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Economic Dynamism of Asia in the New Millenium

From the Asian Crisis to a New Stage of Growth

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CONTENTS

CHAPTER 2

THE ASIAN FINANCIAL CRISIS, DEFLATION, AND STRUCTURAL CHANGE IN HONG KONG

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The Asian Financial Crisis presents a rare opportunity to study deflation in Hong Kong. Cumulative deflation as measured by the consumer price index fell by 15 per cent from 1998 to 2004. This article studies the interplay of two factors that played an important interacting role in determining the onset, persistence, and eventual ending of deflation in Hong Kong after 1997. These two main factors are (1) a sharp and protracted downturn of the business cycle, and (2) structural change of the Hong Kong economy in response to the opening of China and the process of gradual economic integration. We develop a theoretical framework for interpreting the post-1997 deflation that occurred after the onset of the Asian Financial Crisis and the subsequent global economic slowdown. We show that the same framework can also be applied to the understanding of the inflationary period before 1997 and the economic recovery in 2003 that led to the ending of deflation in Hong Kong. We cite evidence to show that deflation in Hong Kong can be explained primarily by factors associated with regional and global economic cycles and their effects on the economy; and that deflation would end in 2003. The persistence in deflation should not be interpreted as a result of structural transformation of the Hong Kong economy resulting from closer integration with Mainland China. The price convergence process resulting from the economic integration with the Mainland will continue for a considerable period of time. It will, however, exert only

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a minor dampening effect on the average price level in Hong Kong given its slow moving process.

1. The Changing Structure of the Economy

The Hong Kong economy has demonstrated a remarkable capacity to adapt to external change during the past 60 years. At each stage of its economic evolution, Hong Kong has risen to the challenges of changing global conditions and succeeded in making the economy work. The economy evolved from being an entrepot trading centre for China during the immediate post-war period into an export oriented light manufacturing industrial city during the 1950s and 1960s. In the 1970s, the Hong Kong financial sector started as a local commercial banking community only to emerge as one of the largest financial centres in the world. In addition, during the 1970s Hong Kong became a leading tourist destination in the Asia-Pacific region. In the 1980s, with the advent of China's open door policy, Hong Kong has re-emerged as the premier entrepot trading centre serving not only China but the entire Asia Pacific region.

Since the mid-1980s, the Hong Kong economy has begun evolving in an entirely new way because of new economic links with China and the Asia-Pacific region. By the mid-1990s, the shift of Hong Kong manufacturing investment out of Hong Kong, particularly to the Pearl River Delta area in Guangdong Province of China, has been largely completed. The most remarkable change is that as a functional economic entity, Hong Kong now extends well into the entire Asia-Pacific region and most prominently South China. With the extensive investment made by Hong Kong manufacturers and other entrepreneurs in South China, the economy of Hong Kong is no longer simply an internationally connected city economy. It is a metropolitan economy integrating with a vast Chinese hinterland and linked to the global economy.

The changing structure of Hong Kong's economy is reflected in the shifting shares of the manufacturing sector relative to services in total GDP. The share of manufacturing in total GDP declined from about 20 per cent in the mid-1980s to about 3.4 per cent in 2004. At its height in

1970, manufacturing had accounted for 31 per cent of Hong Kong's GDP.

The rapid growth of the service sector is evidence of the continual expansion of Hong Kong as a major financial centre in the Asia-Pacific region. It is also evidence of the re-emergence of Hong Kong as an entrepot for China trade and as a service centre for export orientated production in South China's vast hinterland. Hong Kong's service sector grew from about 70 percent of GDP in the mid-1980s to nearly 86 per cent in 2004. In a previous study, Tao and Wong (2002) showed that the growth of the service sector is almost entirely accounted for by producer services (or intermediate services) instead of final consumer services.

The growth of producer services in Hong Kong reflects the growing integration of Hong Kong's economy with the rest of the region and especially the Chinese hinterland. These producer services support primarily the manufacturing production base that has migrated offshore. The process has taken place to a much greater extent in Hong Kong than Singapore. Tao and Wong (2002) had estimated that Hong Kong's producer services sector had expanded from 40.6 per cent to 50 per cent of GDP from 1987 to 1997. The figures for Singapore had remained unchanged at about 40 per cent.

The change is also reflected in the different structure of exports in the two economies. The proportion of re-exports in total exports had risen from 60 per cent to 77 per cent from 1987 to 1997 in Hong Kong. In Singapore, the proportion of re-exports in total exports had remained unchanged at about 40 per cent over the same period.

