percent of GDP, respectively. FY 1991/92, however, saw a large withdrawal of fiscal stimulus, but was followed by a stimulus of 1/2 percent of GDP in FY 1992/93. For FY 1993/94, the fiscal impulse was initially expected to be substantially positive, but delays in capital works expenditure associated with the Airport Core Program are expected to moderate the impulse to between 1 and 1 1/2 percent of GDP. As in the case of the excess demand pressures associated with the nature of the monetary system and the lack of control over interest rates, some of the demand pressures generated by the positive impulses spill over into demand for nontraded goods, with consequent price effects given the high degree of capacity utilization.

4. **Results**

Table 2 and Chart 2 provide a breakdown of the overall rate of inflation as outlined above. Based on this breakdown, the following results emerge:

(1) Between 1986 and 1993, core inflation has exceeded the "headline" rate of inflation 1/ by an average of 3/4 of a percentage point. This suggests that falling (or slowly rising) food and energy prices have helped to mask part of the underlying inflationary forces in Hong Kong. In the case of food, a portion of the moderating influence is due to relatively good harvests in China coupled with a depreciating value of the yuan.

(2) Both the overall and core rates of inflation, after accelerating beginning in the mid-1980's, have eased from their peak rates of 12 percent

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1/ That is, inflation as measured by CPI(A). Because it covers 50 percent of urban households, CPI(A) tends to be the price index on which the press reports as well as the one with which most consumers and businesses are concerned.

CHART 2

HONG KONG
INFLATION DECOMPOSITION, 1986-93

Percentage change (year on year)

Hong Kong core inflation
(excluding food and energy)

Overall inflation

Residual inflation

Hong Kong core inflation,
less U.S. core inflation
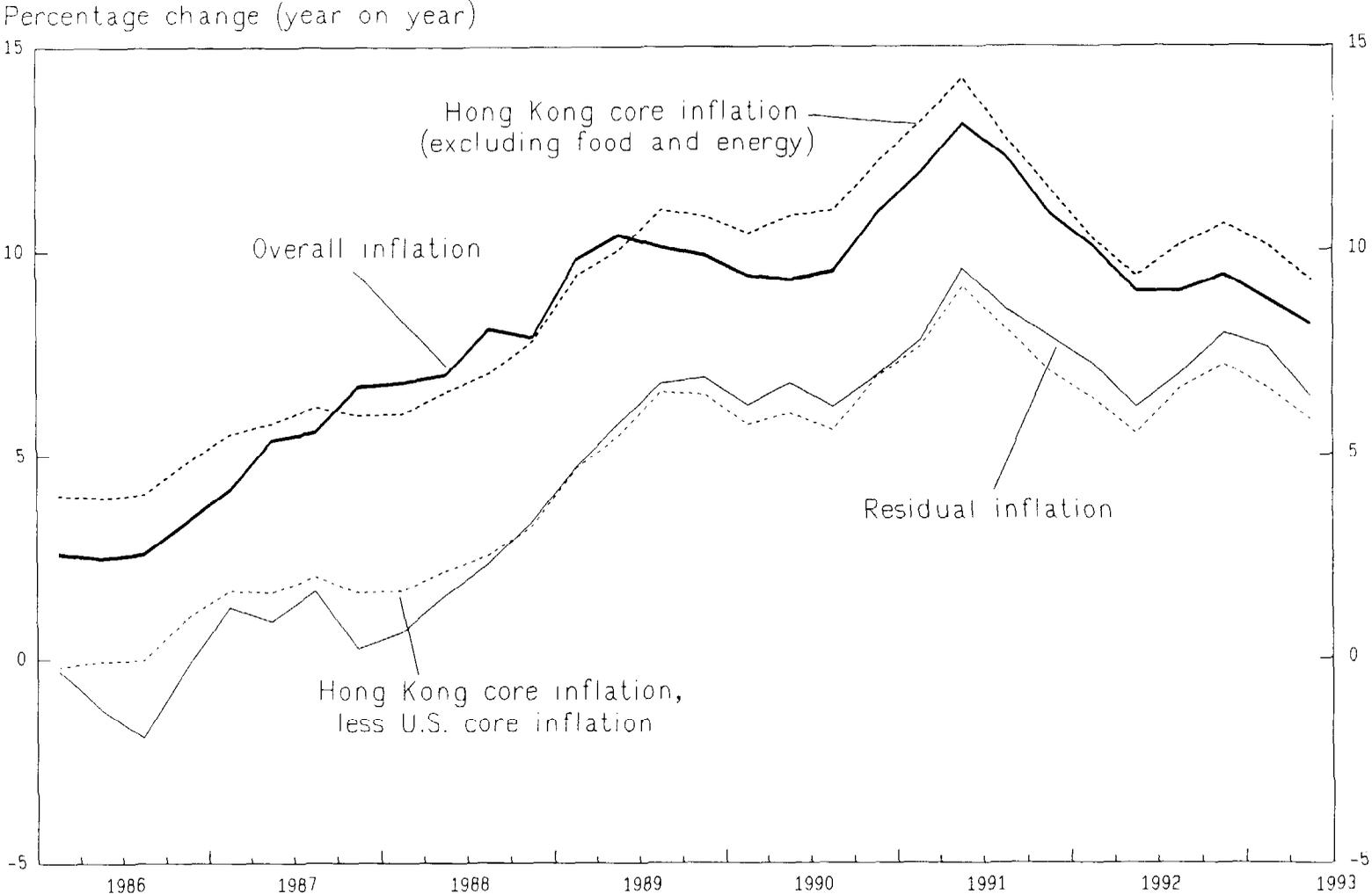
Sources: Data provided by the Hong Kong authorities; and staff estimates.

Table 2. Hong Kong: Decomposition of Inflation, 1986-93

(Percentage change)

	1986	1987	1988	1989	1990	1991	1992	1993
Overall inflation	2.8	5.5	7.4	10.1	9.7	12.0	9.3	8.5
Core inflation 1/	4.2	5.9	6.9	10.3	11.1	12.9	10.1	9.7
Hong Kong core inflation less U.S. core inflation 2/	0.2	1.8	2.4	5.8	6.1	8.0	6.4	6.3
Residual inflation 3/	-0.9	1.1	2.0	6.1	6.5	8.5	7.1	7.0
Memorandum items:								
U.S. inflation	1.9	3.7	4.1	4.8	5.4	4.2	3.0	3.2
U.S. core inflation	4.0	4.1	4.4	4.5	5.0	4.9	3.7	3.4
Impact of changes in nominal effective exchange rate and terms of trade on rate of inflation	1.1	0.7	0.4	-0.2	-0.5	-0.5	-0.7	-0.7

Sources: Data provided by the Hong Kong authorities; International Financial Statistics; and staff estimates.

1/ Excludes energy and foodstuffs, but includes meals prepared away from home.
2/ Both Hong Kong core and U.S. core inflation rates exclude the impact of changes in food and energy prices.
3/ Adjusts previous line for impact of changes in nominal effective exchange rate and terms of trade effects (see memorandum item).

and 13 percent, respectively. Since 1991, overall and core inflation have both fallen, by 3 1/2 percent and 3 1/4 percent, respectively, suggesting a moderation in inflationary pressures.

(3) Although the headline rate of inflation has moderated over the past two years, a large part of this decline is due to a reduction in externally determined inflation. From a peak of 12 percent in 1991, overall inflation fell to 8 1/2 percent in the first half of 1993, or by 3 1/2 percentage points. During the same period, residual inflation fell by 1 1/2 percentage points, from 8 1/2 percent to 7 percent. This suggests that external factors accounted for 2 percentage points of the decline, or well over half of the decline.

(4) Of the 2 percentage point decline in external inflation, the largest part of this is due to a decline in U.S. core inflation of about 1 1/2 percentage points. Declining food and energy prices account for another 1/4 percentage point and the impact of changes in the terms of trade and exchange rate effects account for the remaining 1/4 percentage point.

(5) Residual inflation is still running at a fairly rapid pace. After modest increases in 1986-88, residual inflation picked up rapidly in 1989. After reaching a peak rate of 8 1/2 percent in 1991, residual inflation has slowed, but remains in the 7 percent range.

(6) Because of the increase and subsequent decrease in excise taxes on tobacco, the overall inflation rate was exaggerated in 1991 and was moderated in 1992. At the same time, residual inflation was also exaggerated in 1991 and moderated in 1992. Thus, while the residual inflation rate was depressed by this effect in 1992, the fact that it was running at about the same rate in the first half of 1993 suggests that other sources of residual inflationary pressures have picked up. Among the possible sources for this pickup are the impact of the recent surge in asset prices on the demand for nontradables and a positive fiscal impulse associated with the FY 1993/94 budget.

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II. Asset Market Developments

1. Introduction

This chapter reviews developments in the equity and property markets in Hong Kong since the late 1980s. From mid-1989 to 1993, equity prices more than quadrupled, with an increase in prices during 1993 of 116 percent. Property prices, particularly in the residential and commercial real estate markets, more than doubled since 1989. While a number of factors suggest that the increase in asset prices was driven mainly by economic fundamentals, there are concerns about the likelihood of a speculative "bubble" in both equity and property markets. Even without a bubble, there is the possibility that a change in fundamentals could lead to a significant price correction, which through wealth effects and weaker consumer and investor confidence could have adverse macroeconomic consequences.

The discussion below first examines the magnitude of price increases in the equity and property markets, and then analyzes factors underlying them. The main factors are seen to be the following: an inflow of foreign capital into the region which has buoyed the equity market not only in Hong Kong, but also in several other countries of the region; an increase in confidence in Hong Kong's economic prospects following closer integration with China and a re-evaluation of China's economic prospects; Hong Kong's continuing development as an international financial center; a re-rating of the Hong Kong market by foreign investors; and domestic monetary conditions. It is suggested that despite the underlying economic factors, the extent and speed with which asset prices have increased can entail some risks. The chapter concludes with a discussion of the implications of asset price changes for the domestic economy, and, in particular, examines the potential risks to the financial sector.

2. Asset price movements since the late 1980s

Equity price movements in Hong Kong over the last five years (1988-93) were characterized by considerable volatility around a sharp upward trend. Following a significant downturn in the October 1987 world-wide collapse of stock markets, when the Hang Seng Index of stock prices plunged by 45 percent, equity prices began to increase rapidly (Table 3 and Chart 3). 1/ By mid-May 1989, the Index had recovered a large part of the earlier loss. However, prices declined sharply following events in China in June 1989, although within two months they were again on an upward trend. From end-June 1989 to end-October 1992, the Index increased over two-and-a-half fold, rising from 2274 to a high of 6191. In the following two months, owing

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1/ The Hang Seng Index is composed of 33 companies accounting for nearly 70 percent of the capitalized value of all companies quoted on the Hong Kong stock market. A broader market index, the Hong Kong Index, has shown similar price changes.

Chart 3
Hong Kong
Equity Price Developments, 1986–93
(Log Scale, April 1986=100)

Legend:
— Hang Seng Index
Subindices
-- Property
— Utilities
.... Finance
-- Commerce/Industry
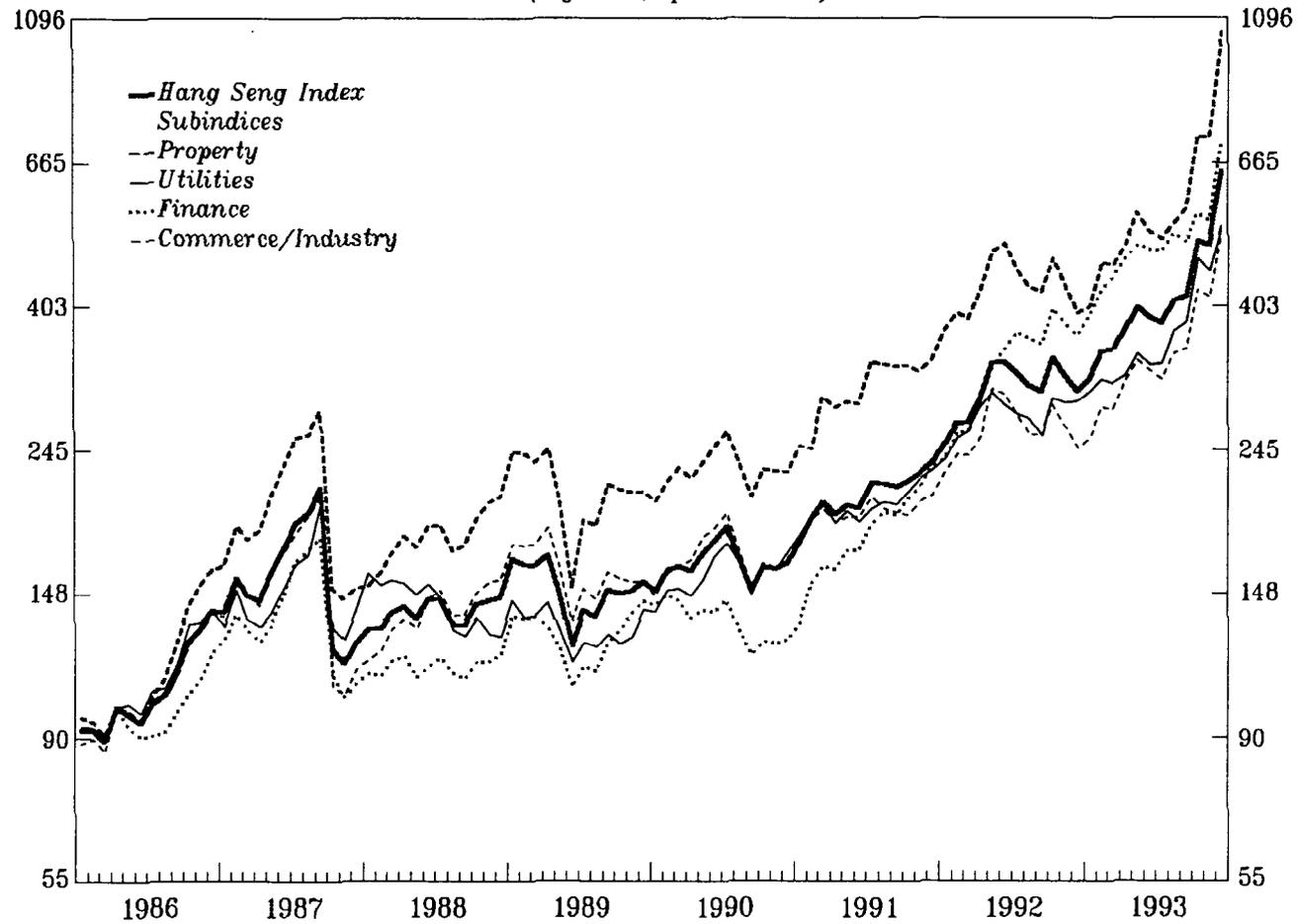
Source: Stocks Exchange of Hong Kong Fact Books.

Table 3. Hong Kong: Equity Price Developments, 1987-93

	1987	1988	1989	1990	1991	1992	1993
(Index of share prices)							
Hang Seng Index							
End of year	2302.8	2687.4	2836.6	3024.5	4297.3	5512.4	11888.4
Average of end of month	2884.9	2556.7	2781.0	3027.5	3471.5	5546.0	7695.8
Sector indices							
(Average of end of month)							
Finance	1933.4	1625.7	1808.1	1906.9	2304.4	4643.6	7142.1
Utilities	3594.4	3486.6	3198.7	3840.6	4448.9	6689.1	9032.0
Property	4257.1	3847.9	4535.2	4874.5	5843.3	9215.7	12490.5
Commerce and Industry	2536.9	2318.0	2687.0	2797.0	2981.1	4379.3	5782.7
(Percentage change)							
Hang Seng Index							
End of year	40.5	16.7	5.6	6.6	42.1	28.3	115.7
Average of end of month	47.2	-11.4	8.8	8.9	14.7	59.8	38.8
Sector indices							
Finance	40.0	-16.0	11.2	5.5	20.8	101.5	53.9
Utilities	35.1	-3.0	-8.3	20.1	15.8	50.4	35.0
Property	74.8	-9.6	17.9	7.5	19.9	57.7	35.5
Commerce and Industry	44.2	-8.6	15.9	4.1	6.6	46.9	32.0

Sources: Hong Kong Stock Exchange Fact Book, Monthly Digest of Statistics, and Bloomberg, Inc.

largely to concerns about the outcome of Sino-British talks, equity prices declined by nearly 25 percent. While volatility continued in the first half of 1993--prices fell by 10 percent in the second week of March owing to political uncertainties--the Index increased by 35 percent in the first five months of 1993. Following a consolidation in midyear arising from concerns about the overheated Chinese economy, prices resumed their upward path, ending the year with an overall increase of 116 percent. Thus, despite significant fluctuations, from mid-1989 to end-1993, equity prices more than quadrupled.

The increase in prices was accompanied by a sharp increase in turnover. From an average monthly rate of HK$25 billion in 1989, turnover increased to nearly HK$100 billion in the third quarter of 1993, one of the largest increases in turnover of any major stock market in the region. The increased turnover was accommodated without any systemic difficulties because of a number of innovations in the trading and settlement procedures, including an automated trading system. 1/ It is also worth noting that, while price increases were broad-based, there were marked differences across sectors during the last five years. The sharpest increase in prices was for the financial sector where prices rose five fold, followed by the property sector, utilities, and commerce and industry where prices doubled. 2/ Given these differential increases, the share of market capitalization of the financial sector increased from 14 percent in 1988 to 22 1/2 percent in 1992 (Table 4). The differences also highlight the activity and growth in different sectors, reflecting in part the changing structure of the Hong Kong economy.

