## THE LINKED EXCHANGE RATE SYSTEM: REVIEW AND PROSPECTS \*

Critics of the exchange rate link often assert that fixed exchange rates, by removing monetary autonomy, cause asset price bubbles. However, over the past decade asset price inflation has been as least as much a problem in economies with flexible rates. Hong Kong will maintain the linked system, given its high reserves, fiscal and trade surpluses, strong banking system, flexible economy and appropriate monetary armoury.

I am extremely honoured to be invited here to join this forum organised by the Economics Society on a review of the linked exchange rate system, which is now II years old. I have only last October talked about the importance of the link to Hong Kong, and I should not try to repeat myself. However, in January the Asian currencies were tested by the ripples of the Mexican crisis, and the link performed exactly as it was designed to work – to give exchange rate stability to Hong Kong.

After the Mexican crisis, there are now more and more advocates of the currency board system to provide countries faced with macro-economic volatility with exchange rate stability. As the old saying goes, success is relative – the more success, the more relatives. Just as we all know that you can't play like Michael Chang just by buying a particular brand of tennis racquet, I don't think you can reproduce another Hong Kong if you simply adopt the currency board or the linked exchange rate system. It may be useful therefore if I take this opportunity to clarify how the link works and why it works well for Hong Kong. Specifically, let me try to answer a few key questions:—

- Would a flexible exchange rate system work better for Hong Kong?
- Is the link responsible for the asset price bubble? and
- Is there a free lunch?

### Floating versus fixed rate regimes

Let me tackle the easy question first. Advocates for the flexible exchange rate regime tend to forget that Hong Kong tried this between 1974-83 and it did not work. Under the floating rate regime, we

had as high, if not higher volatility on almost all fronts. The Hang Seng Index fell 60.5% in 1974 and rose 104.5% the next year. Real GDP growth dropped to 0.3% in 1975 and climbed to 16.2% in 1976. Inflation also swung sharply from a trough of 2.7% in 1975 to 15.5% in 1980. And, of course, the value of the HK dollar moved from HK\$5.13 in 1981 to HK\$9.60 to the US dollar in 1983, when the Hong Kong public decided enough was enough and opted for the linked exchange rate system at HK\$7.80 to US\$1 on 17 October 1983 (Chart 1).

The evidence is overwhelming that under the linked exchange rate regime, the economy has prospered:—

During the 10 years, 1984 to 1994

- Average real GDP growth was 6%;
- Average real GDP per capita growth was 5%, and during this period, Hong Kong overtook many OECD countries, including the United Kingdom, in terms of per capita GDP;
- Average (visible and invisible) trade surplus was 8% of GDP;
- Average fiscal surplus was 2% of GDP.

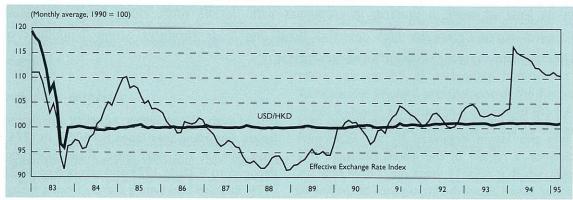
Let me now run through what we call in economics, the counter-factuals, that is, the perceived advantages of a flexible exchange rate.

First, a flexible exchange rate can cushion an economy against shocks. Well, it was precisely because the old floating exchange regime could not withstand the shocks of 1982-83 that we changed to the linked rate system. Since then, the link has more than proved its resilience, in the face of the

This is the text of a speech given by Andrew Sheng, Deputy Chief Executive (Monetary) of the HKMA, to a forum organised by the Economics Society at the University of Hong Kong on 17 February 1995. He is grateful to John Hawkins, Pauline Ma and Sunny Yung for research assistance in its preparation.

This speech appeared as "The Importance of the Link to Hong Kong's Financial Stability" in the February 1995 issue of the Quarterly Bulletin.

Chart I
Hong Kong Dollar Exchange Rate



Source: HKMA

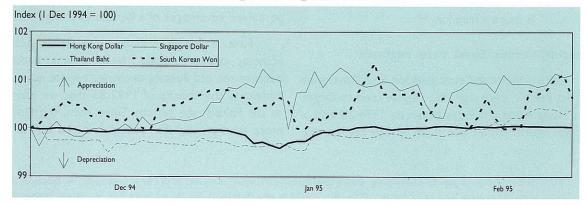
1987 stockmarket crash, the June 1989 events in China, the 1990 Gulf war, the collapse of BCCI in 1991, the ERM crisis in 1992, and more recently, the Mexican currency crisis. You will notice that in mid-January, the HK dollar moved less than 0.5%, while flexible exchange rate regimes in the region moved by as much as 3.6% on the same day (Chart 2).