The openness of Hong Kong in trade has always been well known, but until recent years little is known of the Hong Kong's external assets and the amount of foreign investments and funds that have been attracted to Hong Kong. The Census and Statistics Department estimated Hong Kong's international investment position, external debt and portfolio investment statistics for the first time in 2002. Current estimates show that Hong Kong's external assets amounted to US$1,373.6 billion (829 per cent of GDP) as at end-2004. Foreign investments and funds attracted to Hong Kong amounted to US$949.7 billion (573 per cent of GDP). The net external assets amounting to US$423.9 billion (256 per cent of GDP) is among the largest in the world.

Hong Kong today is China's foremost partner in commodity trade, tourist trade, direct foreign investment, and loan syndication. Besides trade and investment, Hong Kong facilitates China's open door policy in many indirect ways. Hong Kong serves as a contact point, a conduit of information and technology transfer, a marketing and management training ground, and last but not least its centre for international financial capital. For the year ended 2005, investment public offering (IPO) activity on the Hong Kong Exchange amounted to a total of US$21.24 billion making it the second largest stock exchange in the world after New York in terms of IPO activity for the year. The lion's share of the IPO activity is China-related.

By allowing market forces to drive its economy, Hong Kong is assuming characteristics similar to that of other metropolitan economies like New York. Table 1 below shows that both Hong Kong and New York have a preponderance of producer services. The growing importance of producer services in Hong Kong and New York reflects an economic process at work that is crowding out lower value added activities, such as the physical production stages of manufacturing, to the hinterland. Over time, manufacturing gradually plays a less important role in the city's GDP and employment, even though it continues to function as the management and coordination center for a manufacturing base that has been decentralized to other places. This new dimension of the Hong Kong economy represents both opportunities and difficult challenges for Hong Kong in the next evolutionary phase of its economy.

Table 1: Percentage Contribution to GDP in 1993

	All Services	Consumption Services	Producer Services	Government Services
Hong Kong	78.1	28.7	42.8	6.6
New York City	77.8	26.1	40.8	10.8

Sources: Figures of Hong Kong are based on estimated by Wong (1996). Figures for New York City are taken from Drennan (1998).

2. The Asian Financial Crisis and Economic Recession

As a metropolitan economy, Hong Kong is subject to the same economic dynamics faced by other cities like New York, London and Tokyo. It is economically less vulnerable to the rise and demise of any specific economic sector, but is sensitive to a general macroeconomic contraction such as the one that took place in East Asia following the Asian Financial Crisis in 1997.

The Asian region was hit by two successive negative macroeconomic demand shocks: the Asian Financial Crisis in 1997 and the global economic slowdown in 2001. The regional and global economic environment led to a general macroeconomic downturn in Hong Kong. Given the linked exchange rate system in Hong Kong, where the local currency is unified with the US Dollar through a currency board arrangement, cyclical deflationary pressure appeared.

For this reason, the economic downturn in Hong Kong in the 5 years following the onset of the Asian Financial Crisis was particularly severe. Wong (2002) predicted that the Hong Kong economy was unlikely to rebound until the rest of East Asia starts moving again. For this reason, Hong Kong was therefore less likely to repeat its previous records of rapid export-led manufacturing based recovery on this occasion. Singapore's somewhat greater presence of export oriented manufactured products may therefore recovery before Hong Kong did.

The general price level in Hong Kong started to fall in October of 1998. Since then the price level has fallen by a cumulative of 15 percent, bringing the average consumer prices back to their 1995 level. Deflation had persisted for more than 5 years. Since June 2004, the onset of rising import prices and improving domestic demand has started to reverse the downward pressure on consumer prices.

A major part of the deflationary episode can be accounted for by the bursting of the property bubble triggered by the contagion effects of the Asian Financial Crisis. About half of the drop in the CPI can be accounted for by the housing component. Property prices had dropped by more than 66 percent from their peak in 1997 to September 2003, and rental by about 49 percent (see also IMF 2002). The bursting of the property price bubble following the onset of the Asian Financial Crisis is an important cause of cyclical deflation. The damaged balance sheets of many households contributed to the persistence of the deflation cycle through a negative effect on consumption.

One third of the drop in the CPI can be accounted for by three other components of the CPI, namely food, clothing and footwear, and durable goods (see IMF 2002). The drop in import prices had also been a contributing factor in the fall of consumer prices. Between 1997 and 2001, import prices declined by 12 per cent, reflecting a 10 per cent appreciation of the nominal effective exchange rate index.

Hong Kong is not alone in suffering from deflation. China, Taiwan, Singapore and Japan also faced falling prices. Inflation in Asia, excluding Japan, dropped from close to 20 per cent in 1994 to around 2.5 per cent in 2001 (see Fung, Ma and McCauley 2002).