The recent sharp increase in equity prices in Hong Kong is not unique, with markets in several other countries in the region also posting significant gains. For instance, during the first 11 months of 1993 equity prices increased by over 80 percent in Indonesia and the Philippines and over 55 percent in Thailand and Malaysia. 3/ This clearly suggests some common factors underlying equity price increases in the region. Nevertheless, there are also specific factors in the case of Hong Kong, reflecting, in part, the fact that the increase in prices has been sustained over a much longer period. This sustained increase, together with a large

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1/ The Central Clearing and Settlement System (CCASS) commenced operation in two phases during 1992. It operates on a guaranteed continuous net settlement basis and has significantly enhanced risk management systems in the market as well as paved the way for market development measures. (For details, see Annual Report 1993 of the Securities and Futures Commission.)

2/ These numbers are based on a comparison of the average annual value of sector indices (based on end-month values). If indices are considered only at end-year, equity price increases in the property sector have significantly outpaced other sectors, largely because of a very sharp increase in prices in December 1993.

3/ The main exceptions in the region were Korea and Taiwan Province of China where prices increased by around 12 and 32 percent, respectively.

Table 4.   Hong Kong: Stock Market Capitalization and
Turnover by Sector, 1988-92

(In percent of total)

Market Capitalization by Sector

	1988	1989	1990	1991	1992
Finance	13.8	14.8	12.8	16.2	22.4
Utilities	17.3	18.1	20.3	18.5	16.7
Properties	28.4	26.2	26.1	26.9	25.0
Industrials	6.6	5.8	6.5	6.9	7.0
Consolidated enterprises	29.5	30.1	30.8	28.5	26.5
Hotels	4.3	4.0	2.9	2.2	2.1
Miscellaneous	0.2	1.0	0.7	0.7	0.4
Total	100.0	100.0	100.0	100.0	100.0

Trading Value by Sector

	1990	1991	1992
Finance	9.8	14.2	21.0
Utilities	7.4	9.0	8.2
Properties	35.6	35.6	33.0
Consolidated enterprises	27.8	27.2	24.2
Industrials	13.9	12.1	10.8
Hotels	2.6	1.3	2.3
Miscellaneous	2.9	0.7	0.4
Total	100.0	100.0	100.0

number of new listings, has meant a sharp increase in market capitalization, making the Hong Kong stock market now the largest in Asia after that of Japan. 1/

Increases in property prices in Hong Kong over the last five years have also been pronounced, and have contributed to the increases in equity prices of property companies noted above. There have, however, been considerable differences across the three main sectors (residential, commercial, and industrial property). At the same time, several sectors underwent some consolidation in recent months (Table 5). In 1991, property prices rose sharply in all sectors, with prices of residential premises increasing by nearly 40 percent. In November 1991, however, reflecting prudential concerns and a weakening in the longer-maturity retail deposits that had financed mortgage lending, banks lowered the loan-to-valuation ratio to 70 percent. By mid-1992, this restriction, together with the measure to make stamp duty on domestic sales payable at the agreement stage, had reduced speculative activity and the market had become more orderly. Although the market began to slow down significantly toward the end of 1992, owing in part also to the Sino-British stalemate over Hong Kong's constitutional development, for the year as a whole property price increases in all sectors exceeded those in 1991. In all, between 1989 and 1992, prices of private domestic premises nearly tripled, while prices of private retail premises increased two-and-a-half fold, and prices of offices and factories doubled.

In the third quarter of 1993, the property market again showed signs of increased activity, with sharp price increases in the high-end residential market. In the face of this renewed activity, banks further tightened their lending policies including a reduction in the loan-to-valuation ratio to 60 percent for certain properties and an increase in the penalty charge for early redemption of loans. These additional constraints appear to have led to some consolidation in residential prices in the last quarter of 1993. Similarly, prices of office property began to stabilize, while industrial property prices weakened further, reflecting continuing relocation of manufacturing activities into nearby southern China.

In comparison with property prices, property rental rates increased much less. Between 1989 and 1992, rents for different types of property increased only by between 50 percent for factory space and 80 percent for private retail premises. 2/ Price-to-rental ratios, therefore, rose very sharply over the last four years (Chart 4). After rising noticeably in the

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1/ The Hong Kong stock market had a capitalization at end-June 1993 of over US$200 billion, compared with a capitalization of around US$120 billion for Malaysia, Korea, and Taiwan Province of China, and about US$60 billion for Singapore and Thailand. The value of equities traded in 1992--at over US$90 billion--exceeded by far trading activity in all other emerging markets except Korea and Taiwan Province of China.

2/ Statutory rent controls apply to domestic premises in the private sector, unless exempted. These controls are to be phased out by end-1994.

Chart 4
Hong Kong
Property Price Developments, 1986-93
(Logarithmic scales)

Property Price Indices
(1989=100)

Domestic premises

Flatted factories

Private offices

260
220
180
140
100
60
20

1986 1987 1988 1989 1990 1991 1992 1993

Price-Rental Ratios
(1989=100)

Domestic premises

Private offices

Flatted factories

260
220
180
140
100
60
20

1986 1987 1988 1989 1990 1991 1992 1993
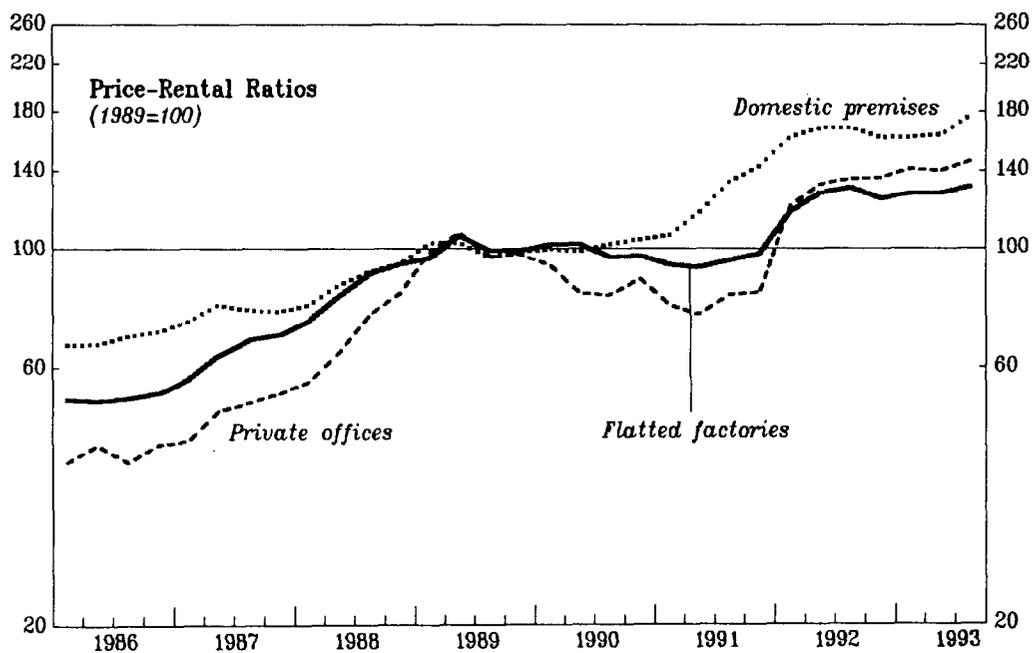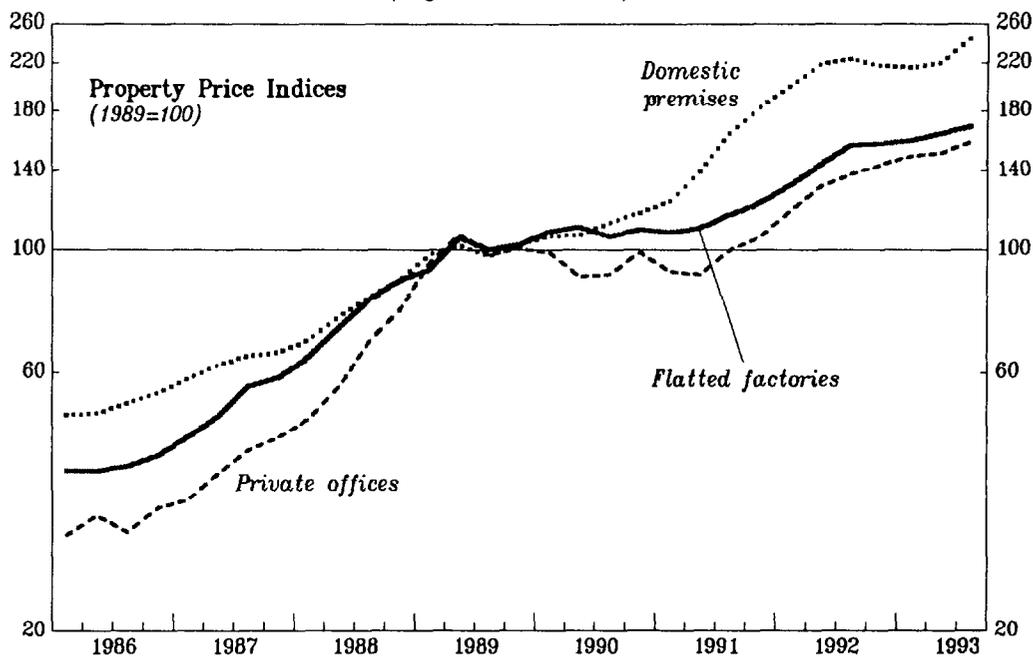
Sources: Hong Kong *Monthly Digest of Statistics; and staff estimates.*

Table 5. Hong Kong: Real Estate Price and Rental Indices, 1988-93 1/

| | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 2/ | | |
						Q I	Q II	Q III
						(1989 = 100)		
Price indices								
Private domestic premises	79	100	111	153	217	216	221	246
Of which:								
40 - 69.9 sq. meters	78	100	111	155	221	220	225	256
100 sq. meters and above	80	100	105	135	204	216	222	257
Private retail premises 3/	76	100	112	143	194	224	230	240
Offices	62	100	96	97	131	149	151	158
Flatted factories	79	100	106	114	146	159	164	169
						(Percent change)		
Private domestic premises	21.5	26.6	11.0	37.8	41.8	8.0	0.9	9.8
Of which:								
40 - 69.9 sq. meters	21.9	28.2	11.0	39.6	42.6	8.4	0.9	11.8
100 sq. meters and above	23.1	25.0	5.0	27.6	51.1	18.7	6.7	20.7
Private retail premises 3/	33.3	31.6	12.0	27.7	35.7	28.0	15.6	14.8
Offices	51.2	61.3	-4.0	1.0	35.0	26.3	15.3	14.5
Flatted factories	38.6	26.6	6.0	7.5	28.1	20.5	13.9	8.3
						(1989 = 100)		
Rental indices								
Private domestic premises	79	100	110	119	130	134	136	139
Private retail premises 3/	81	100	112	126	147	162	162	164
Offices	61	100	101	95	100	106	108	108
Flatted factories	77	100	105	109	115	125	129	129
						(Percent change)		
Private domestic premises	16.2	26.6	10.0	8.2	9.2	8.1	4.6	4.5
Private retail premises 3/	17.4	23.5	12.0	12.5	16.7	15.7	10.2	8.6
Offices	27.1	63.9	1.0	-5.9	5.3	8.2	9.1	5.9
Flatted factories	40.0	29.9	5.0	3.8	5.5	10.6	12.2	7.5

Source: Hong Kong Monthly Digest of Statistics.

1/ Data are period averages.

2/ Percentage changes are calculated over corresponding year-earlier periods.

3/ From 1989, the indices are in respect of all types of retail premises. They are not strictly comparable with the earlier indices that are in respect of shop premises with street frontage only.

first quarter of 1993, in line with the slowdown in prices in the second
quarter, rent increases also moderated. However, rental increases did not
keep pace with price increases in the third quarter of 1993, so that price-
rental ratios rose noticeably.

3.   Determinants of asset price changes

     a.   Equity prices

     There are four major factors behind the sharp rise in equity prices in
Hong Kong over the period 1988-1993. The first is Hong Kong's growth
performance and a marked increase in corporate earnings, reflecting in part
the increasing integration with the booming Chinese economy. Secondly,
there have been changes in the risk premium associated with political
uncertainties, and a significant improvement in the efficiency and
transparency of the stock market. These two factors have led to a re-rating
of the Hong Kong market by global fund managers. Third, there has been a
sharp expansion in capital inflows into the region owing to a reassessment
of Asia's growth prospects, low foreign interest rates, and "fully-valued"
industrial country stock markets. Fourth, domestic monetary conditions--
relatively high inflation and low nominal interest rates--have also played a
role in channeling funds to the asset markets.

     A fundamental determinant of equity prices in Hong Kong has been the
increased optimism regarding its long-term growth prospects and the sharp
rise in corporate earnings. The optimism has been driven, in large part, by
the continuing market-oriented reforms and strong growth in China,
particularly in the southern provinces, and the very rapid integration of
the economy of Hong Kong and of these provinces. Hong Kong and China are
each other's largest trading partners, with China now being the largest
market for Hong Kong's domestic exports, as well as the largest market for,
and the largest supplier of, Hong Kong's re-exports.

     In addition to trade in goods, Hong Kong serves as an important service
center for China, by the provision of financial and related business
services as well as infrastructure facilities such as the port and airport.
Hong Kong is also the most important source of external direct investment in
China, accounting for two-thirds of the total, and Hong Kong-based investors
have signed letters of intent for more than $100 billion in Chinese projects
in the last three years. In recent years, Hong Kong manufacturing, trading,
and property companies have become extremely active in south China,
especially in Guangdong Province, and have seen a remarkable increase in
their sales and earnings from activities in that province. Similarly,
financial companies have seen their earnings soar on the basis of trade and
project financing in south China. For the corporate sector, earnings
increased by around 25 percent and 18 percent in 1992 and 1993,
respectively, with an increase of over 20 percent projected for 1994.

     The current and prospective earnings of financial companies have also
been enhanced by the continuing development of Hong Kong as an international

financial center. Building on its favorable geographical position, excellent international communication links, and the absence of any restriction on capital flows, Hong Kong's financial markets, particularly in foreign exchange and gold, now form an integral part of the corresponding global markets. Almost all of the top 100 banks in the world have operations in Hong Kong, and it has started serving as an important center for the intermediation of international flows of savings and investment, particularly through the syndication of loans and international fund management. In addition to the equity market, local capital markets are developing rapidly, and there has been a revival in activity in the Hong Kong Futures Exchanges. Trading in Hang Seng Index futures tripled between 1991 and 1993, with trading in the new futures contacts based on the four Hang Seng sub-indices introduced in 1991, and options on the Index introduced in early 1993. There are now plans to introduce trading in individual stock options in 1994.

A second factor underlying equity price increases has been the diminution of the risk premium arising out of uncertainties with regard to Hong Kong's status after 1997. This premium was especially pronounced in the early 1980s when Sino-British discussions over the future of Hong Kong were initiated. In recent years, however, as the economies of Hong Kong and China have become closely interlinked, investor concern regarding the impact of the transfer of sovereignty on Hong Kong's prospects appears to have diminished considerably. Although uncertainties have increased occasionally during the last two years, particularly with regard to elections in Hong Kong during 1994-95 and the timing and financing of the infrastructural projects, the general perception has been that Hong Kong's prospects, and particularly its future as an international financial center, are not in doubt. Moreover, increasing investments by China in Hong Kong create a joint interest in prosperity. While it is difficult to quantify the change in risk premium for the market as a whole, it is noticeable that in the Economist Intelligence Unit's quarterly credit-risk rating--based on 27 economic and political factors--Hong Kong's perceived riskiness has declined over the last few years, and is now among the lowest in the world. 1/

In part because of the above two factors, there has recently been a sharp increase in demand by foreign investors, in particular, by foreign mutual funds, seeking higher returns and portfolio diversification. The increased demand reflects, in part, a positive reappraisal of the prospects of the Hong Kong economy after 1997. Foreign investor confidence has also been increased by radical regulatory reforms in the last few years,

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1/ The Economist Intelligence Unit assesses the riskiness of over 80 countries on the basis of 27 factors including debt, current account position, economic policy, and political stability. A rating of 100 indicates maximum risk. In the third quarter of 1993, Hong Kong's risk rating was between 5 and 10, which is similar to that for major industrial countries.

including provisions to increase the transparency of dealing in the market, and penalties for insider trading. 1/ The reappraisal of economic prospects, together with the regulatory reforms, has resulted in increasing capital inflows for equity investment. 2/ These inflows were given a further impetus by a widely publicized re-rating at end-September 1993, when a major U.S. investment bank advised a doubling of the weighting of Hong Kong shares--from 8 to 16 percent--in its emerging market portfolio. This was an important element in the sharp rally in stock prices in the following six weeks, when prices increased by over 25 percent.

Foreign demand for Hong Kong equities--as well as for equities in other economies in the region--was also spurred by the external economic environment, especially during 1991 and 1992. During this period, low international interest rates, combined with weak economic activity and low corporate earnings in the United States and other industrial countries, made equity investments in emerging equity markets, including in East Asia, particularly attractive. 3/ The fixed exchange rate link of the Hong Kong dollar with the U.S. dollar, by eliminating exchange rate risk, provided an additional attraction, as did the highly developed financial infrastructure, prudential regulations, and disclosure information about listed companies' operations and performance.

