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REALISTIC EXCHANGE RATES:
A POST-ASIAN FINANCIAL CRISIS PERSPECTIVE

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1. Introduction

Just about everyone is concerned about currency crises. Currency crises can ruin enterprises, destroy jobs, cause inflation, send interest rates sky-high, and arbitrarily and unfairly redistribute wealth. Innocent people get hurt. Life savings can be lost. Even governments may fall. The Asian Financial Crisis has forcefully put the message across: currency crises can shatter lives and topple governments. There does not seem to be anything that could be worse than a full-blown currency crisis.

Some economists have tried to come up with "early warning systems" that can raise alarm before crises strike (Kaminsky et. al. 1997 and Chote (ed.), 1998). Perhaps the size of the current account deficit relative to the GDP, perhaps the size of the government budget deficit--perhaps some other indicators such as the country's degree of dependency on short-term foreign debt, could serve the purpose. Apart from such early warning systems, some economists have provided their own definitions of what constitute a currency crisis. Some say that if the exchange rate should fluctuate beyond a certain range one could say a crisis has occurred. But it appears that such systems are not of much use. On any of these counts Hong Kong, for example, has neither been vulnerable to a currency crisis nor has faced any crisis at all. But Hong Kong is widely believed to have suffered greatly from the currency attack that it endured in 1997 and 1998. Officially at least, Hong Kong's unprecedented recession of 5.3 per cent in 1998 was due to the Asian Financial Crisis[1]. Hong Kong's overnight inter-bank lending rate briefly breached 280 per cent on 23 October 1997 on the back of a massive attack on the Hong Kong dollar, which sent the stock market plunging. The crux of the crisis was that people did not believe that the prevailing exchange rate could hold.

[1] For an alternative explanation, see Ho (2000), Chapter 18.

I would define a *true currency crisis* as a situation in which the prevailing exchange rate has lost credibility and tension has developed in the financial market and in the economy. To avoid exchange rate crises, the exchange rate has to be at a level that is credible. A credible exchange rate is such that it is consistent with full employment and balance of payments equilibrium over the long term. Clearly an excessively high exchange rate erodes the country's competitiveness and unemployment may ensue. Clearly the exchange rate cannot hold if the country keeps losing its foreign exchange reserves. In the short run, however, because of speculative pressures, perhaps triggered by the contagion, market players may sell the currency in huge volume thus creating pressure for it to depreciate. Such short term selling need not however undermine the current exchange rate's long term credibility if the country's foreign exchange earnings match its foreign exchange payments. As long as the latter is the case and the exchange rate is consistent with full employment, I would say the current exchange rate is inherently defendable. Even though there may be an appearance of a currency crisis there is no true crisis. I will call such situations "*apparent crises*." Whereas the currency should devalue when there is a true crisis devaluation is not warranted under apparent crises. Not only should the central bank not devalue the currency, but it also must not raise interest rates to fend off the short-term selling. Since the currency is defendable it should be defended. There is a third kind of currency crisis which I call "*disguised currency crisis*." There need not be market pressures for the currency to devalue. Indeed quite the reverse may be true. A currency may become increasingly overvalued due to market pressures, to the extent that the exchange rate becomes incompatible with full employment. Thus, overvaluations may occur under a regime of linking with a host currency as well as under a regime of floating exchange rate.

The next section will examine two cases of "true currency crisis." I argue that currency crises need not be a result of excessive short-term borrowing, lack of fiscal discipline, excessive money supply growth, or crony capitalism. While any of these factors, acting on its own or in conjunction with others, will erode investors' confidence and prompt a currency crisis, perfectly "straight economies" could also run into trouble. Hong Kong is a case in point. Hong Kong's currency crisis in

1997 belongs to the true crisis category even though it was well behaved fiscally and its financial institutions followed all the basic rules of prudence. The Thai baht debacle, on the other hand, provides a case of true currency crisis arising from excessive short-term borrowing coupled with a link to the US dollar.

Section III will examine two cases of apparent currency crises. The Malaysian and the Singapore economies were hit by currency devaluation pressures in 1997, not withstanding strong economic fundamentals and a dearth of evidence that their currencies were grossly overvalued.

Section IV will present the Japanese yen as a case of disguised currency crisis. The yen has been floating all along and pressures had been for it to appreciate rather than depreciate. Yet it had, over the years, appreciated to such levels that its economy stagnated.

What all this means is that neither a floating exchange rate regime —with or without bands, nor a fixed exchange rate regime, will free us from the threat of currency crises. Section V, the conclusions, argue that it is in the interest of the international financial community to maintain exchange rates at the sustainable or defendable rates. A concerted effort, through a mechanism fully supported by all the world's major economies, should be made to protect such exchange rates.