The persistent drop in consumer prices is unprecedented in the postwar history of Hong Kong. The concomitant asset price deflation induced by the two successive external negative shocks is the dominant factor responsible for the persistence in the drop of consumer prices. Between 1997 and 2000, net private housing equity dropped by more than 50 percent, and this factor alone can explain more than half of the decline in private consumption, according to a study (see Hong Kong Monetary Authority, May 2001). The cumulative drop in net private housing equity value between 1997 and 2003 amounted to 57%. Many households had to struggle with the problem of negative equity on their property. Property prices started to rebound in 2004.

The overall performance of the stock market has also had a negative effect. In particular the bursting of the internet asset bubble wiped out a considerable proportion of asset wealth of the local population and therefore further dampened the incentive to consume. The shrunken net worth worsened the credit-worthiness of firms, thus reducing banks' willingness to lend. The uncertain economic outlook had also hampered private investment spending. The balance sheets of the private sector had sharply deteriorated in the 5 years after 1997, and this required time to repair. The persistence of deflation had also led the general public to form deflationary expectations, thus further weakening the already depressed level of local consumer and investment spending. The negative outlook on prices implied higher expected real interest rates.

3. The Need for a Theoretical Framework

The interplay of two economic factors in Hong Kong had an important bearing on the nature of deflationary pressure and its persistence in Hong Kong after 1997. These two main factors were (1) a sharp and protracted downturn of the business cycle, and (2) structural change of the economy in response to the opening of China and its gradual integration with Hong Kong. What is the respective importance of cyclical versus structural factors in explaining deflation and its persistence in Hong Kong is of great interest in helping us understand when and how deflation will end. To resolve this question it is useful to develop a theoretical framework for interpreting the recent deflationary episode. To be scientifically meaningful such a framework must be capable of interpreting the inflationary decade that preceded the onset of the Asian Financial Crisis and the subsequent deflationary period in a consistent manner, as well as the economic recovery after 2003.

Our approach is to think of the Hong Kong economy as being composed of two sectors. One sector produces tradable goods (and services) and another sector produces non-tradable goods (and services). In the decade from the mid-1980s to the mid-1990s manufacturing operations were moved across the border and greatly expanded their scale of operation. Two effects took place in Hong Kong.

First, the manufacturing sector in Hong Kong experienced a huge increase in productivity relative to the rest of the economy, primarily the service sector. Since manufactured goods are predominantly tradable goods and many services are often non-tradable, one can usefully think of the Hong Kong economy as having experienced faster productivity growth in tradable goods relative to non-tradable services. Prices of non-tradable (P_N) services rose relative to tradable goods (P_T). Under the linked exchange rate (e), prices of tradable goods have to rise or fall in tandem with world prices; therefore, the domestic price level in Hong Kong (a combination of tradable goods and non-tradable services) began to rise faster than world prices. This is the cause and nature of structural inflation in Hong Kong. Structural inflation results from rising demand for non-tradable services that have to be domestically produced.

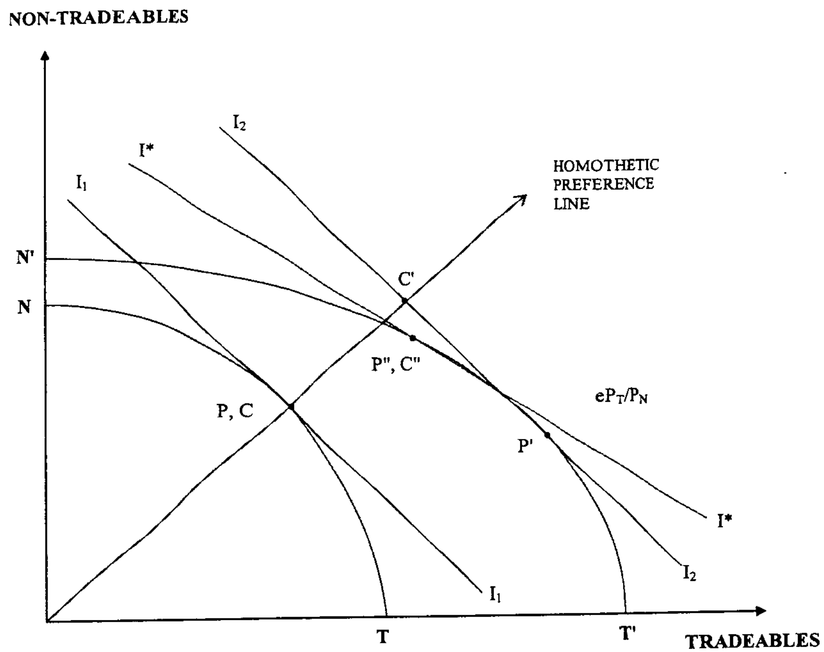


Figure 1.