Second, a fixed exchange rate will not allow you to have an independent monetary policy. This assertion needs some clarification. It is true that we generally follow US interest rates, but this does not mean that we have to have identical interest rates. Given an open capital account, a linked exchange rate means that the supply and demand for the domestic currency will adjust at the prevailing market interest rates. On the stronger side of the

link, we may find interest rates slightly lower than US interest rates, and on the weaker side, vice versa. Remember, the monetary policy of Hong Kong is exchange rate stability, and both domestic interest rates and money supply will adjust to the linked rate. We have no other targets.

Third, a floating exchange rate regime will allow you to use the interest rate tool to fight inflation. On the surface, this appears an extremely powerful argument. True, under the link, inflation averaged higher than we would have liked, at an average rate of 7.7% between 1984-94. However, between 1979 to 1983, the average inflation rate under the floating exchange regime was even higher at 12.6% per annum. During that time, with market determined interest rates, the real lending rate was negative in two years, 1977 (-0.8%) and 1980

Chart 2
Exchange Rate Against US dollar



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Source: DATASTREAM

(-1.9%). This reinforces the fact that the interest rate tool is not the be all and end all of anti-inflationary tools. There are many other tools, such as fiscal and supply side policies. Hong Kong has been most disciplined in using these tools, and as we have all seen, they do work, but we can never please everyone.

In fact, recent economic research suggests that in a world of free flowing capital, using interest rates alone to control inflation may not work, because massive capital inflows could offset the contractionary impact of tight monetary policy.<sup>2</sup> Allowing the exchange rate to appreciate can lead to overvaluation, causing what is known as the Dutch Disease, that is, higher consumption and ultimately leading to speculative attacks and capital flight. The Latin American economies have been prone to such a phenomenon, and that is why there are now more advocates for a more disciplined currency board arrangement.

This brief survey of the pros and cons of exchange rate regimes suggests that *a priori*, we cannot say whether either regime is better or worse for any single economy. However, the historical evidence points to the conclusion that the linked exchange rate regime has served Hong Kong well and will continue to serve Hong Kong well.

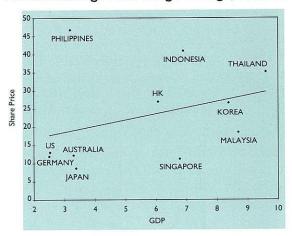
Let me now turn to the common, and most serious, critique of the link, that is, that it fuels an asset price bubble.

# The link and the asset price bubble

The first point I wish to make about asset price inflation is that recent evidence of asset price bubbles occurred mainly in countries with flexible exchange rates, such as Japan, Australia, Scandinavian countries and the United Kingdom. All these countries were free to use their interest rate tools, and yet the bubble occurred.

In the case of Hong Kong, rises in share prices have been associated with strong economic growth and rising corporate profits, which are highly correlated (Chart 3). Current price/earnings ratios in Hong Kong are not out of line with historical levels or other markets.

Chart 3
Share Prices and Real GDP
Annual Average Percentage Change, 1985-94\*

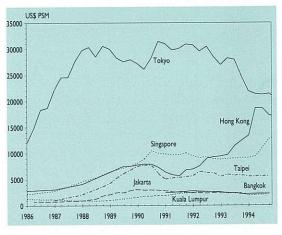


\* For Indonesia: 1989-94; for the Philippines and Thailand: 1987-94; for Malaysia: 1988-94