Finally, domestic monetary conditions in Hong Kong--relatively high inflation and low nominal interest rates--have also made equities an attractive alternative for both the household and the business sectors. Nominal interest rates on 12-month savings deposits have declined by over 4 percentage points since mid-1991 to reach a low of 3 1/2 percent in the third quarter of 1993. In addition, domestic companies themselves, especially manufacturing and property companies, have been flush with liquidity over the last three years due to record profits and have been significant purchasers of equities. Investor interest has also been spurred by an increase in new listings, particularly of companies based in China.

While judgments about the appropriateness of stock market valuation are extremely difficult, the above factors suggest that the rise in stock market prices over the past five years does not represent the type of asset bubble phenomenon that has occurred in the recent past in several industrial countries. The extent to which price increases are justified by economic prospects and the diminution of the risk premium can be illustrated by examining price-to-earnings ratios and dividend yields. The price-to-

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1/ This supports the view that, far from seeking the least regulated markets, foreign investors are attracted to markets that are well, although not overly, regulated.

2/ Although Hong Kong does not collect statistics on capital flows, an analysis of the banking sector's balance sheet suggests that capital inflows are likely to have increased sharply since 1990.

3/ For an analysis of the causes and effects of recent capital inflows into several Asian countries, see Bercuson and Koenig (1993).

earnings ratio over the last four years (on a 12-month lagging basis) increased from 9 in 1989 to about 17 by end-October 1993. Although this ratio was unusually depressed earlier, reflecting risk premia that investors attached to the Hong Kong market, even with the large price increases, the ratio is on par, or even somewhat lower than that in several other regional markets. For instance, at end-October 1993, Singapore and Malaysia had ratios of about 27 (Table 6). In terms of the dividend yield--the ratio of aggregate dividends to aggregate market value--price increases also do not appear to have been excessive. In the second half of 1993, for instance, the yield ratio for Hong Kong was about 2 3/4 compared with 1 1/4 for Singapore, 1 for Malaysia, and under 1 for Japan. While comparisons across countries should be interpreted with care because of differences in capital structures, accounting conventions, as well as the relative cyclical position of the countries being considered, these ratios suggest that the recent price increases may not be out of line with the fundamentals.

The resilience of the equity market in Hong Kong was also underlined when, in mid-November 1993, the same investment bank that had signaled the re-rating reversed its original recommendation and reduced the proportion of Hong Kong stocks in its model portfolio. The market, however, did not decline significantly following this reversal, and subsequently, has continued on an upward trend. 1/ Nevertheless, this change in assessment by a major foreign institutional investor highlights potential concerns about the sustainability of price increases. Risks could develop from an abrupt change in the fundamentals, owing for instance to an increase in international interest rates, or from increases in political uncertainty. There also appear to be concerns that investor expectations of earnings of Hong Kong companies operating in southern China may have been too optimistic.

To illustrate the extent to which the market may have deviated in the most recent period from underlying fundamentals, a simple statistical exercise was undertaken. 2/ The exercise is based on estimating an equation for equity prices using monthly data from January 1988 to December 1992, with corporate earnings, earnings growth, dividend yield, and interest rates as the key explanatory variables. In addition, to take into account the effect of political developments, a "dummy" variable was constructed, which takes the value of 1 in periods of political uncertainty, and a value

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1/ In this context it is also worth noting that since 1989 volatility in the Hong Kong equity market, while high compared to industrial countries, has been if anything lower than in other emerging equity markets (see Table 7).

2/ For some discussion of issues related to the role of fundamentals in determining equity prices, see Flood and Hodrick (1990) and Shiller (1990).

Table 6. Asian Emerging Markets: Earnings Growth and
Price-Earnings Ratios, 1987-93

	1987	1988	1989	1990	1991	1992	1993
				(Percentage change)			
Earnings growth							
Hong Kong	32	27	21	52	32	41	8
Indonesia	...	33	71	105	-5	5	10
Korea	37	52	8	-12	9	9	11
Malaysia	43	54	33	33	37	7	14
Philippines	47	54	23	2	24	14	15
Singapore	35	35	28	-6	6	10	17
Taiwan Province							
of China	63	44	6	-33	17	5	11
Thailand	...	38	35	18	7	8	4
Average	43	42	28	14	15	10	13
Price-earnings ratios							
Hong Kong	10.9	9.1	9.2	9.6	11.6	11.5	16.8
Indonesia	5.5	20.0	27.3	13.4	12.6	13.2	23.4
Korea	11.0	13.4	14.3	12.3	11.5	14.2	16.4
Malaysia	24.3	23.1	24.5	16.8	16.0	17.2	26.5
Philippines	10.9	9.7	19.4	9.1	14.3	13.2	19.5
Singapore	17.5	16.3	18.8	14.3	17.6	16.1	27.3
Taiwan Province							
of China	18.1	30.6	53.5	29.1	28.4	25.3	29.8
Thailand	11.1	12.0	19.6	12.6	14.9	12.1	18.1
Average	14	17	23	15	16	15	22

Source: CS First Boston (Hong Kong) Limited. Data for 1993 are for the period
up to October 31.

Table 7. Volatility in Selected Equity Markets, 1983-93 1/

	1983-93	1983-88	1989-93
Chile	3.7	7.9	7.3
Colombia	4.6	6.3	11.6
Hong Kong	8.1	10.0	6.8
India	2.2	7.5	12.8
Japan	0.9	3.8	5.7
Korea	1.6	7.5	12.8
Mexico	6.6	16.4	7.9
Pakistan	6.6	2.8	8.8
Thailand	1.8	7.1	8.7
United Kingdom	1.1	4.7	3.9
United States	1.0	3.8	2.9
Zimbabwe	2.2	9.5	7.5

1/ Measured by the standard deviation of the percentage change in
equity prices (at end-month) in domestic currency. Data for 1993 are
through August.

of zero otherwise. 1/ The results of estimating this equation emphasize the high sensitivity of equity prices not only to corporate earnings but also to changes in interest rates and political developments (see Table 8).

The above estimates were then used to predict equity price movements. The results noted in Chart 5 suggest that price increases from end-1991 to mid-1993 could be explained fairly reasonably on the basis of underlying fundamental factors. However, since June 1993, actual price increases have exceeded what could have been expected on the basis of fundamentals. It should be noted that while this result clearly warrants some concern about stock market activity, it does not necessarily imply the existence of a speculative bubble. This is in part because of uncertainty about the stability of underlying parameters; it is also because the estimating equation does not explicitly take into account the changing risk premium and re-rating of the Hong Kong economy, or the associated sharp increase in capital inflows in the second half of the year. A simulation exercise undertaken using the econometric model also reinforced the expectation that were interest rates to increase substantially during 1994--say by 3-4 percentage points--this could have a marked dampening effect on the increase in equity prices.

b.   **Property prices**

Several of the factors underlying the increase in equity prices were also important in the increase in property prices. Buoyant domestic activity, increased confidence in economic prospects, and diminished political uncertainties all sharply increased the demand for commercial property during 1990-92, with considerable investment originating from China. The market also gathered momentum after July 1991 following the announcement of the Sino-British "Memorandum of Understanding" on the implementation of the new airport and other related projects. Moreover, the decline in loan rates, by about 4 percentage points from mid-1989, coupled with high domestic inflation, sharply lowered financing costs in real terms. In addition to these factors, high population density, a rapid rise in household income, and changes in the demographic composition in the last decade have also boosted demand for residential property.

The demand for property has been further supported by accommodative financial conditions, while the supply of land, and hence property, has been relatively inelastic. Property loans have been one of the most profitable forms of domestic business for the banking sector, and in recent years, nearly one third of the loans for use within Hong Kong have been channeled

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1/ For instance, the variable took the value of 1 in October and November 1992, when constitutional development plans for the coming five years (announced in October) were followed by a set of diplomatic exchanges between the British and Chinese Governments. Similarly, in March 1993 it took the value of 1 when Sino-British tensions concerning Hong Kong again increased. The variable took the value of zero in most other periods.

Chart 5
Hong Kong

Equity Price Changes--Actual and Predicted, 1988-93

(Change in the log of equity prices relative to earnings)

Table 8. Hong Kong: Estimates of Determinants of Equity Prices

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Δ Log (HKI/EARN)$_t$ = 1.18 + 0.49 Δlog (HKI/EARN)$_{t-3}$
                          (4.3)   (5.9)

                       - 0.43 log (HKI/EARN)$_{t-3}$
                        (-4.17)

                       - 0.03 Δ (INT-EARNG)$_t$
                        (-3.67)

                       - 0.04 (INT-EARNG)$_{t-3}$
                        (-3.76)

                       - 0.09 POL$_t$
                        (-3.94)

S.E.E = 0.063 R^2 = 0.70   DW = 1.64   h = 1.40

where HKI   = Hong Kong Index

       EARN   = Trend of Corporate Earnings

       EARNG = Trend Growth in Corporate Earnings

       INT   = Rate on deposits of 12-month maturity

       POL   = Dummy variable taking a value of
                 1 in periods of political uncertainty,
                 0 otherwise.

Note: Equation was estimated over the period January 1988 - December 1992
       using monthly data.

to the property sector. There has also been an important interrelationship between the increase in stock prices of property companies, availability of bank credit, and further investment in property. Property companies account for over one fourth of the capitalization of the Hong Kong stock market. As stock prices of these companies boomed, they were able to borrow larger amounts, and undertake further investment in the property market. While part of this investment took the form of new construction, a major share was allocated to the purchase of existing premises.

In view of the rapid escalation of property prices, the Government sought to discourage speculation, especially in the residential market. In addition to various land auctions, both in 1991 and 1992, the authorities advised banks to tighten mortgage lending policies. As a result, banks adjusted their loan-to-value ratios from up to 90 percent to 70 percent. In addition, banks did not continue reducing mortgage interest rates in line with the decline in other interest rates. In early November 1991, the authorities moved directly to discourage property speculation by making the existing stamp duty on property transactions payable on each sale and purchase agreement.

The initial response to the above measures was muted, and while transactions were reduced, property prices continued to increase in the first half of 1992. Some consolidation began in the second half of 1992 and early 1993, when banks tightened mortgage policy by further reducing the loan-to-value ratios for certain residential properties. On a quarter-on-quarter basis, residential property prices in the first quarter of 1993 were almost unchanged, while prices of office and factory space increased much less than in the corresponding period a year earlier. While prices again increased noticeably in the third quarter of 1993, in the subsequent two months there was some consolidation.

As in the case of the equity market, it is difficult to accurately assess the sustainability of current price levels. Despite the recent consolidation, property prices have risen significantly relative to rentals over the last four years. Residential prices relative to an index of nominal GDP show a marked increase over the last three years, although mortgage payments-to-income ratios do not show a sharp rise. 1/ As in the case of the equity market, changes in sentiment could have a significant effect on property prices. While the supply of most types of residential, commercial and retail property forecast for 1994-95 appears ample, excess demand could develop if foreign companies continue to locate in Hong Kong, and if the banks were to relax their mortgage lending policies, as they are planning to do from mid-1994 onwards. In the past the authorities have

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1/ The ratio of monthly mortgage repayment (assuming a 70 percent loan-to-assessment ratio) to average household income was 78 percent in the fourth quarter of 1991. After rising to 84 percent in second quarter of 1992, it fell steadily to 64 percent in the first quarter of 1993, but increased again to 70 percent in the following quarter.

tried to reduce the upward pressure on prices by easing supply bottlenecks through increasing land supply and ensuring adequate imported labor for the construction sector. 1/ Combined with restrictive bank lending policies, this has had some effect in curtailing excessive speculative activity.

4. Implications of asset price movements

Asset price increases can have a direct effect on economic activity, mainly through private consumption and investment, and can also have implications for the financial system. However, unlike several other economies where asset price increases made the financial sector--especially the banks--highly vulnerable to any downturns, the situation in Hong Kong appears to be different.

Real private consumption increased by an annual average of nearly 7 percent over the last three years. It is difficult, however, to separate the effect on consumption of an increase in asset prices from that of low real interest rates, and a recovery in consumer confidence following the lessening of political uncertainties. Although estimates of household net worth are not available, it is likely to have increased substantially over 1989-93, reflecting both gains from equity holdings as well as capital gains on property. The direct effect on consumption of increases in net wealth may have been considerable, despite the fact that net worth entails significant unrealized capital gains, so that household liquidity is not necessarily increased. 2/ In the case of property, there is some evidence that it has been used as collateral to increase borrowing in the form of equity loans, although the effect has been limited.

In the case of the corporate sector, the equity price increases lead to a decline in the cost of capital, and to increase in the firms' net worth that can be used as collateral for credit. Both these factors facilitate investment, which grew noticeably between 1989 and 1993. Rapidly rising equity prices also enabled large companies to shift from bank loans to issuing new equity and convertible (equity-linked) bonds at very low interest rates. There has also been a marked increase in the listing of new

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1/ The annual restriction on the supply of new land to 50 hectares, in accordance with the Sino-British Joint Declaration, has been instrumental in constraining the supply of properties, although in most years there has been joint agreement with China to somewhat exceed this limit.

2/ In 1993 alone, the capitalization of the Hong Kong stock market increased by nearly US$150 billion, owing largely to the increase in equity prices by 116 percent. While data are not available on the proportion of the incremental wealth accruing to domestic residents, it is not unreasonable to assume that it may exceed US$100 billion. Even a US$100 billion increase--assuming a marginal propensity to consume from wealth of around 0.04, an estimate consistent with that available for other countries in the region--would suggest a boost to domestic consumption of 4 percent of GDP.

companies, with a record listing of 62 companies in 1992, raising nearly US$2 billion. For the nonfinancial sector as a whole, leverage (ratio of debt to equity) fell markedly, and now averages less than 20 percent. 1/ Increased investment, in turn, has increased productivity and profits of the corporate sector, thereby having a further beneficial effect on these companies' stock prices.

Finally, unlike other economies, the banking sector in Hong Kong has not been exposed in the equity sector since loans for equity purchases have been limited. In addition, while banks have increased their own equity investments in recent years, these remain a small proportion of banks' assets. However, as noted above, banks have extended significant loans for property purchases which could make them vulnerable to any sharp correction in property prices. Moreover, such a downturn could also reduce the value of the collateral used by property companies.

A downturn in asset prices could, of course, potentially be a cause for concern in terms of its effect on consumer and investor confidence, and for its implications for economic activity. However, there are apparently three important factors that suggest that the banking system is sound and a downturn in asset prices is unlikely to have a major direct effect on it. First, banks have already curtailed new lending to the property sector and while their existing property loans are a large proportion of their domestic loans, as a proportion of their total domestic and overseas operations, their exposure is small. Second, all banks have met, and often significantly exceeded, the Bank for International Settlements requirements for capital adequacy, with the average capital ratio exceeding 15 percent. Third, bank profits rose by an average of 30 percent over the last three years, reflecting increased lending volumes, widening intermediation margins, and increased income from investments. These factors suggest that, in the absence of a dramatic deterioration in the economic or political environment in Hong Kong, the financial position of the banking sector is likely to remain strong.

1/ See Schinasi and Hargraves (1993) and Hargraves and others (1993) for a comparable discussion of the effects of increases in equity prices on the corporate sectors in Japan, the United States, and the United Kingdom.

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III. Alternative Medium-Term Scenarios

1. Introduction

        This chapter assesses Hong Kong's medium-term prospects under three
alternative scenarios: a reference scenario; a fiscal stimulus scenario;
and a scenario of slower growth in China that reduces demand for Hong Kong's
exports. A small, forward-looking model is used focusing on the links
between the inflation process, the external balance, and aggregate demand.
The core behavioral relationships in the model are represented by four
estimated equations describing consumer price inflation, export and import
volumes, and export prices. Additional relationships link import prices to
foreign export prices, and domestic demand to changes in the terms of trade.

        The reference scenario is based on the assumption that private spending
growth remains strong over the near term, reflecting a continuation of
accommodative financial conditions, while fiscal policy is assumed to be
neutral. Foreign variables follow paths based on World Economic Outlook
(WEO) projections for Hong Kong's trading partners. This benchmark scenario
is then used to assess the implications of two alternative assumptions. The
fiscal stimulus scenario examines the effects of the projected rise in
government spending owing to the planned scaling-up of activity on the
Airport Core Projects (ACP). The second alternative assesses the impact on
Hong Kong of a sharp decline in growth in China's imports.

        The results for the reference scenario suggest that a continuation over
the near term of strong private demand would result in output growth and
inflation remaining close to recent rates. Over the medium term, however, a
loss in external competitiveness would cause output growth to temporarily
fall below its longer-term potential rate, while inflation would decline
gradually to 5-6 percent from the 8-9 percent rates observed recently.
Including the fiscal stimulus from the ACP implies a more pronounced cycle,
with both output growth and inflation rising in the near term above recent
levels. As the stimulus to demand dissipates, the consequent slowdown in
activity is sharper than in the reference scenario. Finally, a weakening in
China's import growth would temporarily reduce growth in Hong Kong, but the
model suggests that domestic costs and prices would adjust quickly to the
change in external circumstances, moderating the impact on real output over
the medium term.