The situation is depicted in Figure 1, where the point (PC) denotes the original production and consumption bundle before the production possibility frontier (NT) shifted to (N′T′). After the shift the new production and consumption bundle occurs at point (P″C″), where P_N/eP_T has risen.

Second, returns from assets invested across the border in south China resulted in a substantial rise in the incomes of Hong Kong residents above their domestically produced incomes. Part of the income arising from external sources had to be spent on non-tradable domestically produced services thereby further fuelling structural inflation.

The situation is depicted in Figure 2, the increase in income from net external assets leads to an increase in income from I_1I_1 to I_2I_2. This is equivalent to a shift in the production possibility frontier from (NT) to (NT*). The equilibrium production and consumption bundle shifts from point (P″C″) to (P*C*), and P_N/eP_T rises further. Structural inflation is therefore exacerbated.

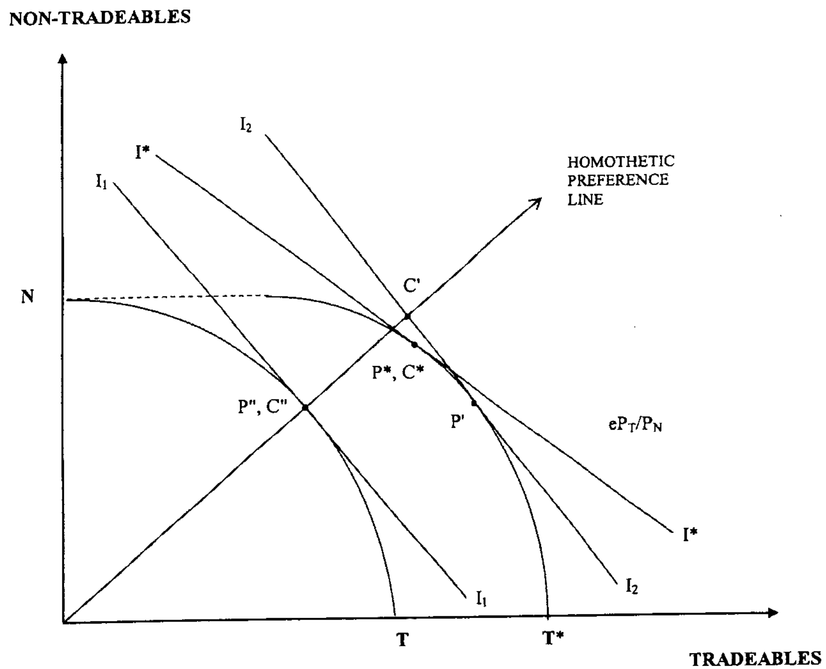
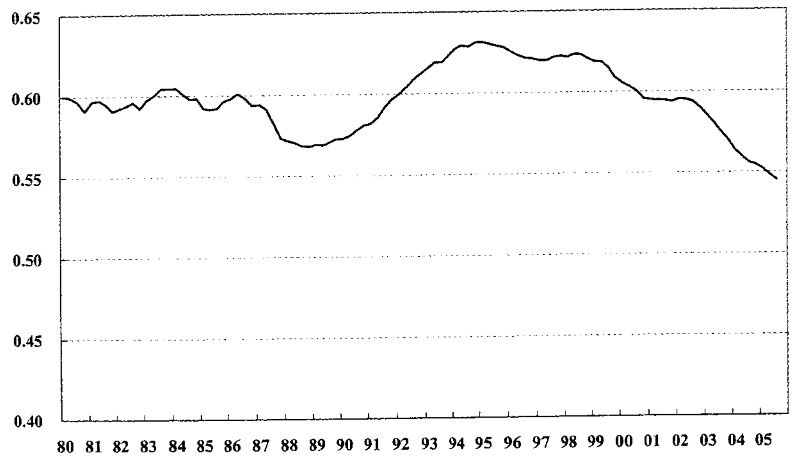


Figure 2.

Chart 1: Consumption to GDP Ratio
(2000 Prices, smoothed by 2-year moving average)



Source: Census and Statistics Department, HKSAR.

As a corollary consumption spending in Hong Kong would therefore rise faster than GDP during inflationary periods. This contradicts the conventional economic wisdom that consumption rises more slowly than GDP during an economic boom, because investment typically grows faster in a boom period compared with consumption. Chart 1 shows that in the decade from the late-1980s to the mid-1990s the ratio of consumption to GDP was indeed rising.

Since, residential property is generally regarded as a non-tradable service and should certainly be considered to be the case during this period. It is therefore logical to find property price inflation to happen during this period. No doubt and inevitably market speculation in properties further fuelled property price inflation.