2. The Hong Kong Case vs. the Thai Case

It is obvious that Hong Kong was under great stress during the Asian Financial Crisis. The Forward Exchange Rate for the US dollar in terms of the Hong Kong dollar showed a huge premium —over 6000 points for the 12 month contract in January 1998. That is, whereas HK$7.75 converted to one US dollar in the spot market, the market expected that in a year's time more than HK$8.3 would be needed to buy one US dollar. Along with such expectations for the HK dollar to depreciate, interest rates in Hong Kong went up dramatically. As interest rates went up, the stock market went down. During the week ending on October 23, 1997, the stock market lost 23.34 per cent of its value. As Table 1 shows, pressures on the Hong Kong dollar lingered on through 1998, but by March 1998 they had eased considerably.

Table 1: Forward Exchange Rate as Compared with the Spot Exchange Rate, Hong Kong

Daily- Middle Rate						(HKD against USD)
	Spot	1-month	3-month	6-month	9-month	1-year
15-Oct-1997	7.7385	90	280	535	800	1000
17-Oct-1997	7.7400	90	295	565	850	1125
20-Oct-1997	7.7420	145	445	825	1150	1400
21-Oct-1997	7.7475	265	750	1500	1850	2250
22-Oct-1997	7.7475	550	1350	1650	2950	3750
23-Oct-1997	7.6900	1550	2950	4050	4900	6000
24-Oct-1997	7.6900	1050	1850	2750	3500	4300
27-Oct-1997	7.7305	750	1550	2550	3100	3800
29-Oct-1997	7.7335	400	1000	1950	2700	3200
31-Oct-1997	7.7305	350	1100	2050	2800	3600
3-Nov-1997	7.7325	225	650	1500	2050	2750
10-Nov-1997	7.7325	650	1800	3050	3950	5000
12-Nov-1997	7.7295	575	1600	2700	3550	4500
19-Nov-1997	7.7295	305	1200	2550	3550	4750
21-Nov-1997	7.7305	205	850	2000	3250	4250
28-Nov-1997	7.7303	155	730	1600	2450	3450
3-Dec-1997	7.738	125	750	1850	2650	3650
5-Dec-1997	7.737	80	630	1700	2650	3550
8-Dec-1997	7.7385	48	525	1500	2300	3450
12-Dec-1997	7.7493	260	1000	2400	3800	5000
19-Dec-1997	7.75	65	625	1780	3050	4050
24-Dec-1997	7.75	65	625	1900	3350	4450
31-Dec-1997	7.75	95	655	1850	3100	4150
5-Jan-1998	7.75	195	900	2250	3650	4950
7-Jan-1998	7.7345	255	1000	2500	3850	5250
9-Jan-1998	7.747	580	1650	3250	5050	6800
14-Jan-1998	7.744	500	1400	2750	4050	5800
19-Jan-1998	7.74075	495	1400	2950	4450	5950
23-Jan-1998	7.738	245	1175	2750	4250	6050
26-Jan-1998	7.7422	325	1300	2950	4550	6150
2-Feb-1998	7.738	165	780	2050	3550	4850
6-Feb-1998	7.7375	100	655	1650	2750	4150
11-Feb-1998	7.739	45	425	1350	2300	3400
16-Feb-1998	7.7395	110	650	1750	2950	4150
20-Feb-1998	7.746	65	465	1100	2550	3300
25-Feb-1998	7.7465	30	345	1020	1800	2850
2-Mar-1998	7.7438	25	295	920	1650	2450
6-Mar-1998	7.744	70	445	1200	2050	2950
9-Mar-1998	7.74355	65	410	1150	2000	2950
13-Mar-1998	7.7455	43	335	1050	1850	2850
19-Mar-1998	7.748	2.5	175	750	1400	2300
23-Mar-1998	7.74875	15	87.5	540	1050	1700
25-Mar-1998	7.748	14.5	120	625	1250	2000
30-Mar-1998	7.7463	2.5	130	625	1200	1900

Source: Hong Kong Monetary Authority

Why was the Hong Kong dollar subjected to so much selling pressures? The world certainly knows well that Hong Kong has about the world's biggest foreign exchange and fiscal reserves in per capita terms. Hong Kong has no official foreign debt and only a tiny official internal debt. Hong Kong's bank regulators imposed on its banks standards that far exceed the Basle capital asset ratio requirements, and none of its financial institutions was under any imminent risk of insolvency. The reason, according to my analysis, is that the market did not believe that the exchange value of the Hong Kong could hold —given that the US dollar had appreciated so much against most other currencies, the HK-US dollar link, and Hong Kong's recent inflation history. The market lost confidence in the Hong Kong dollar because it believed that without a large devaluation of the currency Hong Kong's economy would not be able to compete with others. Because of the strength of the US currency and given the history of high inflation, the market had good reason to suspect that the Hong Kong dollar had to depreciate. In the end, the dollar did not depreciate, but Hong Kong went through a painful period of deflation and adjustment.