2. The model

        The model used for the medium-term scenarios is based on the four
estimated relationships shown in Table 9. All estimation was performed
using ordinary least squares on annual data starting in the 1970s and ending
in 1992. Given Hong Kong's fixed exchange rate, the structure of the model
is made particularly simple because domestic monetary conditions are tied
down to exogenous, foreign conditions. This eliminates the need to specify
relationships for the response of domestic interest rates to changes in

Table 9. <u>Estimated Equations of the Medium-Term Model</u>
(t-ratios in parentheses)

1. <u>Inflation</u>

$$\pi_t = 0.65\ \pi_{t-1} + 0.35\ \pi^e_{t+1} + 0.67\ gap_t$$
$$(3.0)(3.6)$$

Period: 1972-92 $\bar{R}^2$: 0.772   Durbin-Watson: 1.98 $F(2,18)$: 32.6

2. <u>Export volume</u>

$$\log(x_t) = -1.13\ \log(px_t/pxw_t) + 0.73\ \log(imw_t) + 6.58$$
$$(3.3)(12.3)(17.3)$$

Period: 1976-92 $\bar{R}^2$: 0.984   Durbin-Watson: 1.43 $F(2,14)$: 477.6

3. <u>Import volume</u>

$$\log(m_t) = -0.24\ \log(pm_t/cpi_t) + 1.03\ \log(dd_t) - 0.59$$
$$(1.9)(31.6)(1.4)$$

Period: 1970-92 $\bar{R}^2$: 0.991   Durbin-Watson: 0.74 $F(2,20)$: 1248.9

4. <u>Export price</u>

$$\log(px_t) = 0.53\ \log(pxw_t) + 0.49\ \log(cpi_t) + 0.21\ \log(imw_t/yp_t)$$
$$(14.4)(6.3)(3.7)$$

$$- 0.02\ tt + 1.12$$
$$(4.0)(2.6)$$

Period: 1976-92 $\bar{R}^2$: 0.999   Durbin-Watson: 3.03 $F(4,12)$: 2847.4

Variable definitions:

π = consumer price inflation (see text for definition of π^e_{t+1})
gap = gap between actual real GDP and potential (as percent of potential)
x = real domestic exports of goods and nonfactor services
px = deflator for exports expressed in U.S. dollars
pxw = weighted average of partner country export prices in U.S. dollars using Hong Kong's export weights
imw = weighted average of partner country merchandise import volumes using Hong Kong's export weights
m = total real imports less re-exports of goods and nonfactor services
pm = deflator for imports expressed in U.S. dollars
cpi = consumer price index expressed in U.S. dollars
dd = total real domestic demand
yp = potential real GDP
tt = linear time trend

Source: Staff estimates.

activity and prices, and the reaction of the exchange rate and domestic demand to changes in interest rates. As a result, the model has only one channel through which increases in aggregate demand are eventually crowded out: higher demand raises inflation, which increases the level of domestic prices and costs over time; declining competitiveness then reduces net exports, offsetting the initial increase in aggregate demand. 1/

The equation for inflation is perhaps the most important in terms of the dynamic paths that the model generates in response to exogenous shocks, as it determines the response over time of the price level to excess demand or supply pressures. As shown in equation (1), CPI inflation depends on the gap between actual and potential output, 2/ and a weighted average of last period's inflation and next period's expected inflation. 3/ This dependence of inflation on both backward- and forward-looking elements can be derived from general models of wage and price inertia. 4/ The estimated parameters indicate a weight of about two thirds on past inflation and one third on expected future inflation, while a 1 percentage point increase in the output gap raises inflation by almost 0.7 percentage point on impact. 5/

Equation (2) indicates that the demand for domestic exports depends on the price of Hong Kong's exports relative to those in trading partners, and the volume of world merchandise imports weighted by Hong Kong's export shares. 6/ The results show that relative prices and foreign activity have strong and significant effects. Specifically, a 1 percent increase in the relative price of Hong Kong's exports leads to a 1 1/4 percent fall in

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1/ The model is used primarily for short- to medium-run analysis, and thus does not embody longer-run asset dynamics associated with changes in foreign and domestic saving.

2/ Potential output was constructed for the historical period by removing the cyclical component from observed GDP using the Hodrick-Prescott filter (Hodrick and Prescott (1980)); for the projection period, potential is assumed to grow by 5 percent per year.

3/ Expected inflation over the historical period was estimated using the fitted values from an auxiliary regression of the realization of next-period inflation on information available in the current period. For simulation purposes, expectations are equal to the model's prediction of future inflation, and thus are assumed to be "model consistent."

4/ For a discussion of the derivation of this type of reduced-form inflation equation see Chadha, Masson, and Meredith (1992).

5/ The latter response is more than double that found, on average, for the major industrial countries in Chadha and others (1992), providing empirical support for the hypothesis that Hong Kong has unusually flexible price and wage setting behavior in response to market pressures.

6/ Re-exports have been removed from both total exports and imports to obtain measures of trade flows that abstract from the transshipment of goods through Hong Kong.

export volume, whereas a 1 percent rise in the import volumes of trading partners generates a 3/4 percent increase in export volume.

The demand for imports (equation (3)) is estimated as a function of real total domestic demand and the ratio of import prices to the consumer price index (CPI). Both explanatory variables are significant. The results suggest that the volume of imports is less sensitive than that of exports to price movements, with a 1 percent rise in the relative price leading to a fall in import volume of only 1/4 percent. Import demand is roughly homogenous with respect to domestic demand, with a 1 percent rise in domestic demand implying a slightly greater than 1 percent increase in import volume.

The equation for the price of Hong Kong's exports is a reduced form relationship incorporating both demand and supply elements (equation (4)). The explanatory variables are: the price of competitors' exports; the domestic consumer price index; the ratio of partner countries' import demand to Hong Kong's potential output; and a time trend. The first and second variables proxy for the effects of pricing-to-market and domestic cost pressures; the third factor reflects the role of capacity constraints; and the fourth allows for different secular rates of productivity growth in the traded and nontraded goods sectors. 1/ The results indicate that Hong Kong's export prices depend equally on competitors' export prices and on the domestic CPI, with weights that sum roughly to unity. Changes in partner countries' imports relative to Hong Kong's productive capacity also affect export prices, while the time trend has a negative coefficient. 2/ For import prices, the hypothesis that Hong Kong is a price taker in world markets was tested by regressing import prices against partner country export prices and other variables. Since only partner country export prices were significant--with a coefficient of about unity--this constraint was imposed.

Finally, a channel of feedback from the external sector to private domestic demand is introduced by making the latter dependent on changes in the terms of trade and the consequent effect on real incomes. Specifically, the deviation in domestic demand growth from an assumed underlying trend is a function of the percentage change in the terms of trade weighted by the

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1/ To the extent that productivity growth is faster for traded goods production than for nontraded goods, use of the CPI as a proxy for the cost of traded goods production biases upward secular cost increases.

2/ The parameter of minus 0.02 on the time trend reduces growth in export prices by 2 percent per year. Assuming this offsets the bias induced by the presence of nontraded goods in the CPI, and given the parameter of 0.5 on the CPI in equation (4), one can infer that secular growth in the CPI exceeds that in export costs by about 4 percent per year.

share of foreign trade in aggregate output. 1/ Fiscal policy, as
reflected in the level of government spending, is exogenous in the
model. 2/

3. Medium-term scenarios

a. Reference scenario

Using the model for medium-term projections requires specifying
exogenous growth rates for foreign variables, potential output, the
underlying trend in private domestic demand, and fiscal policy. The paths
for foreign variables are based on the October 1993 WEO projections for
Hong Kong's trading partners. This implies growth in the weighted average
of competitors' export prices of 2 percent per year during 1994-98, while
growth in imports of partner countries is projected to slow from about
10 percent per year in 1994 to 8 1/2 percent by 1998 (the end of the medium
term).

Growth in Hong Kong's potential output is assumed to remain at the
5 percent pace estimated for recent years. 3/ Trend private domestic
demand (the level of private domestic demand in the absence of shocks to the
terms of trade) is assumed, over the longer run, to grow at a level
compatible with potential output growth, that is, 5 percent per year. Over
the near term, however, domestic demand growth is assumed to remain above
this underlying trend, with growth of 7 percent in 1994 and 6 percent in
1995. This assumption reflects a continuation of the robust growth over the
past three years associated with accommodative financial conditions, as well
as the expected effects of recent asset price increases.

The results for the reference scenario are summarized in Section 1 of
Table 10. Real GDP growth remains above potential in 1994, rising by
5 1/2 percent, causing a positive gap to open up between actual and
potential output. 4/ Inflation picks up slightly to 9 percent, while the
external balance declines in relation to GDP as a result of reduced
competitiveness. In 1995, output growth slows to 5 percent, as the stimulus
to private domestic demand dissipates. Inflation stays close to 9 percent,

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1/ Other influences on domestic demand, such as financial conditions and
growth in permanent income, are incorporated in the exogenous trend growth
path.
2/ As taxes are assumed to remain stable in relation to income, the
effects of tax changes on private spending were not modeled.
3/ A continuation of potential growth at this rate assumes that major
public works projects, such as the ACP, will be completed as planned. Thus
the supply effects of the ACP are incorporated in the reference scenario,
while the demand effects are not. By implication, the demand stimulus of
the ACP in the reference scenario is offset by a contraction in other areas
of fiscal policy such that the overall fiscal stimulus is neutral.
4/ The gap between actual and potential output is zero in 1993.

Table 10. Hong Kong: Alternative Medium-Term Scenarios, 1994-2004

(Percent per year, unless otherwise indicated)

	1993 Est.	1994	1995	1996	1997	1998	1999-2004
				Projection			
1. Reference scenario							
Real GDP growth	5.4	5.5	4.9	4.4	4.7	4.9	5.2
Output gap 1/	--	0.4	0.3	-0.3	-0.6	-0.6	--
Domestic demand growth	7.6	8.0	6.9	5.5	5.2	5.0	5.0
CPI inflation	8.5	8.9	8.8	7.8	6.5	5.5	5.1
External balance 2/	1.0	-0.4	-1.2	-1.5	-1.5	-1.4	-0.7
2. Fiscal stimulus from ACP							
Real GDP growth	5.4	6.2	4.8	3.8	4.0	4.5	5.3
Output gap 1/	--	1.2	1.0	-0.1	-1.0	-1.5	--
Domestic demand growth	7.6	10.6	8.1	5.2	3.4	3.2	4.8
CPI inflation	8.5	10.0	10.3	8.8	6.3	4.2	5.0
External balance 2/	1.0	-1.6	-3.1	-3.3	-2.1	-1.5	-1.1
3. Slowdown in China's import growth							
Real GDP growth	5.4	4.8	4.7	4.6	5.0	5.5	5.0
Output gap 1/	--	-0.2	-0.5	-0.9	-0.9	-0.4	0.2
Domestic demand growth	7.6	7.3	6.0	4.6	4.4	4.5	5.0
CPI inflation	8.5	7.5	6.1	4.6	3.6	3.4	5.0
External balance 2/	1.0	-1.0	-2.1	-2.3	-2.4	-1.9	-1.4

Source: Staff estimates and projections.

1/ Deviation of actual from potential GDP as a percent of potential.
2/ Balance on goods and nonfactor services as a percent of nominal GDP.

however, as the gap between actual and potential output remains positive, resulting in a further decline in competitiveness and crowding out of net exports. By 1996, however, real growth slows to about 4 1/2 percent, reversing the output gap; the consequent reduction in demand pressures causes inflation to fall below 8 percent. In subsequent years, inflation declines further, reflecting a continued diminution of demand pressures, while the external deficit troughs at 1 1/2 percent of GDP.

Over the 1999-2004 period, output growth averages 5 1/4 percent per year, slightly above potential growth, as the negative output gap existing in 1998 is eliminated. Inflation averages 5 percent per year, less than the long-run rate of inflation of 6 percent generated by the model, owing to the need to reverse the competitiveness losses experienced during 1994-96. The fact that inflation remains somewhat higher than in most trading partners in the long run reflects two assumptions that lead to an ongoing appreciation of Hong Kong's equilibrium real exchange rate: (i) continuing rapid growth in external activity (especially in China) that raises the demand for Hong Kong's exports relative to productive capacity; and (ii) continuing rapid productivity growth in traded goods production that lowers the relative price of traded to nontraded goods, implying that Hong Kong's CPI can grow more rapidly than CPIs in trading partners without a loss of competitiveness in the traded goods sector. [1]

b. Fiscal stimulus

This scenario explores the implications for output and prices of the fiscal expansion associated with the planned scaling-up of activity on the ACP and other public works projects. [2] Conceptually, the demand stimulus is associated with the projected change in capital spending over the 1994-97 period as a ratio to GDP. Operationally, the starting point for the calculation of the stimulus is the medium-term projection for government capital spending presented in the 1993/94 budget. These budget estimates are converted to a calendar year basis by assuming that the spending was evenly allocated over the four quarters of the fiscal year. Projected borrowing for the ACP by quasi-autonomous public enterprises--specifically the Provisional Airport Authority (PAA) and the Mass Transit Railway Corporation (MTRC)--is also added to government capital spending as a proxy for the actual expenditures that these bodies will undertake on the ACP. Finally, the estimated underspending of the capital budget in 1993/94 is assumed to represent a shifting of expenditures evenly over the next three years. The results of these calculations are as follows:

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[1] See Chapter 1 for a discussion of this "Balassa" effect.
[2] We look at the demand effects only; as noted above, the supply effects are incorporated in the assumption for potential growth in the reference scenario.

	1993	1994	1995	1996	1997	1998
	(As a percent of GDP)					
Government capital spending	5.5	5.9	5.4	4.7	4.2	4.2
PAA and MTRC borrowing	--	1.3	2.3	2.4	0.6	--
Carryover of 1993/94 capital underspending	--	0.2	0.3	0.3	--	--
Total of above	5.5	7.4	8.0	7.4	4.8	4.2
Stimulus to spending growth	--	+1.9	+0.6	-0.6	-2.6	-0.6

The results of adding the fiscal stimulus to the reference scenario are shown in Section 2 of Table 10. The shock to domestic demand in 1994 raises GDP growth to 6 1/4 percent from about 5 1/2 percent in the reference scenario. Roughly two thirds of the demand stimulus, however, leaks out in the form of a reduction in real net exports, reflecting the direct effect on imports of higher domestic demand and the loss in competitiveness due to higher inflation. CPI inflation rises to 10 percent in 1994 from 9 percent in the reference scenario in response to increased pressures in domestic factor and product markets. In 1995, output growth declines to about 5 percent, similar to the reference scenario, as the additional stimulus to spending is offset by further declines in competitiveness. Inflation rises to 10 1/4 percent, reflecting the continuing gap between actual and potential output that results from faster growth in 1994.

By 1996, the stimulus to activity starts to reverse following the peak in spending on the ACP. At the same time, there is a further reduction in net exports arising from the accumulated decline in competitiveness. Thus, real GDP growth slows to 3 3/4 percent in 1996, and picks up only gradually during 1997-98, causing the level of output to fall about 1 1/2 percent below potential. Inflation declines sharply during 1996-98 in response to the rising output gap, reaching a trough of 4 1/4 percent in 1998. Over the long run, both inflation and output growth converge to levels similar to those in the reference scenario.

c.   Slower import growth in China

Rapid growth in China, and the associated rise in external demand for Hong Kong's trade and financial services, has played a key role in sustaining strong growth in Hong Kong's exports in spite of a rising real exchange rate. In the reference scenario, growth in the volume of China's merchandise imports is assumed to moderate gradually from about 20 percent in 1994 to 12 percent by the end of the 1990s. In the past, however, China's import performance has been characterized by stop-and-go cycles, as

evidenced by the experience in the mid-1980s and the early 1990s. 1/ In this alternative scenario, the medium-term model is used to explore the implications for Hong Kong of a sharp slowdown in China's imports. In particular, it is assumed that China's import growth falls to 5 percent during 1994-97 before returning to the longer-term path of 12 percent growth thereafter.

As shown in Section 3 of Table 10, real GDP growth in 1994 falls to 4 3/4 percent, reflecting the impact of lower external demand growth. Inflation responds quickly to current and prospective reductions in real growth, however, dropping to 7 1/2 percent in 1994 from almost 9 percent in the reference scenario, while the external balance is reduced by 1/2 percent of GDP compared with the reference scenario. Inflation remains, on average, about 2 1/2 percentage points below the level in the reference scenario during 1995-97, reflecting a rapid adjustment of costs and prices to the slowing in external demand. As a result, the initial impact on output is not long-lasting, and GDP growth recovers to roughly the same rate as in the reference scenario during 1995-97. 2/

4.   Summary

Under the reference scenario, the model suggests that inflation and output growth are not likely to moderate in the near term given the stimulus to demand expected from continuing accommodative financial conditions and the wealth effect of asset price increases. Accompanying these demand pressures, a further decline in the external balance is projected in the near term. Over time, as the stimulus to private spending dissipates, output growth temporarily falls below its potential growth rate, leading to a gradual decline in inflation. The difference between Hong Kong's inflation rate and that in trading partners over the longer run is consistent with the real exchange rate appreciation associated with robust growth in external activity and rapid productivity growth in Hong Kong's traded goods sector.

Adding the fiscal stimulus associated with the ACP to the near-term growth in private spending assumed in the reference scenario reinforces the cycle in activity and inflation described above. Both output growth and inflation rise over the near term from recent rates, while the external balance declines more sharply. The associated loss in competitiveness leads to a more pronounced slowdown in later years. A sharper decline in China's import growth than assumed in the reference scenario dampens activity in Hong Kong initially, but the effect over time is moderated by a rapid

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1/ In both 1986-87 and 1990, China's volume of imports fell by about 15 percent in conjunction with downturns in economic activity.