By the mid-1990s the expansion of manufacturing activities across the border was slowing, consequently structural inflationary pressure was eased. With the onset of the Asian Financial Crisis in 1997 and the subsequent global economic slowdown in 2001, the returns from assets invested externally also fell. The interest rate, which is a good indicator of the declining returns from external incomes, started to fall after the Asian Financial Crisis and especially when the global economic slowdown emerged.

Recent estimates by the Census and Statistics Department (2005) of the net external assets of Hong Kong puts it at 132 per cent of GDP in 2000, 159 per cent of GDP in 2001, 210 per cent in 2002, 248 per cent of GDP in 2003, and 256 per cent of GDP in 2004 (see Table 2). Net external assets as a percentage of GDP has risen dramatically over a short 4-year period of time reflecting the growing international financial and investment linkages of Hong Kong in the world economy. It is interesting to consider the macroeconomic consequences of a decline in the interest rate by 3 per cent. This would imply a decline in income from net external assets equivalent to about 4.0 per cent of GDP in 2000, 4.8 per cent of GDP in 2001, 6.3 per cent of GDP in 2002, 7.4 per cent of GDP in 2003 and 7.7 per cent of GDP in 2004. These are huge declines in incomes and would obviously have a significant negative impact on domestic consumption of non-tradable services.

Table 2: International Investment Position, 2000-2004

Year-end	Assets		Liabilities		Net International Investment Position*	
	US$ bn	*% to GDP*	US$ bn	*% to GDP*	US$ bn	*% to GDP*
2000	1,142.1	*677%*	920.1	*545%*	222.0	*132%*
2001	1,070.8	*643%*	805.7	*484%*	265.2	*159%*
2002	1,030.0	*629%*	686.7	*419%*	343.3	*210%*
2003	1,182.1	*746%*	789.0	*498%*	393.1	*248%*
2004	1,373.6	*829%*	949.7	*573%*	423.9	*256%*

*Net international investment position is the difference between total external financial assets and total external financial liabilities.

Sources: Balance of Payments Statistics of Hong Kong, Third Quarter 2005, Census and Statistics Department, HKSAR

It is important to note that the deflationary pressure caused by the decline in income from net external assets is not a simple case of structural deflation. The decline in income from net external assets is fundamentally cyclical in nature and stems from the regional and global recession that started in 1997. The effect of this recession on Hong Kong is amplified by virtue of the very large net external assets of Hong Kong. This feature of the Hong Kong economy means that the effects of regional and global business cycles exacerbate the volatility of the economy.

The framework developed above can also be used to understand the implications of the so-called "Gortex Border" between Hong Kong and the Chinese Mainland on structural inflation. The term "Gortex Border" depicts the constitutional arrangement defining Hong Kong's relationship with the Chinese Mainland in "one country two systems", where Hong Kong residents are free to travel to the Mainland, while Mainland residents are severely prohibited from coming to Hong Kong.

As the south China economy continue to develop there is a growing incidence of Hong Kong residents crossing the border to purchase a variety of consumption goods and services that were previously consumed domestically as non-tradable goods (see report by the Business and Professionals Federation of Hong Kong, January 2002). This phenomenon can be interpreted as a two-fold change. First, the ease of crossing the border from Hong Kong into the Mainland had transformed some non-tradable goods into tradable goods through a "neighborhood proximity" effect. Second, this "neighborhood proximity" effect reduced the demand for non-tradable goods in Hong Kong and resulted in a decline in their prices thereby contributing to structural deflationary pressures.

The situation is depicted in Figure 3, where the income line shifts from I_1I_1 to I^*I^*. The production and consumption bundle changes from point (P″C″) to point (P) and point (C). The latter two points do not coincide and reflect the "odd" situation where it is possible to import non-tradable services for consumption.

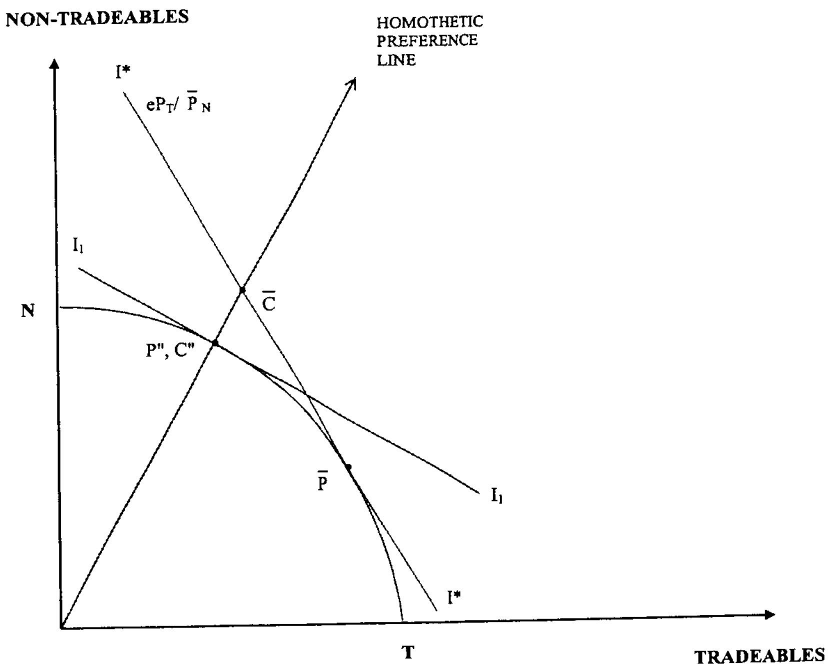


Figure 3.