Like the Hong Kong dollar, the Thai baht had been informally linked to the US dollar for quite some time. Over the years, Thailand had lost competitiveness because of new competition from the emerging economies. It had been falling into debt steadily, and short-term borrowing from overseas had fuelled an unsustainable real estate boom. Meanwhile, its current account deficit had grown bigger and bigger, while the foreign exchange reserves were becoming smaller and smaller. The immediate urge to sell the baht, however, was prompted by the fall of Finance One, the biggest finance company in the country. The decision to devalue the baht on July 2 1997 was first welcome by the financial markets. The stock market actually rose almost 8 per cent this day, showing that the devaluation was seen as a positive move to deal with a long-standing problem realistically. However, with the foreign exchange reserves down to dangerous levels, investors continued to be worried, particularly as the central bank suspended operations of 16 finance companies. On August 5 Thailand unveiled an austerity plan in line with IMF recommendations and suspended another 48 finance companies.

The Hong Kong dollar and the Thai baht were attacked for different reasons. In the former case it was because the US dollar link had taken the HK dollar exchange rate to increasingly incredible levels, particularly given the devaluations of other Asian currencies. In the latter case it was because of gross weakness in economic fundamentals. In the end, however, the central banks of both economies panicked and raised interest rates to unprecedented levels, bringing ruinous effects across the entire economy. Ultimately, Hong Kong had to face a period of painful deflation, while Thailand had to struggle with cleaning up its financial mess.

3. Malaysia and Singapore

Malaysia and Singapore were innocent victims of the contagion. Although Malaysia in 1996 had a current account deficit at 4.6 per cent of its GNP, this represented a big improvement over 1995, when the current account deficit was as high as 10.2 per cent of the GNP. The gross savings rate was maintained at the high level of about 40 per cent, while inflation was mild. Singapore had an ongoing and growing current account surplus since 1988, and had an even higher savings rate. Singapore also boasts one of the world's highest per capita foreign exchange reserves.

Based on the economic fundamentals, neither countries had a need to depreciate their currencies dramatically. However, to maintain their competitiveness when other currencies in the region had depreciated it makes sense for them to depreciate relative to the US dollar. A larger depreciation than this would be unnecessary. This tactic was followed by Singapore, which allowed its exchange rate to depreciate from 1.4305 S$ to the US dollar on July 1 1997 to 1.6755 S$ to the US dollar by year-end —a decline of 15.48 per cent. The prime lending rate was not raised until November 1997 and it peaked at 7.79 per cent through August 1998 and then was reduced decisively to 5.9 per cent by the end of 1998. Malaysia had much more humble reserves and depreciated much more and raised interest rates much more to defend the ringit. The base lending rate offered by the commercial banks when up to 12.27 per cent by mid 1998 from about 10 per cent in 1997. The average lending rate offered by merchant banks was 18.71 per cent by the end of January 1998. It was only in September 1998 after capital controls had been imposed, that interest rates started to decline noticeably. The high interest rates and the capital controls cost the Malaysian economy much growth. Real GDP declined 7.5 per cent in 1998. In contrast, Singapore's GDP growth, at 0.4 per cent, though down significantly from 8.4 per cent the previous year, remained positive in 1998.

The judgement that the currency crises suffered by Singapore and Malaysia were not warranted is vindicated by the big current account surpluses of the two countries after the devaluations. Singapore's current account surplus jumped 40 per cent in 1998, to 25.4 per cent of the GDP. Malaysia's current account showed a surplus equal to 13.7 per cent of the GDP in 1998, which rose further to 16.9 per cent of the GDP in 1999. As it happened, Malaysia never accepted any aid from the IMF. The economy bounced back 5.4 per cent in 1999 and is expected to register a 5.8 per cent growth in 2000.

4. Japan: A Case of Disguised Currency Crisis

On appearance, Japan had no currency crisis. People do not speak of a currency crisis if the currency is subject to appreciation pressures prompted by strong current account surpluses. However, Japan's economy has been battered by the strength of the yen. The formation of the property price bubble is a direct result of the accumulation of huge amounts of savings. The subsequent burst of the bubble and the insolvency of many Japanese banks that followed were the direct results of the strength of the yen which is itself predicated on the strong current account balance.