2/ A more abrupt shock was also simulated, in which China's imports fell by 15 percent in the first year before recovering to the underlying trend growth rate. This yielded GDP growth in Hong Kong of 3 3/4 percent in 1994 combined with a decline in inflation to about 6 percent.

adjustment of domestic prices and costs to the change in external circumstances.

In general, the cyclical paths associated with these medium-term scenarios suggest that Hong Kong's economy could adjust quite flexibly to shocks to internal and external demand. This flexibility results in part from the high sensitivity of inflation to excess demand pressures. It also reflects the forward-looking nature of inflationary expectations, which reduces the "stickiness" of inflation in the face of shocks that affect both current and future demand. Finally, the large size of Hong Kong's trade sector implies that a relatively high proportion of a shock to domestic demand leaks out directly in the form of increased imports.

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IV.   Some Implications of the Proposed Pension Scheme

1.   Introduction

In December 1993, the Hong Kong Government proposed the establishment of a compulsory public pension scheme. The proposal envisages the payment of a flat-rate benefit, possibly equal to 30 percent of the median wage, for all citizens aged 65 and over, financed by a flat-rate payroll tax on earnings. Although the exact form of the scheme and its implementation date are still undecided, it is nevertheless worth investigating some possible implications of the proposal. Two of the most important implications relate to the sustainability over the longer term of initial contribution and benefit rates and the initial effects on private savings behavior. 1/

In a pay-as-you-go scheme, such as that proposed for Hong Kong, current benefits are entirely financed by current contributions; no fund is accumulated to finance future benefit payments. The relationship between initial contribution and benefit rates is a function of the number of employed relative to the number of elderly. Hence, the sustainability of initial contribution and benefit rates is critically dependent on demographic changes. In this regard, the proportion of elderly in Hong Kong is expected to increase greatly, implying either a significant decrease in the benefit rate or a substantial increase in the contribution rate. The experiences of some countries of the Organization for Economic Cooperation and Development suggest that such changes in the initial parameters of the system are politically difficult and often avoided by recourse to general budgetary support.

From a macroeconomic perspective, the introduction of such a scheme is likely to result in a reduction in private savings. The current population expects to receive benefits paid for by the next working generation. Thus, provided the former generation values the next working generation's utility less than their own, they will perceive their lifetime wealth to have risen, and will thus tend to save less.

This chapter assesses the implications of the proposed pension scheme for the sustainability of initial benefit and contribution rates and private savings over the next 25 years. It should be noted, however, that the results presented are hypothetical projections, not predictions, and are intended to illustrate some of the potential consequences of the scheme.

1/ The imposition of a payroll tax unrelated to the benefits an individual derives from the system could also create disincentives to work, thus reducing the labor supply.

2.   Implications of demographic changes for
      contribution and benefit rates

      Under a pay-as-you-go pension system, current pension payments equal
current contributions. The relationship between benefit and contribution
rates and the "support ratio" (the number of workers per pensioner) can be
summarized by the equation ß/α=S, where α is the contribution rate, ß is the
ratio of benefit to the average wage (the replacement rate), and S is the
support ratio. Thus, a lower support ratio implies a higher contribution
rate and/or a lower replacement rate. In other words, if the replacement
rate is constant and the support ratio falls, the contribution rate must
rise. Hence, the sustainability of the initial contribution and replacement
rates depends on the evolution of the support ratio, and thus, the
population structure.

      For the purposes of this exercise, the pension scheme is assumed to be
implemented in 1994. This assumption is only for reasons of exposition, and
the results do not change significantly if the scheme were to commence
somewhat later.

      Staff projections of Hong Kong's population structure (Chart 6, top
panel) show a continuous increase in the share of the elderly (defined as
the population aged 65 and above) at the expense, initially, of the share of
the young (14 and under), and later, of the share of the working age
population (15 to 64 years of age). 1/ The elderly population's share
rises from 9 percent in 1993 to 12 percent in 2005, and reaches almost
16 percent in 2018. The working age population's share rises from
70 1/2 percent to 72 1/2 percent over the period 1993-2005, remains
unchanged until 2013, and then declines to 68 percent in 2018.

      For employment, the staff assumes that participation and unemployment
rates remain at their 1993 levels. 2/ Hence, the support ratio is
projected to decline (Chart 6, middle panel) from 5 in 1993 to 4 in 2005,
reaching 2 3/4, almost half its 1993 level, in 2018.

      An initial replacement rate of 30 percent of the median wage (about
21 percent of the average wage) is assumed, in line with suggestions made in
discussions of this issue in Hong Kong. If this rate is to be held
constant, given the projected time path of the support ratio, the
contribution rate will need to almost double over the period 1994-2018, from
4 1/2 percent in 1994 to 8 percent by 2018 (Chart 6, bottom panel). As the

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1/ Details of the population and employment projections are given in the
Annex to this chapter. Staff projections are used, rather than the official
population projections, because the latter are somewhat outdated and do not
extend far enough into the future. However, there is no significant
divergence between the two.
      2/ The participation rate has fallen over the last 20 years, however, the
staff assume this trend will cease.

CHART 6

HONG KONG

DEMOGRAPHIC-BASED PROJECTIONS, 1993-2018

Percent of total population

POPULATION 65 YEARS AND OVER

Ratio

SUPPORT AND DEPENDENCY RATIOS

Working age / pensioner

Employed / pensioner

Percent

RATIO OF PENSION CONTRIBUTIONS TO AVERAGE EARNINGS
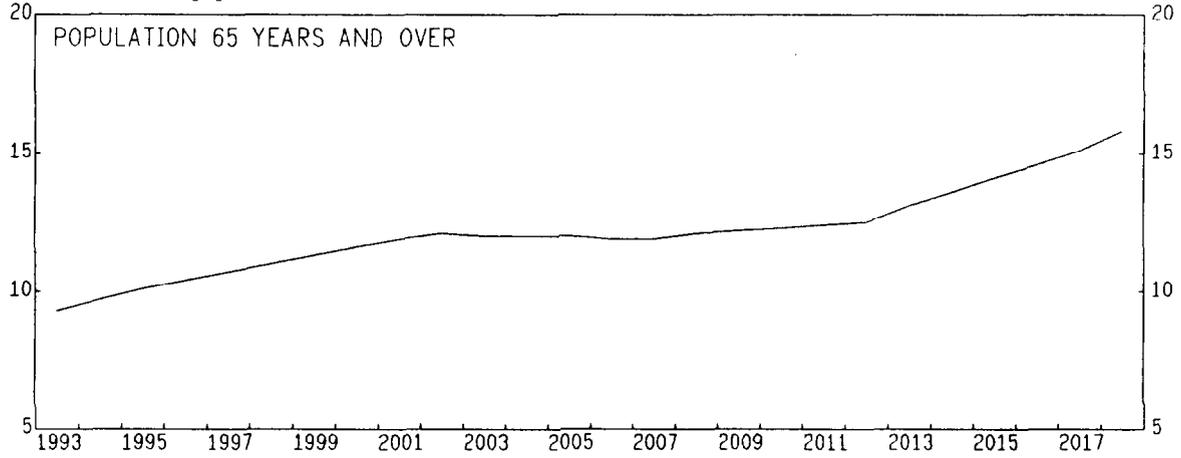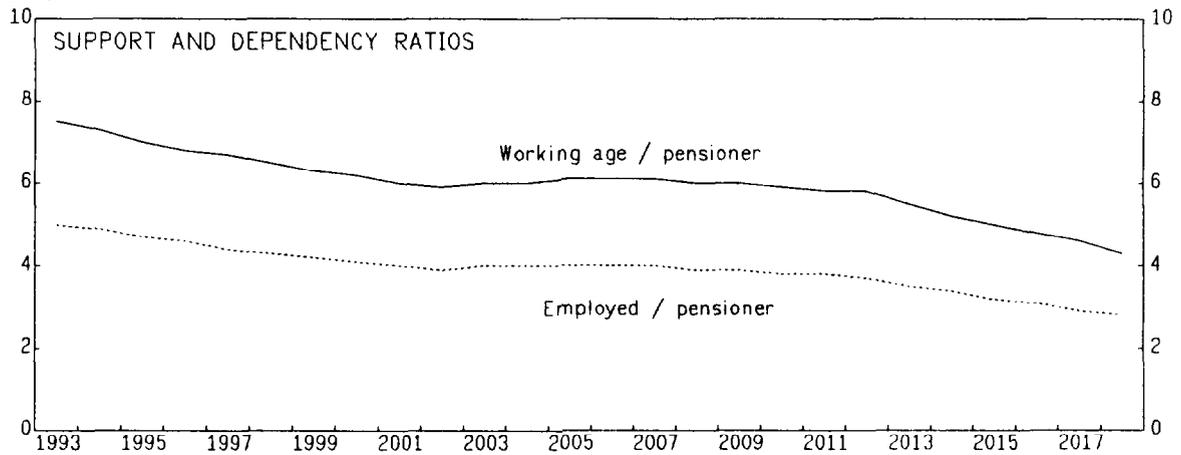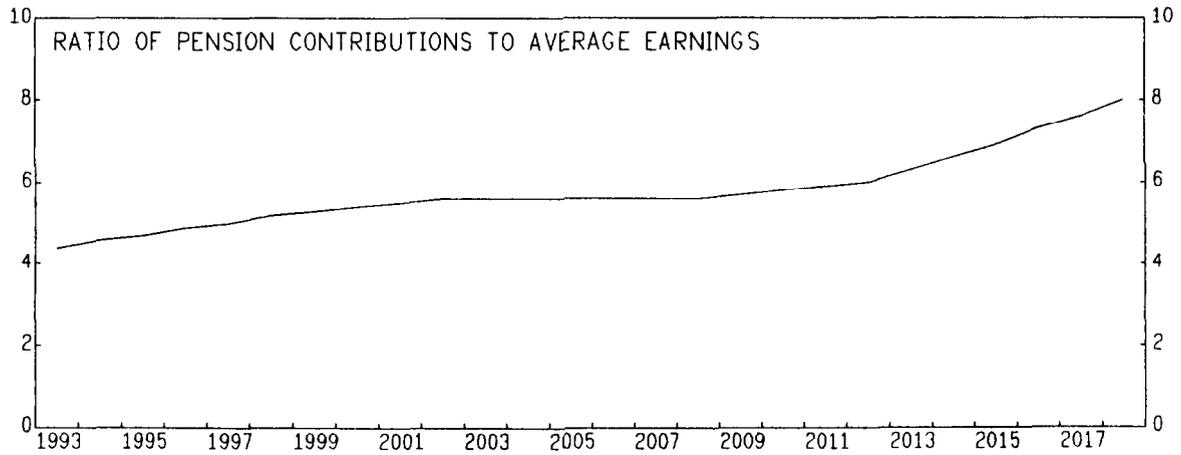
Source: Staff projections.

highest individual average tax burden is currently 15 percent, and less than half of the work force currently pays the salary tax, the pension contribution would represent a substantial increase in the level and coverage of taxation. 1/ Alternatively, if the contribution rate were held constant at the 1994 level, the replacement rate would almost be halved from its initial value of 21 percent of the average wage to 11 percent in 2018.

The implementation of the substantial changes in replacement and contribution rates implied by demographic changes may be politically difficult. If the requisite changes are not made, general budgetary support would become necessary. For Hong Kong, staff estimates indicate that government support of the scheme that would be required to maintain the initial contribution and replacement rates would rise to 1/2 percent of GDP by 2005, and to 1 1/4 percent of GDP in 2018.

3. Aggregate demand effects

The proposed pension scheme would affect aggregate demand through its impact on private spending. 2/ Private spending, in turn, depends on the net effect on spending of those receiving the pension versus those paying the contributions.

The estimates of the effect on expenditure hinge on the time horizon over which individuals are assumed to make their decisions. If individuals only consider the short term (a Keynesian framework), then a contributor's expenditure will fall by the amount of the pension contribution multiplied by the contributor's propensity to consume. Similarly, a pension recipient's expenditure would rise by the amount of the pension payment multiplied by the recipient's propensity to consume. Thus, the net effect depends on the differences in the propensity to consume between contributors and recipients. As the recipients can be expected to consume all income, aggregate demand would increase by the total amount of pension contributions multiplied by the contributors' savings rate. 3/ At the other end of the spectrum is a Ricardian framework in which individuals have an infinite time horizon, in effect valuing the welfare of future generations identically to their own. In this case, the intergenerational transfer implied by the pension scheme would, under certain assumptions, be offset by

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1/ Only about 58 percent of workers in Hong Kong pay salary tax, and of these, only 7 percent are estimated to pay tax at the maximum average rate (the so-called "standard rate") of 15 percent.

2/ As the proposed scheme is pay-as-you-go, government savings will be unaffected, with government expenditure and revenue rising by the amount of pension payments.

3/ In this Keynesian framework, using a savings rate of 25 percent of income, aggregate demand would increase by about 1/2 percent of GDP.

correspondingly higher bequests. 1/ The net aggregate demand effect would then be zero.

Between these extremes is the life-cycle framework in which individuals have a time horizon extending to the expected end of their lives. In this framework, individuals smooth consumption over their lifetime, and hence base consumption decisions on their permanent income and wealth. Thus, older members of the population would see the introduction of the pension scheme as unambiguously making them wealthier; the younger would take into account both expected future benefits and contributions. The net change in the wealth of each group, weighted by their propensity to spend out of wealth, would then imply a given change in aggregate spending. This is the framework used below.

In the life-cycle context, the change in an individual's expenditure depends on the perceived net present value of the pension scheme. Individuals are assumed to discount the pension payments they expect to receive by a discount rate and to subtract similarly discounted pension contributions. The resulting net wealth is then assumed to be evenly divided over their remaining life. An annual discount rate of 3 percent is used, reflecting long-run values for real returns on assets for developed economies. The contribution rate that is expected to prevail in the future is assumed to be the rate existing at the time of the wealth calculation.

Under these assumptions, the pension scheme would increase the expenditure of the working age population by about 1/2 percent of GDP in 1994, declining to zero by 2013. 2/ The elderly's expenditure, assuming real wages and output grow at the same rate, is projected to rise from 1 3/4 percent of GDP in 1994 to 2 1/4 percent of GDP by 2005, and to reach 3 percent of GDP by 2018. Combining the impact effects on the expenditures of the working age and elderly, then, suggests a short-term stimulus to aggregate demand that could exceed 2 percent of GDP. An increase in aggregate demand of this proportion would be expected to add to inflation, reduce growth over the medium term, and weaken the external position.

1/ For example, one of the assumptions required is for all pensioners to leave bequests.

2/ Using alternative real discount rates of 1 percent and 5 percent, the increase in spending of the working age population in 1994 would be 1 1/3 percent of GDP and 1/4 percent of GDP, respectively. Changing the contribution assumption to the average contribution rate for the period 1994-2018 results in an increase in aggregate demand by the working age population of 1/3 percent of GDP in 1994.

Assumptions Underlying Population Projections

A base year of 1993 is taken, using estimated midyear population by age group and sex reported in the 1993 Hong Kong Annual Digest of Statistics. By making assumptions on death rates, birth rates and the level of immigration, the population is projected to the year 2018.

Death rates have been falling. For those aged 60 and above, the death rate is assumed to continue to decrease by the average rate of decrease over the period 1983-93, namely 1/4 of a percent per year. For the rest of the population, death rates are kept at 1993 levels. As in many other developed countries, birth rates have also been falling. For these projections, the live birth rates for each five-year age group of child-bearing-age women are assumed to decline by the average decline for that age group over the period 1983-93. The largest decline is for women aged 20-24, whose live birth rate has fallen over 6 percent per year over the last ten years. The smallest decline, 1/4 percent per year, is for women aged 35-39.

While immigration will change the structure and size of the population, it is difficult to project. The assumption used is that the present ceiling of 25,000 foreign workers will not be increased over the next 25 years. However, adding 10,000 immigrants a year to the working age population for the next 25 years would only increase the support ratio to 4 1/8 from 4 in 2005, and to 3 from 2 3/4 by 2018.

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Table 1. Hong Kong: Gross Domestic Product by Expenditure
at Constant (1980) Market Prices, 1988-93

	1988	1989	1990	1991	1992	1993 Jan.-June 1/
	(Percentage change)					
Consumption	8.4	4.2	6.2	9.0	8.4	8.1
Private	8.7	4.0	6.3	9.2	8.5	8.8
Government	5.1	6.1	6.0	7.1	7.5	1.7
Gross fixed capital formation	7.4	2.9	8.0	9.0	9.9	8.1
Private	8.3	1.6	8.7	10.6	10.6	...
Government	0.4	13.3	3.1	-2.6	4.0	...
Final domestic demand	8.1	3.8	6.7	9.0	8.8	8.1
Private	8.6	3.4	6.9	9.6	8.7	...
Government	3.5	8.5	5.0	3.9	10.5	...
Change in stocks 2/	0.8	-2.3	0.3	-0.4	1.3	-0.8
Total domestic demand	8.7	1.2	7.0	8.5	10.1	7.1
Net exports of goods and nonfactor services 2/	0.1	1.7	-3.2	-4.0	-4.8	-2.6
Exports of goods and nonfactor services	24.3	9.4	8.8	14.9	18.1	14.1
Exports of goods	26.4	10.2	9.2	16.6	19.2	14.8
Domestic exports	9.0	0.1	-0.5	0.4	0.3	-3.8
Re-exports	45.7	18.6	16.0	26.3	28.2	22.0
Exports of nonfactor services	12.4	4.3	5.9	3.6	10.3	8.4
Imports of goods and nonfactor services	25.4	8.5	11.4	17.8	20.8	14.7
Imports of goods	26.6	8.9	11.4	19.0	22.3	15.3
Imports of nonfactor services	16.5	5.9	10.7	8.0	6.4	8.1
Gross domestic product	8.3	2.8	3.2	4.1	5.3	5.3
	(In millions of Hong Kong dollars)					
Memorandum items:						
Consumption	162,762	169,622	180,204	196,478	212,996	110,467 3/
Private	148,162	154,131	163,786	178,897	193,050	100,271 3/
Government	14,600	15,491	16,418	17,581	19,946	10,196 3/
Gross fixed capital formation	62,753	64,559	69,712	75,995	83,535	42,533 3/
Private	55,727	56,596	61,504	68,000	75,221	...
Government	7,026	7,963	8,208	7,995	8,314	...
Final domestic demand	225,515	234,181	249,916	272,473	296,531	153,000 3/
Private	203,889	210,727	225,290	246,897	268,271	...
Government	21,626	23,454	24,626	25,576	28,260	...
Change in stocks	8,183	2,375	3,125	2,023	5,567	3,358 3/
Total domestic demand	233,698	236,556	253,041	274,496	302,098	156,358 3/
Net exports of goods and nonfactor services	13,717	17,878	9,647	-972	-14,157	-16,967 3/
Gross domestic product	247,415	254,434	262,688	273,524	287,941	139,391 3/

Source: Data provided by the Census and Statistics Department.