This process of structural deflation will stop when it is no longer economically worthwhile to engage in cross border consumption of this kind. This happens partly because prices across the border will rise over time. The process will also slow down with productivity gains in non-tradable goods that will lower their prices.

Structural deflation of this sort may hurt the interests of those engaged in the production of non-tradable goods in Hong Kong, but they are positive for the economy as a whole because it allows the population to consume these goods at a lower price.

It is worth noting that the movement of production operations (both manufacturing and services) into China creates structural inflationary pressures that are opposite to the "neighborhood proximity" effect of crossing the border for consumption purchases. Economic integration and the resulting structural change create both deflationary and inflationary pressures. It is likely that prior to the mid-1990s inflationary pressures dominated, but in the post-1997 environment deflationary pressures dominated.

Enhancing the flow of Mainland visitors into Hong Kong for tourism, work or residence would increase the demand for non-tradable goods in Hong Kong and would generate pressures for structural inflation. If the flow is sufficiently large then it could well dominate the deflationary pressures arising from cross-border consumption activities.

The situation is now depicted in Figures 4a and 4b. In Figure 4a we show an outward shift in income line as reflected by an increase in demand arising from the influx of Mainland residents. In Figure 4b we show that the final equilibrium situation would occur at point (P) for production and at point (C) for consumption, prices of non-tradables have risen relative to tradables.

Starting from 28 July 2003, the Chinese Mainland authorities began to relax the restrictions for Mainland Chinese residents in selected provinces and cities to visit Hong Kong for tourist purposes. The progressive relaxation of individual travel permits to visit Hong Kong have had a positive effect on stimulating aggregate demand to support Hong Kong's economic recovery.

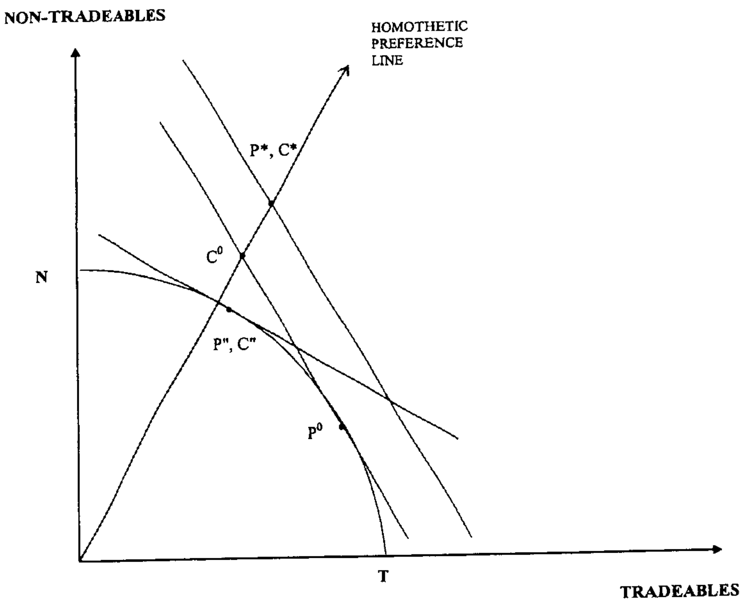


Figure 4a.

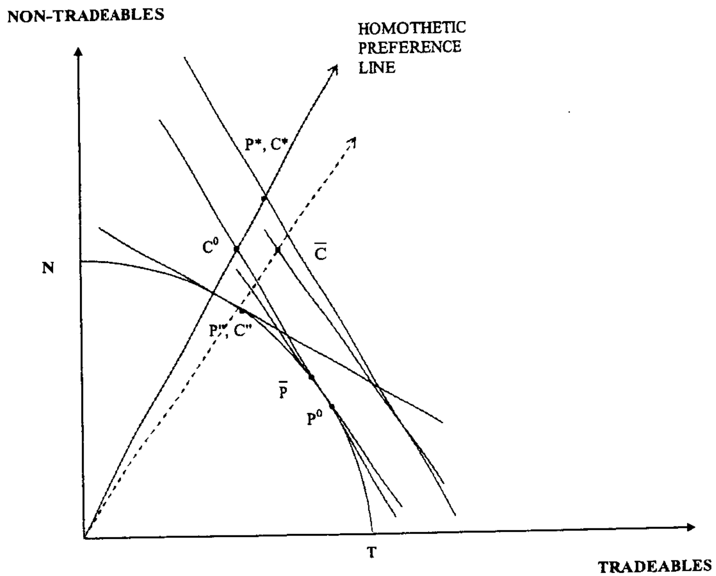


Figure 4b.