Sources: IMF, Asian Development Bank

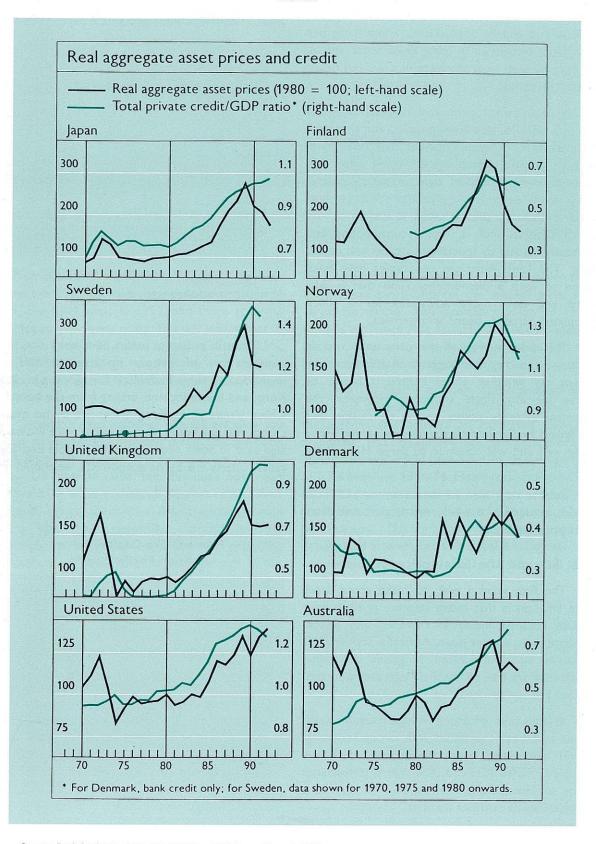
Rises in property prices have been due to a combination of supply constraints and an unanticipated surge in demand for services in Hong Kong, and hence income, arising from the boom in China. While Hong Kong prices are by no means cheap, you will notice that property price increases also exist in other economies with flexible exchange rates (Charts 4 & 5). As economists, we should not

Chart 4
Prime Office Capital Values
in Asian-Pacific Region



See "Monetary and Exchange Rate Management with International Capital Mobility", proceedings of the 11th Pacific Basin Central Bank Conference, Hong Kong 1995 (forthcoming).

Chart 5



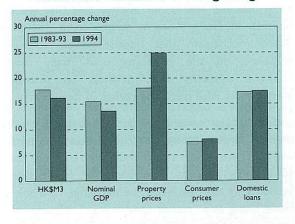
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Source: Bank for International Settlements. 63rd Annual Report 1993.

only look at changes in nominal domestic prices, but at real or international prices. A property price increase of 15% in an economy with a flexible exchange rate that appreciates by 10% against the US dollar is exactly equivalent in US dollar terms, with a property price increase of 26.5% in an economy with an exchange rate fixed against the US dollar.

The second point I wish to make is that asset price inflation is dangerous when it is financed by imprudent bank lending. In Japan, for example, between 1986-89, bank lending rose 22% above the nominal GDP growth rate. In contrast, domestic credit growth in Hong Kong between 1984-94, at an average of 17% per annum did not show appreciable difference from HK\$M3 (18%) and nominal GDP growth (15%). In fact, we can explain the higher average property prices growth during the period through scarce land supply and pent-up demand for housing in Hong Kong (Chart 6).

Chart 6
Economic Indicators of Hong Kong

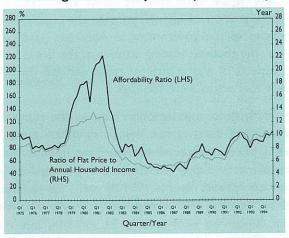


The Hong Kong banking community should be congratulated on their remarkable restraint and prudence in lending to property. By progressively reducing their maximum loan-to-valuation ratios from over 88.3% in 1989 to 69.5% in 1994 for small to medium flats, and from 86.8% to 54.8% for luxury flats, the banks have cushioned themselves quite well against sharp declines in property prices. Indeed, our recent residential mortgage survey

suggests that the average outstanding loan-to-valuation ratio for residential mortgages in Hong Kong was 53.3% at the end of September 1994, a level that is still comfortable considering that, on average, property prices were estimated to have fallen 10 to 15% from their peak, and at the margin, around 23%³, but were still 2% higher than prices at January 1993. In other words, banks have remained prudent and they have protected themselves from the asset price rises.

No one would deny that house prices are high, but if we look at the Housing Affordability Ratio, we can see that the ratio is still lower than the high levels reached in 1979-81 (Chart 7). A deflation in property prices is obviously painful for some, but they make housing more affordable for others.

Chart 7
Housing Affordability Ratio (39.9m² Flat)



Source: Rating & Valuation Department, provisional figures for Q2/94 – Q4/94.

Charts 8 & 9 show how equity and property prices have reacted to real interest rates. What is particularly interesting is that negative real interest rates do lead to sharp rises in equity and property prices, but high real interest rates do not necessarily retard the growth of prices, as the experience of 1983-1986 shows. There is no question that the negative real interest rates of 1991-1993 have contributed to a rapid increase in asset prices, but you will notice from Chart 4 that asset prices rose

<sup>&</sup>quot;The Financial Trend", 12 February 1995, survey of transaction prices at 10 large residential projects in Hong Kong.