1/ Percentage changes calculated over corresponding year-earlier periods.
2/ Contribution to growth.
3/ First half of year.

Table 2.   Hong Kong: Gross Domestic Product by Expenditure
at Current Market Prices, 1988-92

	1988	1989	1990	1991	1992
	(In millions of Hong Kong dollars)				
Consumption	281,811	320,907	372,709	442,824	515,903
Private	251,803	284,581	329,192	391,314	451,757
Government	30,008	36,326	43,517	51,510	64,146
Gross fixed capital formation	115,742	134,821	153,046	177,332	206,593
Private	102,359	117,419	133,615	157,030	184,866
Government	13,383	17,402	19,431	20,302	21,727
Final domestic demand	397,553	455,728	525,755	620,156	722,496
Private	354,162	402,000	462,807	548,344	636,623
Government	43,391	53,728	62,948	71,812	85,873
Change in stocks	14,132	3,463	5,728	4,098	10,959
Total domestic demand	411,685	459,191	531,483	624,254	733,455
Net exports of goods and nonfactor services	21,972	39,966	27,376	19,128	13,978
Exports of goods and nonfactor services	578,559	668,549	748,430	887,382	1,068,475
Exports of goods	493,069	570,509	639,874	765,886	924,952
Domestic exports	217,664	224,104	225,875	231,045	234,124
Re-exports	275,405	346,405	413,999	534,841	690,829
Exports of nonfactor services	85,490	98,040	108,556	121,496	143,522
Imports of goods and nonfactor services	556,587	628,583	721,054	868,254	1,054,497
Imports of goods	501,174	565,219	645,200	782,042	958,462
Imports of nonfactor services	55,413	63,364	75,854	86,212	96,035
Gross domestic product	433,657	499,157	558,859	643,382	747,432
	(In percent of GDP)				
Memorandum items:					
Consumption	65.0	64.3	66.7	68.8	69.0
Gross fixed capital formation	26.7	27.0	27.4	27.6	27.6
Final domestic demand	91.7	91.3	94.1	96.4	96.7
Change in stocks	3.3	0.7	1.0	0.6	1.5
Total domestic demand	94.9	92.0	95.1	97.0	98.1
Net exports of goods and nonfactor services	5.1	8.0	4.9	3.0	1.9

Source: Data provided by the Census and Statistics Department.

Table 3. Hong Kong: Gross Domestic Product by
Sector at Current Prices, 1987-91

	1987	1988	1989	1990	1991
	(In millions of Hong Kong dollars)				
Agriculture and fishing	1,358	1,437	1,415	1,432	1,441
Mining and quarrying	257	229	224	210	222
Manufacturing	75,761	83,182	89,645	92,241	92,693
Electricity, gas, and water	9,691	10,200	10,860	12,612	13,462
Construction	16,400	19,900	24,437	29,836	34,486
Wholesale, retail, and export/import trade, restaurants and hotels	80,720	98,518	113,998	130,542	155,616
Transport, storage, and communications	30,309	38,053	42,214	50,526	57,746
Finance, insurance, real estate, and business services	63,365	79,436	94,030	111,825	138,733
Community, social, and personal services	52,298	60,195	69,224	80,334	95,790
Ownership of premises	35,901	43,525	51,732	58,141	66,686
Adjustment for financial services 1/	-17,743	-21,313	-23,800	-30,829	-44,737
Gross domestic product at factor cost	348,317	413,362	474,479	536,870	612,138
Indirect taxes less subsidies	18,649	21,451	25,390	29,614	36,323
Gross domestic product at market prices 2/	366,966	434,813	499,869	566,484	648,461
	(In percent of GDP)				
Memorandum items: 3/					
Manufacturing	21.8	20.1	18.9	17.2	15.1
Wholesale, retail, and export/import trade, restaurants, and hotels	23.2	23.8	24.0	24.3	25.4
Finance, insurance, real estate, and business services	18.2	19.2	19.8	20.8	22.7
Community, social, and personal services	15.0	14.6	14.6	15.0	15.6

Source: Data provided by the Census and Statistics Department.
1/ An imputed service charge, equal to net interest receipts for the banking sector.
2/ Production-based estimate. Difference between production-based estimate and
expenditure-based estimate (see Appendix Table 2) reflects statistical discrepancy.
3/ Measured relative to production-based GDP at factor cost.

Table 4.   Hong Kong: Composition of Gross Fixed Capital Formation
at Constant (1980) Market Prices, 1988-92

	1988	1989	1990	1991	1992
	(In millions of 1980 Hong Kong dollars)				
Gross fixed capital formation	62,753	64,559	69,712	75,995	83,535
Private	55,727	56,596	61,504	68,000	75,221
Public	7,026	7,963	8,208	7,995	8,314
Transfer costs of land					
and buildings	3,396	2,973	3,176	4,395	5,052
Private	3,396	2,973	3,176	4,395	5,052
Public	--	--	--	--	--
Buildings and construction	19,317	21,188	22,758	22,835	22,807
Private	12,947	13,978	15,211	15,714	15,277
Public	6,370	7,210	7,547	7,121	7,530
Residential buildings	8,937	8,920	9,607	9,208	9,438
Private	6,426	6,247	7,131	6,969	6,885
Public	2,511	2,673	2,476	2,239	2,553
Nonresidential buildings	5,918	7,011	7,912	2,562	7,865
Private	4,976	5,556	6,277	7,005	6,631
Public	942	1,455	1,635	1,557	1,234
Other construction	4,462	5,257	5,239	5,065	5,504
Private	1,545	2,175	1,803	1,740	1,761
Public	2,917	3,082	3,436	3,325	3,743
Real estate developers'					
margin	13,879	13,757	15,545	15,591	14,881
Private	13,879	13,757	15,545	15,591	14,881
Public	--	--	--	--	--
Plant, machinery, and					
equipment	26,161	26,641	28,233	33,174	40,795
Private	25,505	25,888	27,572	32,300	40,011
Public	656	753	661	874	784
Transport equipment	3,190	3,812	3,915	4,758	6,330
Private	2,913	3,453	3,824	4,603	6,100
Public	277	359	91	155	230
Machinery, other plant,					
and equipment	22,971	22,829	24,318	28,416	34,465
Private	22,592	22,435	23,748	27,697	33,911
Public	379	394	570	719	554
	(Percentage change)				
Memorandum items:					
Total gross domestic fixed					
capital formation	7.4	2.9	8.0	9.0	9.9
Private	8.3	1.6	8.7	10.6	10.6
Public	0.4	13.3	3.1	-2.6	4.0
Private investment in					
residential construction	10.3	-2.8	14.2	-2.3	-1.2
Private investment in plant,					
machinery, and equipment	14.9	1.5	6.5	17.1	23.9

Source: Census and Statistics Department, Hong Kong Annual Digest of Statistics.

	1988	1989	1990	1991	1992	1993 Q I	1993 Q II	1993 Q III
(In thousands)								
Labor force 1/	2,763	2,753	2,748	2,799	2,793	2,844	2,848	2,870
Employed	2,725	2,723	2,711	2,749	2,738	2,783	2,790	2,816
Unemployed	38	30	37	50	55	61	58	54
(In percent)								
Unemployment rate 2/	1.4	1.1	1.3	1.8	2.0	2.2	2.0	1.9
Labor force participation rate	64.7	63.7	63.2	63.4	62.3	62.6	62.1	62.4
(In percent of total employed)								
Employment in selected sectors 2/								
Manufacturing	31	29	26	23	21	19	19	...
Finance, insurance, and business services	9	9	10	11	12	11	12	...
Wholesale and retail trade 3/	26	28	31	32	33	33	33	...
Building and construction	3	3	3	2	2	2	2	...
Community, social, and personal services	8	9	9	10	10	...	...	...
Transport, storage, and communication	4	5	5	5	5	...	...	...
Civil service	7	7	7	7	7	7	7	...

Source: Census and Statistics Department, Hong Kong Monthly Digest of Statistics.

1/ Period average.
2/ End of period, except for civil service. Data for civil service are as of January 1 of each year.
3/ Wholesale, retail, import and export trades, restaurants, and hotels.

Table 6. Hong Kong: Indicators of Labor Productivity, Wages,
and Unit Labor Costs, 1988-93 1/

(Percentage change)

	1988	1989	1990	1991	1992	1993 March 2/
Labor productivity						
Overall economy 3/	7.6	4.3	3.6	2.9	5.3	2.7
Manufacturing sector 3/	12.0	8.3	7.5	12.4	14.3	16.6
Nominal wages						
Overall economy	10.0	13.0	12.7	11.1	9.8	11.2
Manufacturing sector	8.7	11.5	12.2	11.0	9.5	11.3
Wholesale and retail trade	12.5	14.3	11.1	9.9	9.6	8.1
Business services	15.1	19.5	16.6	12.6	11.0	12.1
Real wages						
Overall economy	2.0	2.9	2.5	-1.0	0.1	3.1
Unit labor costs						
Overall economy	2.2	8.3	8.7	7.9	4.3	8.3
Manufacturing sector						
Wage-based 3/	-3.1	2.9	4.5	-1.1	-4.3	-4.5
Payroll-based 3/	0.3	8.0	5.6	-0.8	-1.4	-0.8

Sources: Data provided by the Hong Kong authorities; and staff estimates.

1/ Calculated using averages of semiannual data.
2/ Percentage change over previous 12 months.
3/ Based on employment; data on person-hours are unavailable.

Table 7. Hong Kong: Consolidated Government Account, 1988/89-1993/94 1/

	1988/89	1989/90	1990/91	1991/92	1992/93 Budget	1992/93 Actual	1993/94 Budget	1993/94 Staff Proj.
					(In millions of Hong Kong dollars)			
General revenue account								
Revenue	65,781	74,365	82,674	101,456	113,570	120,781	134,006	...
Expenditure	42,643	51,962	62,627	72,851	84,600	86,487	99,304	...
Current	41,260	49,077	60,378	70,773	81,940	81,593	94,286	...
Capital	1,383	2,885	2,249	2,078	2,660	4,894	5,018	...
Surplus before transfers	23,138	22,403	20,047	28,605	28,970	34,294	34,702	...
Transfers to funds	6,310	17,700	20,210	20,550	18,790	15,538	24,450	...
Balance after transfers	16,828	4,703	-163	8,055	10,180	18,756	10,252	...
Consolidated account funds 2/								
Revenue 3/	6,877	8,064	6,849	12,144	12,760	12,011	16,029	..
Capital expenditure	11,153	19,404	22,929	19,340	36,580	26,845	52,890	...
Deficit before transfers	-4,276	-11,340	-16,080	-7,196	-23,820	-14,834	-36,861	...
Transfers from general revenue account	6,310	17,700	20,210	20,550	18,790	15,538	24,450	...
Balance after transfers	2,034	6,360	4,130	13,354	-5,030	704	-12,411	...
Total consolidated account								
Revenue	72,658	82,429	89,523	113,600	126,330	132,792	150,035	155,035
Expenditure	53,796	71,366	85,556	92,191	121,180	113,332	152,194	144,494
Current	41,260	49,077	60,378	70,773	81,940	81,593	94,286	94,286
Capital	12,536	22,289	25,178	21,418	39,240	31,739	57,908	50,268
Balance	18,862	11,063	3,967	21,409	5,150	19,460	-2,159	10,541
					(In percent of GDP)			
Total consolidated account								
Revenue	16.8	16.5	16.0	17.7	17.5	17.8	17.7	18.0
Expenditure	12.4	14.3	15.3	14.3	16.8	15.2	18.0	16.8
Current	9.5	9.8	10.8	11.0	11.4	10.9	11.1	11.0
Capital	2.9	4.5	4.5	3.3	5.4	4.2	6.8	5.9
Balance	4.3	2.2	0.7	3.3	0.7	2.6	-0.3	1.2
					(Percentage change)			
Total consolidated account								
Revenue	19.4	13.4	8.6	26.9	11.2	16.9	13.0	16.8
Expenditure	11.2	32.7	19.9	7.8	31.4	22.9	34.3	27.5
Current	15.5	18.9	23.0	17.2	15.8	15.3	15.6	15.6
Capital	-0.9	77.8	13.0	-14.9	83.2	48.2	82.5	58.2
					(In millions of Hong Kong dollars)			
Memorandum item:								
Borrowing 4/	...	...	...	1,098	2,400	2,519	-1,200	-1,200

Sources: Data provided by the Government Secretariat, Finance Branch; and staff projections.

1/ The fiscal year runs from April 1 to March 31.

2/ Consists of the Capital Works Reserve Fund, Development Loan Fund, Mass Transit Fund, and Student Loan Fund prior to 1990/91; Capital Works Reserve Fund, Capital Investment Fund, and Loan Fund beginning 1990/91.

3/ Excluding borrowing (government definition includes revenue from the sale of bonds in Consolidated Account Funds).

4/ The Government Bond Program was launched in November 1991 in an effort to develop a market in fixed-income securities and facilitate the funding of long-term government infrastructural projects. The bonds are issued before the Government actually requires the funds. The size of the Program is limited to HK$5 billion of gross debt outstanding as of June 30, 1997.

Table 8. Hong Kong: Revenue (General Revenue Account), 1988/89-1993/94 1/

(In millions of Hong Kong dollars)

	1988/89	1989/90	1990/91	1991/92	1992/93 Budget	1992/93 Actual	1993/94 Budget
Taxes	48,811	54,577	61,914	78,922	87,692	96,813	104,096
Direct taxes	30,109	34,039	36,997	45,553	53,310	56,086	63,940
Earnings and profits tax	29,662	33,549	36,341	44,870	52,630	55,061	63,140
Estate duty	447	490	656	683	680	1,025	800
Indirect taxes	18,702	20,539	24,917	33,369	34,382	40,727	40,156
Duties	4,173	4,628	5,729	6,844	6,866	7,216	7,739
General rates	1,517	1,663	3,039	3,494	5,290	4,423	4,495
Internal revenue	10,423	11,559	13,143	18,406	17,984	23,012	21,961
Bets and sweeps tax	4,076	4,830	5,884	7,110	8,741	7,818	10,372
Entertainment tax	132	129	136	141	10	15	...
Hotel accommodation tax	242	271	269	266	285	314	335
Stamp duties	5,095	5,464	5,939	9,569	7,540	13,409	9,670
Air passengers' departure tax	683	669	718	1,120	1,200	1,255	1,384
Cross Harbor Tunnel passage tax	195	196	197	200	199	201	200
Motor vehicles taxes	1,922	1,735	2,054	3,437	2,957	4,940	4,222
Royalties and concessions	598	746	816	886	1,033	1,136	1,383
Taxi concessions	69	208	136	302	252	--	356
Nontax revenue	16,970	19,787	20,761	22,535	25,870	23,968	29,910
Fines and penalties	495	578	652	886	791	892	942
Properties, investments, and interest	4,971	7,279	5,846	4,554	6,141	3,588	7,686
Of which: Interest	2,818	4,942	4,505	2,982	4,420	1,767	2,970
Reimbursements and contributions	1,765	1,705	2,413	2,863	3,679	4,032	4,077
Utilities	4,094	4,857	5,617	6,650	7,244	7,174	7,892
Fees and charges	4,682	5,132	5,992	7,170	7,767	8,015	9,077
Land transactions 2/	365	212	241	412	248	267	236
Other	598	24	--	--	--	--	--
Total revenue	65,781	74,365	82,675	101,457	113,562	120,781	134,006

Source: Data provided by the Government Secretariat, Finance Branch.

1/ The fiscal year runs from April 1 to March 31.

2/ Includes only land transactions completed before the coming into force of the Sino-British Joint Declaration (5/27/85), or land transactions conferring a benefit that expires before June 30, 1997. Revenue from other land transactions is credited to the Suspense Account of the Capital Works Reserve Fund.