The integration of Hong Kong with China has made it more convenient for companies to move their operations across the border. This effect by itself leads to structural inflation as was witnessed in the decade before the Asian Financial Crisis. The property bubble had been fueled by rapid productivity growth in the tradable sector and exacerbated by speculative activities. However, when the structural change is combined with a severe regional and subsequently global recession it can also be deflationary as returns from overseas assets fall. Consumption and even investment can therefore be negatively impacted.

In addition, the gradual and continued opening of China has contributed to structural deflationary pressures in Hong Kong because it is now more convenient for households to consume across the border.

4. Price Changes: Cyclical versus Structural

The interplay of structural and cyclical factors had led to more extreme movements in price changes. An economic boom in the rest of the world fuels inflation in Hong Kong through a higher rate of inflation in imported prices, demand led inflation in the prices of non-tradables caused by rising incomes from external sources, and more rapid relocation of production facilities out of Hong Kong. The reverse occurs when economic recession occurs in the rest of the world. Such an adjustment process is reflected in key macroeconomic indicators over the two periods: 1985-97 and 1998-2005, and within their various sub-periods (see Table 3).

The first period 1985-97 experienced rapid economic expansion and inflation when production facilities were relocated away from Hong Kong. During this period prices of imports were also rising and the Hong Kong currency was strengthening relative to its trading partners as a whole given its link to the US Dollar. The real interest rate was extremely low as a result of rising domestic prices. Real consumption grew faster than real GDP as a whole during this period. The sub-period 1995-97 is interesting because it revealed a slowing down of the economy before the onset of the Asian Financial Crisis.

Table 3: Macroeconomic Indicators in 1985-2005

	1985-1997	**Sub-period**			**1998-2005**	**Sub-period**			
		1985-1989	1990-1994	1995-1997		1998	1999-2002	2003	2004-2005
Real GDP growth rate %	**5.9**	6.9	5.6	4.4	**3.6**	-5.5	4.0	3.1	7.8
Consumer price inflation rate %	**7.7**	5.4	9.7	7.0	**-1.5**	2.9	-3.1	-2.6	0.3
Import price inflation rate % (or unit value index)	**1.7**	3.3	1.3	0.4	**-1.0**	-4.9	-2.1	-0.3	2.8
Nominal Effective Exchange Rate Index (average annual % change)	**1.6**	-2.3	4.2	0.9	**-0.1**	5.5	0.0	-3.2	-1.7
Real Effective Exchange Rate Index (average annual % change)	**3.9**	1.0	5.5	3.5	**-2.9**	7.7	-3.9	-7.0	-3.7
Nominal Best Lending Interest Rate (%)	**8.3**	8.1	8.2	8.8	**7.1**	9.9	7.5	5.0	5.6
Real Best Lending Interest Rate (%)	**0.6**	2.7	-1.5	1.8	**8.6**	7.0	10.6	7.6	5.3
Share of re-exports in total exports	**0.67**	0.51	0.74	0.84	**0.90**	0.86	0.89	0.93	0.94
Ratio of trade balance to GDP using nominal values	**0.054**	0.101	0.058	-0.031	**0.066**	0.006	0.056	0.092	0.104
Real consumption growth rate %	**6.4**	5.7	7.7	3.9	**1.3**	-6.8	2.0	-1.1	5.3
Real export growth rate %	**14.0**	16.5	14.1	7.6	**7.6**	-4.3	6.3	14.2	13.3
Unemployment rate %	**2.1**	2.1	1.8	2.7	**6.1**	4.4	5.9	7.9	6.3

*Figures in 2005 Q4 are forecasted by the High Frequency Macroeconomic Forecasts Model of APEC Study Center, University of Hong Kong.

Source: Census and Statistics Department, HKSAR.

In the second period 1998-2005 economic recession had set in and deflation appeared. It was also a period where relocation of production facilities out of Hong Kong had slowed down and when cross border consumption patterns began to emerge more prominently. During this period prices of imports were also falling and the Hong Kong currency was weakening relative to its trading partners as a whole due to its link with the US Dollar. The real interest rate was very high as a result of falling domestic prices. Real consumption grew slower than real GDP as a whole during this period. The period is particularly interesting when broken down into four sub-periods to reveal the turning points of the business cycle.