Chart 8
Equity Price and Real Interest Rates

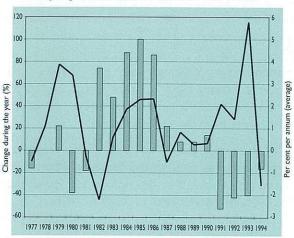
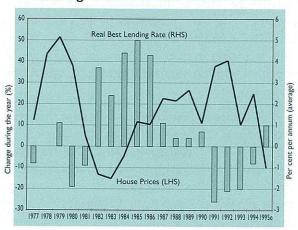


Chart 9
Housing Prices and Real Interest Rate



Note: Figures for 1995 are estimate

in many other countries with flexible exchange rates, notably Japan and Singapore. The recent turn in asset prices in Hong Kong can be attributable to a combination of factors, namely, the supply side policies of the government in April and June last year, the cautious lending attitude of the banks, the prospects of higher interest rates, and the market view that prices were too high.

My general observation from all the above is that Hong Kong is not unique in suffering from asset price inflation, which may have been caused by domestic supply constraints, the exceptionally low US interest rates in 1991-93 and a deregulated global financial environment with high growth. We are concerned with asset price inflation, but we can not, and should not, attribute it solely to the exchange rate regime.

## Is there a free lunch?

Since I am lecturing during lunchtime, and I have not yet had lunch, there is obviously no free lunch. Hong Kong is the freest of free economies, and everyone understands that there is no free lunch, an expression made famous by Professor Milton Friedman, who has always quoted Hong Kong as the best example of free enterprise. It was he who pointed out at the HKMA's Tenth Anniversary Seminar on the Linked Exchange Rate

in October 1993 that "one essential for a monetary system is that it has some anchor" and that in general, "a small country is better off linking its own currency to that of a major country, particularly one with which it has close economic relationships, which is a major trading partner". Let me say right away that the link is our anchor and that we do operate in Hong Kong a strong form currency board mechanism that imposes even stronger discipline on the economy than many other financial systems that profess to practice monetarism. This discipline comes in many forms.

First, our note issue is 492% backed by the seventh largest foreign exchange reserves in the world. These reserves are equivalent to more than 10 months imports. The Bank for International Settlements has described the exchange rate link in Hong Kong as a "rather special case", arguing "the sheer size of the Exchange Fund available to defend the currency has given this commitment almost unparalleled credibility". We should also understand that the international reserves backing the Hong Kong dollar comprise not just the foreign exchange assets with the Exchange Fund, but also the net foreign assets of the banking system backing their HK dollar liabilities. At the end of 1994, the net international reserves of Hong Kong amounted to US\$48 billion or 34% of HK\$M3, virtually unprecedented considering that international

<sup>4 &</sup>quot;Do we need Central Banks?" Monetary Management in Hong Kong, October 1993.

reserves are only 6% of the money supply in Germany and 2% in the US and Japan.

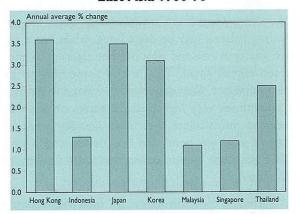
Second, the Government has been running a fiscal surplus averaging 2 per cent of GDP for the past decade. There is no government debt to speak of. We do not have a situation where the Budget or the balance of payments have to rely upon the next bill tender to finance the next week's payments. Indeed, the reverse is true, we worry about where to put our surplus funds.

Third, the economy is running not only a surplus on the trade account of the balance of payments but also a surplus on the total balance of payments. Between 1987-93, the visible and invisible trade surplus averaged 8% of GDP, and the total surplus on the balance of payments, as roughly represented by the average annual increase in the net foreign exchange assets of the Hong Kong banking system (Exchange Fund plus authorised institutions) averaged 5% of GDP. Lest anyone forget, with gross domestic savings of over 34% of GDP in 1993 and gross domestic investment of 28% of GDP, Hong Kong is a net exporter of funds, not a net importer.

Fourth, we have a very strong, prudent banking system, backed by regulation of international standards. Banks in Hong Kong have a capital adequacy ratio of 17.5% at the end of December 1994, with healthy, growing profits that is the envy of the world. Since the large banks are also note issuers, they have a strong interest in the stability of the currency.