Table 9. Hong Kong: Government Expenditure Under the
General Revenue Account, 1988/89-1993/94 1/,2/

(In millions of Hong Kong dollars)

	1988/89	1989/90	1990/91	1991/92	1992/93 Budget	1992/93 Actual	1993/94 Budget
Current expenditure	41,260	49,077	60,378	70,773	81,935	81,593	94,286
Personal emoluments	15,828	18,855	23,443	25,286	25,785	25,852	29,063
Personnel-related expenses	3,221	3,752	4,937	6,584	7,560	7,711	9,501
Departmental expenses	3,667	3,850	4,552	4,782	4,685	4,438	5,143
Other charges	6,632	8,402	9,712	10,939	11,710	11,770	13,092
Subventions	11,912	14, 218	17,734	23,182	32,195	31,822	37,487
Capital expenditure 3/	7,693	20,585	22,459	22,628	21,450	20,432	29,468
Plant, equipment, and works	406	643	776	758	810	641	650
Other nonrecurrent	775	2,029	1,091	904	1,365	3,431	3,788
Subventions	202	213	382	416	485	822	580
Transfers to funds	6,310	17,700	20,210	20,550	18,790	15,538	24,450
Capital Works Reserve Fund/Public Works	6,200	8,800	15,200	15,000	15,450	12,198	13,650
Development Loan Fund	--	8,900	--	--	--	--	--
Mass Transit Fund	100	--	--	--	--	--	--
Capital Investment Fund	--	--	4,100	3,900	3,340	3,340	10,500
Loan Fund	--	--	910	1,650	--	--	300
Other	10	--	--	--	--	--	--
Total expenditure	48,953	69,662	82,837	93,401	103,38:	102,025	123,754

Source: Data provided by the Government Secretariat, Finance Branch.

1/ The fiscal year runs from April 1 to March 31.
2/ Accounts of the funds established under the Public Finance Ordinance, and revenue and expenditure of the Urban
Council, Regional Council, and Housing Authority are not included.
3/ Includes capital expenditure financed directly from the General Revenue Account (GRA) and from transfers from the
GRA to Consolidated Account Funds.

(In millions of Hong Kong dollars)

	1986/87		1987/88		1988/89		1989/90	
	Recurrent	Capital	Recurrent	Capital	Recurrent	Capital	Recurrent	Capital
Economic	2,665	222	2,885	365	3,105	529	3,609	491
Security	6,288	765	6,823	477	8,259	1,187	10,187	1,129
Internal security	5,378	583	5,806	421	6,997	1,124	8,631	1,017
Immigration	387	27	456	12	583	12	761	35
Other	523	155	561	44	679	51	795	77
Social services	6,251	607	6,951	826	8,566	911	10,519	1,550
Social welfare	2,468	87	2,759	97	3,633	171	4,426	336
Health	3,783	520	4,192	729	4,933	740	6,093	1,214
Education	7,817	780	8,569	862	9,906	1,449	11,439	1,591
Environment	43	348	63	365	98	422	573	620
Community and external affairs	2,507	728	2,860	859	3,299	1,052	3,899	1,503
Recreation, culture, and amenities	2,053	708	2,329	832	2,665	1,017	3,077	1,445
District and community relations	254	15	312	13	428	11	540	10
Other	200	5	219	14	206	24	282	48
Infrastructure	2,666	4,156	2,997	4,564	3,088	5,666	4,097	9,823
Transportation	880	1,265	969	1,906	807	2,259	906	3,296
Land and buildings	791	2,278	842	2,058	811	2,804	1,093	5,800
Water supply	995	613	1,186	600	1,470	603	2,098	727
Civil service support services	5,923	586	6,558	796	7,064	533	7,985	1,361
Housing	1,785	3,794	2,254	4,562	3,035	6,720	3,710	7,859
Total public expenditure	35,945	11,986	39,960	13,676	46,420	18,469	56,018	25,927

Table 10. Hong Kong: Public Expenditure by Function, 1986/87-1993/94 1/ (concluded)

(In millions of Hong Kong dollars)

	1990/91		1991/92		1992/93		1993/94 Budget	
	Recurrent	Capital	Recurrent	Capital	Recurrent	Capital	Recurrent	Capital
Economic	4,178	1,073	4,797	1,071	5,428	2,111	5,995	2,459
Security	12,105	1,458	13,186	1,392	14,854	1,113	16,345	1,789
Internal security	10,203	1,295	10,995	1,289	12,441	1,083	13,678	1,705
Immigration	935	80	1,051	82	1,160	41	1,283	61
Other	967	83	1,140	21	1,253	34	1,384	32
Social services	13,084	2,014	15,981	1,686	20,077	1,578	23,786	2,920
Social welfare	5,360	451	6,606	307	7,676	281	9,003	523
Health	7,724	1,563	9,375	1,379	12,401	1,297	14,783	2,397
Education	14,464	1,610	16,235	2,661	18,759	2,739	22,221	3,144
Environment	672	1,353	752	1,925	787	2,339	1,288	2,759
Community and external affairs	4,828	1,760	5,337	1,374	5,890	1,106	6,989	2,330
Recreation, culture, and amenities	3,914	1,721	4,351	1,339	4,858	1,072	5,909	2,296
District and community relations	639	17	696	15	738	16	756	20
Other	275	22	290	20	294	18	324	14
Infrastructure	4,747	7,153	5,941	8,304	5,961	11,454	6,633	18,095
Transportation	1,118	3,320	1,262	2,485	1,377	4,514	1,527	8,062
Land and buildings	1,342	3,074	1,918	5,170	2,077	5,827	2,324	8,773
Water supply	2,287	759	2,761	649	2,507	1,113	2,782	1,260
Civil service support services	10,390	1,893	13,129	1,614	14,421	1,945	16,870	4,985
Housing	3,999	8,417	5,123	7,454	5,082	7,850	6,861	11,132
Total public expenditure	68,467	26,731	80,481	27,481	91,259	32,235	106,988	49,622

Source: Data provided by the Government Secretariat, Finance Branch.

1/ Public expenditure comprises expenditure by the Housing Authority, the Urban Council, the Regional Council, expenditure financed by the Government's statutory funds, and all expenditure charged to the General Revenue Account. Expenditure by institutions in the private or quasi-private sector is included to the extent of their subventions. The activities of government departments that are partly financed by charges raised on a commercial basis are also included (e.g., airport, waterworks). Excluded is expenditure by those organizations in which the Government has only an equity position, including statutory organizations such as the Mass Transit Railway Corporation and the Kowloon-Canton Railway Corporation. Similarly, debt repayments and equity payments are excluded, as they represent financing items.

Table 11. Hong Kong: Monetary Indicators, 1988-93 1/

	1988	1989	1990	1991	1992	1993 2/ Aug.	1993 2/ Sept.	1993 2/ Oct.
				(Percentage change)				
Annual rate of growth								
M1	8.5	6.8	13.3	19.5	21.1	23.9	5.9	-10.1
M2	21.8	19.9	22.4	13.3	10.7	14.2	11.2	7.9
M3	20.2	18.7	21.5	11.6	9.5	13.1	10.3	7.4
Hong Kong dollar 3/	18.9	15.0	14.8	15.6	13.7	17.2	15.3	8.4
Foreign currency 4/	21.4	22.2	27.4	8.4	6.0	9.3	5.7	6.4
Total credit	17.8	27.3	36.4	26.3	9.7	15.6	9.1	10.9
Hong Kong dollar	27.3	27.6	16.9	18.9	11.9	19.4	17.4	9.5
Foreign currency	12.6	27.2	48.5	30.0	8.7	13.9	5.6	11.6
Of which:								
Total loans	23.5	32.2	40.6	25.4	10.1	16.3	13.5	10.3
Hong Kong dollar	30.8	29.8	15.6	19.2	12.2	16.6	15.0	5.7
Foreign currency	18.8	33.9	58.3	28.6	9.0	16.1	12.8	12.9
				(Percent of total)				
Currency composition								
M1								
Hong Kong dollar 3/	89.2	89.8	85.4	87.0	89.7	88.9	88.6	91.6
Foreign currency 4/	10.8	10.2	14.6	13.0	10.3	11.1	11.4	8.4
M3								
Hong Kong dollar 3/	48.4	46.9	44.3	45.9	47.7	49.1	49.8	51.9
Foreign currency 4/	51.6	53.1	55.7	54.1	52.3	50.9	50.2	48.1
Velocity								
M2	0.53	0.50	0.46	0.47	0.49	...	...	...
M3	0.49	0.47	0.43	0.45	0.47	...	...	...
Memorandum items:								
GDP (HK$ billions)	433.7	499.2	559.6	643.4	747.4	...	...	...
Nominal growth in GDP (percent)	18.0	15.1	12.1	15.0	16.1	...	...	...

Sources: Government Secretariat, Monetary Affairs Branch; and Census and Statistics Department, Hong Kong Monthly Digest of Statistics.

1/ Monetary stocks at end of period; unadjusted for valuation changes in foreign-currency-denominated deposits.
2/ Year-on-year growth rate.
3/ Adjusted to include foreign currency swap deposits.
4/ Adjusted to exclude foreign currency swap deposits.

Table 12.   Hong Kong: Loans for Use in Hong Kong, 1988-93 1/

	1988	1989	1990	1991	1992	1993 Sept. 2/
			(Percentage change)			
Loans for use in Hong Kong	29.4	28.1	17.9	18.5	11.4	15.3
Of which: Manufacturing	30.8	18.6	6.6	10.6	16.9	23.5
Transport and equipment	19.3	59.0	10.9	24.3	13.3	16.7
Building, construction, and property development	49.0	63.6	12.3	16.3	13.1	27.5
Wholesale and retail trade	37.6	4.9	19.1	7.8	9.5	18.0
Miscellaneous	25.4	24.2	20.9	21.5	10.8	11.1
Of which: To purchase flats in the Home Ownership Scheme and Private Sector Participation Scheme	15.5	22.5	28.8	39.6	13.4	57.8
To purchase other residential property	33.6	28.6	32.8	34.9	13.5	14.7
To financial concerns	54.0	60.6	23.0	8.6	10.4	8.4
To stockbrokers	-15.4	6.6	-19.2	38.6	1.0	-36.7
Memorandum items: GDP (HK$ bn.)	433.7	499.2	559.6	643.4	747.4	...
Nominal growth in GDP (percent)	18.0	15.1	12.1	15.0	16.1	...

Sources: Government Secretariat, Monetary Affairs Branch; and Census and Statistics Department, Hong Kong Monthly Digest of Statistics.

1/   Based on outstanding loans at the end of the period.
2/   Year-on-year growth rates.

Table 13. Hong Kong: Exchange Fund Balance Sheet, 1987-92

(In millions of Hong Kong dollars; end of year)

	1987	1988	1989	1990	1991	1992
Assets						
Foreign currency	113,089	127,089	149,142	192,323	225,333	274,948
Hong Kong dollar	5,746	5,962	9,625	3,874	10,788	12,546
Total	118,835	133,051	158,777	196,197	236,121	287,494
Liabilities						
Certificates of indebtedness 1/	26,831	31,731	37,191	40,791	46,410	58,130
Transfers of fiscal reserves 2/	32,557	38,269	52,546	63,226	69,802	96,145
Coins in circulation	1,470	1,890	2,012	2,003	2,299	2,559
Exchange Fund bills	--	--	--	6,671	13,624	19,324
Other 3/	4,453	2,554	1,603	391	4,834	3,220
Balance of banking system 4/	--	860	978	480	500	1,480
Total	65,311	75,304	94,330	113,562	137,469	180,858
Accumulated earnings	53,524	57,747	64,447	82,635	98,652	106,636

Source: Data provided by the Hong Kong Monetary Authority.

1/ As backing for their bank note issues, the two note-issuing banks are required to hold non-interest-bearing certificates of indebtedness issued by the Exchange Fund. Since October 17, 1983 these certificates have been issued to or redeemed from the two banks against payment in U.S. dollars at a fixed rate of HK$7.80=US$1.00.

2/ Fiscal reserves that have been transferred from the General Revenue Account, Capital Investment Fund, Loan Fund, and Capital Works Reserve Fund to the Exchange Fund on an interest-bearing basis.

3/ Other liabilities comprise expenses accrued at the year's end, primarily interest due on fiscal reserve transfers, contingency reserves for bank rescue operations, and any other borrowings.

4/ In accordance with the Accounting Arrangements introduced in July 1988, the Hongkong and Shanghai Banking Corporation Ltd., as the Management Bank of the Clearing House of the Hong Kong Association of Banks, is required to maintain a Clearing Account with the Exchange Fund. The balance in the Account, which represents the level of liquidity in the interbank market, can only be altered by the Exchange Fund.

Table 14. Hong Kong: Interest Rate Differentials, 1989-93

	Interbank Rates 1/			Deposit Rates 2/			Lending Rates 3/,4/		
	HIBOR 5/	LIBOR 6/	Differential	Hong Kong dollars	U.S. dollars	Differential	HSBC's BLR	U.S. Prime Rate	Differential
1989									
January	9.7	9.3	0.4	6.5	9.2	-2.7	10.0	10.5	-0.5
February	10.6	10.3	0.4	6.8	9.5	-2.7	10.3	11.5	-1.2
March	11.3	10.3	1.0	7.6	10.1	-2.5	11.1	11.5	-0.4
April	10.9	9.9	1.1	8.0	9.9	-1.9	11.5	11.5	--
May	10.6	9.5	1.1	8.0	9.6	-1.6	11.5	11.5	--
June	10.1	9.3	0.8	7.8	9.2	-1.4	11.3	11.1	0.2
July	8.8	8.5	0.3	7.2	8.8	-1.7	10.7	11.0	-0.3
August	9.3	8.9	0.3	6.6	8.6	-2.0	10.1	10.5	-0.4
September	9.3	9.1	0.2	6.5	8.8	-2.3	10.0	10.5	-0.5
October	8.4	8.6	-0.3	6.5	8.6	-2.1	10.0	10.5	-0.5
November	8.3	8.4	-0.1	6.5	8.4	-1.9	10.0	10.5	-0.5
December	8.6	8.3	0.3	6.5	8.4	-1.9	10.0	10.5	-0.5
1990									
January	8.5	8.3	0.2	6.5	8.2	-1.7	10.0	10.1	-0.1
February	8.9	8.3	0.6	6.5	8.2	-1.7	10.0	10.0	--
March	9.2	8.4	0.8	6.7	8.4	-1.7	10.0	10.0	--
April	9.9	8.6	1.3	7.7	8.4	-0.7	11.0	10.0	1.0
May	9.5	8.3	1.2	7.8	8.3	-0.6	11.0	10.0	1.0
June	8.8	8.3	0.4	7.8	8.2	-0.4	11.0	10.0	1.0
July	8.6	7.9	0.7	7.8	8.1	-0.3	11.0	10.0	1.0
August	8.2	8.0	0.2	7.4	8.0	-0.6	10.7	10.0	0.7
September	8.6	8.3	0.3	7.3	8.1	-0.8	10.5	10.0	0.5
October	8.0	8.0	--	7.1	8.1	-1.0	10.3	10.0	-0.3
November	8.4	8.3	0.1	6.8	8.0	-1.3	10.0	10.0	--
December	7.9	7.5	0.4	6.8	7.8	-1.0	10.0	10.0	--
1991									
January	6.9	7.0	-0.1	6.7	7.2	-0.5	9.9	9.5	0.4
February	7.1	6.8	0.3	6.3	6.5	-0.3	9.5	9.0	0.5
March	7.1	6.3	0.8	6.3	6.4	-0.2	9.5	9.0	0.5
April	6.6	6.0	0.6	6.3	6.1	0.2	9.5	9.0	0.5
May	8.3	6.0	2.3	6.4	5.9	0.5	9.7	8.5	1.2
June	7.6	6.3	1.3	7.3	6.1	1.2	10.5	8.5	2.0
July	6.4	6.0	0.4	6.3	6.0	0.3	9.5	8.5	1.0
August	5.9	5.6	0.3	5.9	5.7	0.2	9.5	8.5	1.0
September	5.3	5.6	-0.3	5.5	5.5	--	9.3	8.2	1.1
October	5.2	5.2	--	5.3	5.3	--	9.0	8.0	1.0
November	4.4	4.9	-0.6	4.8	4.9	-0.1	8.6	7.6	1.0
December	4.0	4.2	-0.2	4.8	4.5	0.3	8.5	7.2	1.3
1992									
January	4.5	4.1	0.4	4.8	4.1	0.7	8.5	6.5	2.0
February	4.6	4.2	0.4	4.8	4.1	0.7	8.5	6.5	2.0
March	4.8	4.3	0.6	4.8	4.2	0.5	8.5	6.5	2.0
April	4.3	4.0	0.3	4.8	4.0	0.8	8.5	6.5	2.0
May	3.7	4.0	-0.3	4.1	3.8	0.3	7.8	6.5	1.3
June	3.8	3.8	-0.1	3.3	3.9	-0.6	7.0	6.5	0.5
July	3.3	3.4	-0.1	2.8	3.4	-0.6	6.6	6.0	0.6
August	3.2	3.4	-0.3	2.8	3.3	-0.5	6.5	6.0	0.5
September	3.0	3.2	-0.2	2.8	3.1	-0.4	6.5	6.0	0.5
October	3.8	3.5	0.3	2.8	3.3	-0.5	6.5	6.0	0.5
November	4.8	4.0	0.8	2.8	3.6	-0.9	6.5	6.0	0.5
December	4.2	3.4	0.8	2.8	3.5	-0.7	6.5	6.0	0.5
1993									
January	3.6	3.2	0.4	2.8	3.2	-0.4	6.5	6.0	0.5
February	3.3	3.1	0.2	2.8	3.1	-0.4	6.5	6.0	0.5
March	3.3	3.2	0.1	2.8	3.1	-0.4	6.5	6.0	0.5
April	3.1	3.1	--	2.8	3.1	-0.3	6.5	6.0	0.5
May	3.3	3.3	--	2.8	3.1	-0.4	6.5	6.0	0.5
June	3.9	3.3	0.6	2.8	3.2	-0.5	6.5	6.0	0.5
July	3.4	3.3	0.1	2.8	3.2	-0.4	6.5	6.0	0.5
August	3.4	3.2	0.2	2.8	3.1	-0.3	6.5	6.0	0.5
September	3.3	3.3	--	2.8	3.1	-0.3	6.5	6.0	0.5
October	3.3	3.4	-0.1	2.8	3.2	-0.4	6.5	6.0	0.5

Sources: Census and Statistics Department, Hong Kong Monthly Digest of Statistics; and IMF, International Financial Statistics.