In the year 1998, immediately following the Asian Financial Crisis, the real export fell by 4.3% following almost a decade of double digit growth. Real GDP also fell by 5.5% and real consumption dropped by 6.8%. Import price inflation was negative 4.9% and the nominal effective exchange rate appreciated by 5.5%. The nominal best lending interest rate reached a peak of 9.9% with consumer price inflation at 2.9%, the real best lending interest rate was at 7%. In the sub-period 1999-2002 the economy rebounded briefly but succumbed to the 2001 global economic recession and deflation began to set in firmly; the bursting of the internet asset bubble in 2000 also took its toll.

The year 2003 was one of a great reversal in economic fortune. At the beginning of the year there was great promise of an economic recovery starting from the rebound that began towards the end of 2002 in real exports growth. The Hong Kong Dollar followed the US Dollar and started to depreciate. Import price deflation was beginning to end. Nominal interest rates were beginning to adjust downwards. But Hong Kong would be ravaged by Severe Acute Respiratory Syndrome (SARS). the Hong Kong economy shrank by 0.7% year-on-year in the second quarter from the 4.3% growth achieved in the first quarter of 2003. Real consumption dropped 1.1%. Nevertheless, strong global economic growth contributed to the rapid economic rebound starting from the third quarter of 2003.

In the sub-period 2004-2005 the evidence of broadly based economic recovery is reflected in strong growth of external trade, falling interest rates, and rising consumption and investment. The Hong Kong Dollar continued to weaken and import prices were rising. Deflation had disappeared and a modest amount of price inflation emerged. Real GDP was growing at 7.8%.

To what extent is deflation in Hong Kong a result of structural factors as opposed to cyclical factors?

According to a recent study by the Hong Kong Monetary Authority (April 2002), the average price differential, based on 300 products, between Hong Kong and 4 Mainland cities, namely Shenzhen, Guangzhou, Shanghai and Beijing, was estimated to be around 20 per cent in 2001. They found that this differential would depress the overall price level in Hong Kong by less than 0.5 per cent over a one-year period. Prices in Hong Kong and the four Mainland cities have been converging, albeit very slowly. The existing price differential would on average be reduced by half in 6.5 years.

Another recent study by the International Monetary Fund (May 2002), using the ratio of the consumer prices indices in Hong Kong and Shenzhen as a measure of the average price gap, suggests that the price level gap plays only a minor role in explaining the deflation in Hong Kong. Cyclical factors, as proxied by unemployment rate, credit growth and the nominal effective exchange rate, are much more important determinants of deflation in Hong Kong.

The studies by the International Monetary Fund and the Hong Kong Monetary Authority suggest that deflation in Hong Kong can be explained primarily by cyclical factors. The persistence of deflationary pressures should not be interpreted primarily as a result of structural transformation of the Hong Kong economy. This structural interpretation of deflation does not appear to be firmly supported by empirical evidence. Indeed the low returns from the very large net external assets of Hong Kong and the bursting of the property market bubble are more proximate causes of the deflation experienced in Hong Kong, and both are primarily related to the business cycle effect. Although one could argue that these effects might have been magnified through its interaction with structural factors. In a study conducted by the Hong Kong Monetary Authority (March 2002), the output gap was estimated using annual data from 1976 to 2000. Their findings show that it takes 1 to 2 years for an output gap to move from its trough to zero.

Drawing on these various studies Wong (2002) predicted that prices will start to rise again in 2003 provided that import prices are stable or increasing. If import prices continue to fall then deflation in Hong Kong would continue into 2003. These predictions were premised on a model that one could provide quantifiable estimates that the deflationary episode is primarily cyclical in nature. Deflation in Hong Kong would be readily corrected if the global economic recession ends and the economy start to pick up. Given the empirical evidence, it would take one to two years for consumer prices to stabilize. As the global economy recovers, as the US currency weakens, and as import prices cease to fall the prospect of deflation ending soon was likely to be good.

The price convergence process resulting from the economic integration with the Mainland and structural economic transformation of the Hong Kong will continue for a considerable period of time. It will, however, exert only a minor dampening effect on the average price level in Hong Kong given its slow moving process.

In conclusion, deflation in Hong Kong in the period 1998-2003 was primarily the consequence of a macroeconomic adjustment to global and regional negative economic shocks. The effects were propagated through an economy that was extremely open to international trade and investment flows. Aggregate demand flows were negatively affected directly and repeatedly. Feedback effects generated by declining asset prices and wealth positions resulted in further contractions that took time to repair. Eventually deflation ended when the global economy recovered and Hong Kong regained its competitiveness as a consequence of a weaker US currency, lower interest rates, and after deflation had run its course.

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