Fifth, the economy is not only still growing strongly, at roughly 5.5 to 6.0% rates, but has more than demonstrated its flexibility and resilience. As various studies have shown, total factor productivity growth in Hong Kong is amongst the highest in East Asia (Chart 10). It is this labour and entrepreneurial flexibility and productivity that maintains our competitiveness. The commitment to the link provides a useful discipline on policy-makers and businesses alike. Hong Kong competes on quality and innovation, and not a "soft option" or "quick fix" of giving the economy a temporary boost in competitiveness by changing the exchange rate. Despite a 20% rise in the trade weighted

Chart 10
Total Factor Productivity Growth:
East Asia 1960-90



Source: World Bank, The East Asian Miracle, 1993.

nominal effective exchange rate index over the past decade, Hong Kong has kept up overall export competitiveness, thanks to our nimble business leaders.

Sixth, in recent years the HKMA has introduced various reforms to its monetary management tools, or more aptly, our monetary armoury, to maintain exchange rate stability. These include the 'Accounting Arrangements' (1988), the introduction of Exchange Fund Bills (1990), the establishment of the Liquidity Adjustment Facility (1992), and our new mode of money market interventions (1994). As was seen in January, our determination to use the interest rate tool was sufficient to deter further speculation against the HK dollar. In fact, currently, the HK dollar is at a stronger level than it was at 1994 year end.

I would like to clarify a bit on the role of the monetary base. One recent commentator thought that a six-fold increase in the clearing balance of the banking system, or what he calls the monetary base<sup>5</sup>, between 1990 and 1993 as something akin to "ballistics". In Hong Kong, under the Accounting Arrangement, the HKMA influences bank liquidity through the Balance of the account the Management Bank maintains with the HKMA. The Management Bank also manages the net clearing balance of the

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<sup>5</sup> Strictly speaking the monetary base comprises the monetary liabilities of the monetary authority, in other words, currency on issue plus the Balance of the Account.

rest of the banking system, since they settle across its books. Between 1992 and 1994, the Balance has fluctuated roughly between \$1 billion to \$4 billion, depending on the liquidity of the banking system. Of course, when there are inflows of funds, the net clearing balance may be quite large, while there are also seasonal reasons why the net clearing balance is sometimes small. This is not something to be alarmed about. Our experience is that the Balance is sometimes very high because banks on the odd occasion miscalculate their own liquidity position. That is why we need and are developing a new RTGS payment system to manage funds flow more efficiently.

The part of the monetary base represented by the Balance is very small relative to HK\$M3, being less than 0.2% at the end of 1994. We can so far find no stable statistical relationship between the base and HK\$M3, so any observation that one leads to the other is coincidental.

To the extent that the HKMA intervenes through the use of foreign exchange swaps, any increase in the monetary base is fully backed by foreign exchange. We use a whole range of instruments in influencing the level of interbank liquidity to manage inter-bank interest rates, and consequently, maintain exchange rate stability.

The HKMA has only a single target – exchange rate stability. That is the mandate that the people of Hong Kong have given us through the Exchange Fund Ordinance. We do not have other targets such as inflation, employment or the like to confuse our single-minded purpose. Short-sellers please note.

In sum, Hong Kong's commitment to the link is a commitment to financial discipline at all levels.

There is not only fiscal discipline by the Government, but strong banking discipline in maintaining high reserves and capital adequacy. At the borrower level, financial discipline is maintained by low levels of leverage and low loan-to-valuation ratios.

I hope it is now clear what I mean by no free lunch. The discipline behind the link is the philosophy of Hong Kong's free market, free enterprise strategy. The commitment to productivity gains and flexibility, and the short-term costs or pain that it imposes, is as important to Hong Kong's continued long-term prosperity as the commitment to the link. Exchange rate stability is the anchor and key to Hong Kong's prosperity. We are determined to maintain that stability. We are also not complacent, as we will continue to strengthen our monetary tools to achieve exchange rate stability.

#### Conclusion

It comes as no surprise that for the logical and empirical reasons I have given, I am an unabashed supporter of the link. Almost all parties, the British, Chinese and Hong Kong Governments, all agree that the link serves Hong Kong well and will continue to do so after 1997. The objective of exchange rate stability, and the commitment to the HK dollar, is embodied not only in the Exchange Fund Ordinance, but also enshrined in the concept of 'one country, two currencies and two monetary systems' of the Joint Declaration and the Basic Law.

Moreover, the market speaks louder than words. The closeness of yields on Exchange Fund paper with those on US Treasuries of the same maturity, suggest that the market demands no significant premium over the 1997 factor and that the link will be maintained for years to come. ®