1/ Three-month end-of-period rates.
2/ Three-month period average rates.
3/ Monthly period average.
4/ U.S. prime lending rates and Hong Kong and Shanghai Banking Corporation's quoted Best Lending Rates.
5/ Hong Kong interbank offered rate.
6/ London interbank offered rate.

Table 15. Hong Kong: Balance of Trade in Goods and Nonfactor Services, 1988-93 1/

	1988	1989	1990	1991	1992	1993 Jan.-June
			(In billions of Hong Kong dollars)			
Trade balance	-8.1	5.3	-5.3	-16.2	-33.5	-29.3
Exports of goods	493.1	570.5	639.9	765.9	925.0	479.0
Domestic exports of goods	217.7	224.1	225.9	231.0	234.1	103.2
Re-exports	275.4	346.4	414.0	534.8	690.8	375.8
Imports of goods	501.2	565.2	645.2	782.0	958.5	508.3
Of which: Retained imports	253.7	254.2	289.9	329.4	383.3	...
Net balance on nonfactor services	30.1	34.7	32.7	35.3	47.5	28.1
Exports of nonfactor services	85.5	98.0	108.6	121.5	143.5	75.6
of which: Transportation	37.6	43.2	49.8	57.9	...	...
Travel	33.9	37.6	40.0	40.6	49.8	...
Imports of nonfactor services	55.4	63.4	75.9	86.2	96.0	47.5
of which: Transportation	19.8	22.4	25.8	28.0	...	...
Travel	24.2	28.0	34.9	41.0	44.0	...
Net balance of trade on goods and nonfactor services	22.0	40.0	27.4	19.1	14.0	-1.2
			(In percent of GDP)			
Trade balance	-1.9	1.1	-1.0	-2.5	-4.5	-7.5
Total exports	113.7	114.3	114.5	119.0	123.8	122.0
Domestic exports of goods	50.2	44.9	40.4	35.9	31.3	26.3
Re-exports	63.5	69.4	74.1	83.1	92.4	95.7
Imports of goods	115.6	113.2	115.4	121.6	128.2	129.4
Of which: Retained imports	58.5	50.9	51.9	51.2	51.3	...
Net balance on nonfactor services	6.9	6.9	5.9	5.5	6.4	7.2
Exports of nonfactor services	19.7	19.6	19.4	18.9	19.2	19.3
Imports of nonfactor services	12.8	12.7	13.6	13.4	12.8	12.1
Net balance of trade on goods and nonfactor services	5.1	8.0	4.9	3.0	1.9	-0.3
			(Percentage change)			
Total exports	30.4	15.7	12.2	19.7	20.8	15.1 2/
Domestic exports of goods	11.5	3.0	0.8	2.3	1.3	-3.5 2/
Re-exports	50.7	25.8	19.5	29.2	29.2	21.5 2/
Imports of goods	31.9	12.8	14.2	21.2	22.6	14.4 2/
Of which: Retained imports	17.8	0.2	14.0	13.6	16.4	...
Exports of nonfactor services	20.7	14.7	10.7	11.9	18.1	15.1 2/
Imports of nonfactor services	20.1	14.3	19.7	13.7	11.4	7.4 2/

Source: Census and Statistics Department, Hong Kong Annual Digest of Statistics.

1/ National accounts basis.
2/ Percentage change over corresponding year-earlier period.

Table 16. Hong Kong: Exchange Rate Indices, 1989-93 1/,2/

	Real Effective Exchange Rate	Nominal Effective Exchange Rate	Exchange Rate
1989			
January	85.7	65.1	63.7
February	86.9	65.3	63.8
March	87.1	65.8	63.8
April	87.7	66.1	63.9
May	89.7	67.4	64.0
June	91.5	68.3	63.9
July	90.1	67.0	63.8
August	90.9	67.2	63.7
September	92.5	68.0	63.7
October	91.4	67.1	63.7
November	91.8	67.1	63.7
December	92.8	67.6	63.7
1990			
January	93.8	68.0	63.7
February	93.5	67.8	63.7
March	95.9	69.1	63.7
April	96.7	69.6	63.8
May	96.4	68.9	63.9
June	96.9	69.0	63.9
July	96.3	68.0	64.0
August	94.9	66.9	64.0
September	94.3	66.2	64.1
October	92.5	64.5	64.0
November	92.9	64.3	63.8
December	95.0	65.4	63.8
1991			
January	95.5	65.6	63.8
February	95.2	64.9	63.8
March	99.3	67.1	63.9
April	101.8	68.1	63.8
May	102.7	68.6	63.9
June	105.0	70.1	64.3
July	104.7	69.7	64.1
August	104.4	69.0	64.1
September	103.8	68.3	64.2
October	103.6	67.9	64.2
November	102.5	67.0	64.1
December	101.7	66.1	64.0
1992			
January	102.0	65.9	64.1
February	104.0	66.7	64.1
March	106.6	68.1	64.2
April	106.8	68.1	64.3
May	105.7	67.2	64.2
June	104.9	66.3	64.3
July	103.9	65.2	64.3
August	104.2	65.0	64.3
September	104.8	65.0	64.4
October	107.2	66.0	64.4
November	110.6	67.9	64.3
December	111.5	68.1	64.3
1993			
January	113.4	68.6	64.3
February	113.4	69.0	64.3
March	112.2	68.5	64.3
April	110.2	67.0	64.4
May	110.2	66.7	64.4
June	110.6	66.7	64.3
July	111.8	67.3	64.1
August	111.9	67.0	64.2
September	112.2	66.7	64.3
October	113.7	67.3	64.4

Source: IMF, Information Notice System.
1/ Base year, 1980=100.
2/ Increase indicates appreciation.

Table 17. Hong Kong: Imports, Re-Exports, and Retained Imports, 1982-92

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
	(In billions of Hong Kong dollars)										
Raw materials and semimanufactures 1/											
Imports	56.4	75.3	99.7	97.4	119.5	165.5	216.3	230.5	248.7	297.3	329.9
Re-exports	16.8	21.4	34.7	42.8	49.2	72.5	108.2	119.5	127.2	158.0	187.3
Retained imports	...	...	...	...	...	...	...	121.3	133.0	150.7	157.4
Consumer goods 1/											
Imports	38.6	46.7	58.4	66.7	85.2	120.0	164.4	201.5	247.7	304.7	394.5
Re-exports	18.1	22.8	30.6	38.5	49.5	77.4	117.0	166.1	219.3	289.0	376.8
Retained imports	...	...	...	...	...	...	...	55.4	69.2	77.5	104.0
Capital goods 1/											
Imports	19.9	22.5	32.8	36.3	39.5	56.9	77.2	84.4	94.6	120.5	167.8
Re-exports	5.9	7.6	13.4	18.5	16.3	24.2	37.8	46.6	53.5	71.1	108.1
Retained imports	...	...	...	...	...	...	...	43.9	48.8	59.5	76.1
Foodstuffs											
Imports	16.8	19.7	20.7	20.8	23.5	26.8	32.1	34.0	37.0	41.3	45.4
Re-exports	3.2	4.0	4.3	5.1	6.9	7.9	11.3	11.4	11.4	13.2	14.4
Retained imports	...	...	...	...	...	...	...	23.5	26.6	29.6	32.5
Fuels											
Imports	11.1	11.3	11.8	10.3	8.3	8.8	8.8	12.5	14.5	15.3	17.7
Re-exports	0.3	0.4	0.5	0.4	0.8	0.8	1.1	2.8	2.5	3.5	4.3
Retained imports	...	...	...	...	...	...	...	10.0	12.3	12.1	13.7
Total imports	142.9	175.4	223.4	231.4	276.0	377.9	498.8	562.8	642.5	779.0	955.3
Total re-exports	44.4	56.3	83.5	105.3	122.5	182.8	275.4	346.4	414.0	534.8	690.8
Total retained imports	103.4	125.3	149.1	137.7	166.9	215.3	253.7	254.2	289.9	329.4	383.3
	(In percent of GDP)										
Raw materials and semimanufactures 1/											
Imports	30.4	36.5	40.2	37.3	40.0	45.0	49.9	46.2	44.5	46.2	44.1
Re-exports	9.0	10.4	14.0	16.4	16.5	19.7	25.0	23.9	22.8	24.6	25.1
Retained imports	...	...	...	...	...	...	...	24.3	23.8	23.4	21.1
Consumer goods 1/											
Imports	20.8	22.6	23.6	25.5	28.5	32.6	37.9	40.4	44.3	47.4	52.8
Re-exports	9.7	11.1	12.3	14.7	16.6	21.1	27.0	33.3	39.2	44.9	50.4
Retained imports	...	...	...	...	...	...	...	11.1	12.4	12.0	13.9
Capital goods 1/											
Imports	10.7	10.9	13.2	13.9	13.2	15.5	17.8	16.9	16.9	18.7	22.5
Re-exports	3.2	3.7	5.4	7.1	5.5	6.6	8.7	9.3	9.6	11.1	14.5
Retained imports	...	...	...	...	...	...	...	8.8	8.7	9.2	10.2
Foodstuffs											
Imports	9.0	9.6	8.3	8.0	7.9	7.3	7.4	6.8	6.6	6.4	6.1
Re-exports	1.7	1.9	1.7	2.0	2.3	2.1	2.6	2.3	2.0	2.1	1.9
Retained imports	...	...	...	...	...	...	...	4.7	4.8	4.6	4.3
Fuels											
Imports	6.0	5.5	4.8	3.9	2.8	2.4	2.0	2.5	2.6	2.4	2.4
Re-exports	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.6	0.4	0.5	0.6
Retained imports	...	...	...	...	...	...	...	2.0	2.2	1.9	1.8
Total imports	76.9	85.1	90.1	88.6	92.5	102.8	115.0	112.7	115.0	121.1	127.8
Total re-exports	23.9	27.3	33.7	40.3	41.0	49.7	63.5	69.4	74.1	83.1	92.4
Total retained imports	55.7	60.8	60.1	52.7	55.9	58.6	58.5	50.9	51.9	51.2	51.3

Sources: Census and Statistics Department, Trade Analysis Section; and staff estimates.

1/ As there was a reclassification of commodities in 1986, figures for 1985 (but not for 1982-84) have been revised according to the new classification to permit comparison with those for 1986.

Table 18.   Hong Kong: Trade Indices, 1988-93 1/

	1988	1989	1990	1991	1992	1993 Jan.-Sept. 2/
			(Percentage change)			
Total exports						
Value	30.5	15.7	12.1	19.7	20.8	14.8
Unit value	3.1	5.1	2.7	2.6	0.9	-0.3
Quantity	27.3	10.7	9.5	17.2	19.8	15.1
Domestic exports						
Value	11.6	2.9	0.8	2.3	1.4	-3.9
Unit value	2.2	2.8	1.3	1.9	1.0	0.3
Quantity	9.0	0.1	-0.5	0.4	0.4	-4.2
Re-exports						
Value	50.8	25.9	19.5	29.2	29.2	21.2
Unit value	3.4	6.1	3.0	2.2	0.8	-0.5
Quantity	45.7	18.6	16.0	26.4	28.2	21.8
Imports						
Value	32.0	12.9	14.2	21.2	22.7	14.6
Unit value	4.2	3.6	2.5	1.9	0.2	-0.7
Quantity	26.8	8.9	11.5	19.0	22.4	15.3
Terms of trade	-1.0	1.3	0.3	0.7	0.7	0.4

   Sources: Census and Statistics Department, Hong Kong Monthly Digest of Statistics; and staff estimates.

1/   Base year 1990.
2/   Percentage change from corresponding year-earlier periods.

Table 19. Hong Kong: Structure of Trade with China, 1982-92

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
					(In billions of Hong Kong dollars)						
Trade with China											
Balance	-21.3	-24.4	-16.2	3.2	-21.1	-27.2	-18.5	-43.8	-71.6	-77.6	-68.0
Total exports	11.8	18.4	39.3	61.2	58.9	88.0	132.9	146.8	158.4	207.7	274.1
Domestic exports	3.8	6.2	11.3	15.2	18.0	27.9	38.0	43.3	47.5	54.4	62.0
Re-exports (to China)	8.0	12.2	28.1	46.0	40.9	60.2	94.9	103.5	110.9	153.3	212.1
Total imports	33.1	42.8	55.5	58.0	80.0	115.2	151.5	190.6	230.0	285.3	342.0
Of which: Re-exports (from China)	14.7	19.7	28.1	34.6	51.6	84.3	131.5	188.3	240.4	315.7	403.8
					(Percent of GDP)						
Trade with China											
Balance	-11.5	-11.8	-6.5	1.2	-7.1	-7.4	-4.3	-8.8	-12.8	-12.1	-9.1
Total exports	6.4	8.9	15.8	23.4	19.7	23.9	30.6	29.4	28.3	32.3	36.7
Domestic exports	2.0	3.0	4.6	5.8	6.0	7.6	8.8	8.7	8.5	8.5	8.3
Re-exports (to China)	4.3	5.9	11.3	17.6	13.7	16.4	21.9	20.7	19.8	23.8	28.4
Total imports	17.8	20.8	22.4	22.2	26.8	31.3	34.9	38.2	41.1	44.3	45.8
Of which: Re-exports (from China)	7.9	9.6	11.3	13.3	17.3	22.9	30.3	37.7	43.0	49.0	54.0

Sources: Census and Statistics Department, Trade Analysis Section; and staff estimates.

Table 20. Hong Kong: Direction of Trade by Area and Major Partners, 1988-93

(Percent of total)

	1988	1989	1990	1991	1992	1993 Jan.-Oct.
Imports	100.0	100.0	100.0	100.0	100.0	100.0
North America	8.8	8.7	8.5	8.0	7.8	7.9
Of which:						
United States	8.3	8.2	8.1	7.6	7.4	7.4
Western Europe	13.1	12.5	12.3	11.2	11.4	11.4
Asia	73.4	74.5	75.7	77.5	77.4	77.2
Of which:						
China	31.2	34.9	36.8	37.7	37.1	37.3
Japan	18.6	16.6	16.1	16.4	17.4	16.9
Taiwan Province of China	8.9	9.2	9.0	9.6	9.1	8.8
Korea	5.3	4.5	4.4	4.5	4.6	4.5
Other	4.7	4.3	3.5	3.3	3.4	3.5
Domestic exports	100.0	100.0	100.0	100.0	100.0	100.0
North America	36.2	35.0	31.8	29.4	29.7	28.8
Of which:						
United States	33.5	32.2	29.4	27.2	27.6	26.7
Western Europe	25.8	23.8	24.3	24.3	21.0	18.7
Of which:						
Germany 1/	7.5	7.0	8.0	8.4	6.8	6.2
United Kingdom	7.1	6.5	6.0	5.9	5.4	4.8
Asia	31.1	34.9	37.9	40.6	44.2	47.3
Of which:						
China	17.5	19.3	21.0	23.5	26.5	28.6
Japan	5.3	5.8	5.3	5.0	4.7	4.4
Other	6.9	6.3	6.0	5.7	5.1	5.2
Re-exports (destination) 2/	100.0	100.0	100.0	100.0	100.0	100.0
China	34.5	29.9	26.8	28.7	30.7	33.4
United States	18.0	20.8	21.2	20.7	21.5	22.0
Germany 1/	3.3	3.9	5.7	6.0	4.8	4.8
Japan	6.3	6.4	5.9	5.5	5.4	5.2
Taiwan Province of China	5.1	4.8	5.1	4.6	3.8	2.7
United Kingdom	2.3	2.6	2.9	2.7	3.0	2.9
Korea	4.3	3.8	3.1	2.7	2.0	1.9
Other	26.2	27.8	29.3	29.1	28.8	27.1
Memorandum items:						
Re-exports (origin) 2/	100.0	100.0	100.0	100.0	100.0	100.0
China	47.8	54.3	58.1	59.0	58.4	57.3
Japan	13.7	11.3	10.2	10.7	12.3	13.6
Taiwan Province of China	7.7	7.8	7.3	7.8	7.9	7.9
United States	7.0	6.4	5.9	5.0	4.6	4.5
Korea	4.7	3.3	2.8	2.8	2.8	2.6
Germany 1/	1.6	1.4	1.3	1.3	1.3	1.8
United Kingdom	1.2	1.1	1.1	1.1	1.1	1.0
Other	16.3	14.4	13.3	12.3	11.6	11.3

Sources: Census and Statistics Department, Hong Kong Monthly Digest of Statistics; and staff estimates.

1/ Data prior to October 1990 have been adjusted to include trade figures from the former German Democratic Republic, so as to ensure comparability of these trade figures with those after German unification.
2/ Data for 1993 are for the January-September period.