As Ho (2000) explained, Japan's high savings rate is actually very much the source of its economic woes. "If the Japanese had consumed more, it would not have so much money to pump into real estate. The current account surplus would not have been so big. The yen would not have been so strong. And the asset price bubble would not have formed, let alone burst."

On the eve of the global stock market crash in 1987, the Nikkei index, fuelled by strong savings, had already breached the historical high of 26,000. Yet portfolio diversification considerations suggest that it would make sense to put some of the new savings in the stock market, some money in real estate, and some money on overseas assets. The continued accumulation of savings pushed the Nikkei

Index and property values higher and higher (Table 2). By the end of 1989 the Nikkei was close to 39,000. When the yen hit a new high in 1991, however, it became apparent that it made less and less sense to put more money into the domestic stock market and the domestic property market. Interest in acquiring Japanese assets reversed. Yet, thanks to an efficient manufacturing sector and a highly successful export effort, notwithstanding large capital outflows, the yen broke through historical highs. Between 1990 and 1995, the yen-dollar exchange rate moved from a low of 160 yen to the dollar to a high of around 80 yen to the dollar. As the yen appreciated, home assets, which are denominated in yen became even more expensive. The incentive to sell increases while the incentive to buy disappears. No wonder property prices and stock prices nose-dived. A couple of months after the yen's US dollar exchange rate peaked at around 80 yen to the dollar in April 1995, the Nikkei had fallen below 15000. The land price index had also been shaved by half. Commercial land was particularly hard hit. About 60 per cent of the peak value was lost.

While domestic asset prices plummeted, the value of overseas assets also declined in yen terms as the yen continued to appreciate against the foreign currencies. Because Japan is a net creditor nation, by definition Japan has more foreign-currency denominated assets and foreign currency-denominated liabilities. Appreciation of the yen hurt the balance sheets of Japan's business sector, and indirectly those of Japan's banks even if the latter were prudent enough to ensure that their own foreign liabilities match with their foreign assets.

Table 2: Asset prices and exchange rates in Japan 1984-1997

Year	Stock Price Index	Property Price Index	Exchange Rate Yen/$	Economic Growth
1997	15258.7	44.9	129.9	1.4
1996	19361.3	48.6	116.0	5.1
1995@	19868.1	54.7	102.9	1.5
1994	19723.1	63.2	99.8	0.6
1993	17417.2	71.4	111.9	0.3
1992	16924.9	87.0	124.6	1.0
1991###	*22983.8*	*103.0*	*125.2*	*3.8*
1990##	23848.7	100.0	135.4	5.1
1989#	38915.9	76.9	143.4	4.8
1988	30159.0	61.8	125.9	6.2
1987	21564.0	48.3	138.5	4.2
1986	18701.3	38.4	160.1	2.9
1985	13113.3	33.6	200.6	4.4
1984	11542.6	31.3	251.6	3.9

Source: Bank of Japan

Data for the Land Price Index is for comprehensive use in 6 major cities and is cited from Statistics of Japan 1998 published by the Statistical Bureau of Japan.

Note: Stock price indices are for end of the month at end of the year; the land price indices are average values for the year.

1989 saw the stock market hit the peak and the yen hit a trough

1990 saw the property market jumping following the sharp surge in the stock market the previous year.

1991 saw the yen rising to a nearly all time high having reversed a brief depreciation against the dollar in 1989. Property prices peaked.

@ April 1995 saw the yen touching 80 yen to the dollar, then weakened rapidly. The weakening of the yen triggered a dramatic rise in stock prices that lasted about a year.

Why did the stock market bubble burst in 1990 and the property price bubble burst in 1991 is not an easy question to answer. Ito and Iwaisako (1995) could not find a valid explanation for the stock price increase in the second half of 1989 and the land price increase in 1990 using any asset pricing model based on fundamentals or rational bubbles. The evidence does show, however, that exchange movements certainly played some role. We know that stock prices are much more sensitive to emerging economic trends and they tend to lead property prices and turns in the macro-economy. The yen's depreciation in 1989 increased the attractiveness of Japanese assets and triggered a boom in asset prices. It also slowed the outflow of Japanese capital. The excessive stock price increase, coupled with the realization that the yen's depreciation in 1989 was only a temporary blip triggered a sell-off in 1990. The sharp declines in the stock market in turn aggravated the property sell-off in 1991.

One would ask why in the long years of secular appreciation of the yen, from 360 to the dollar early 1971, through around 125 yen to the dollar in 1988, nothing serious happened. The evidence is quite clear that during these years Japan had invested aggressively in enhancing its productivity and overseas. Through such investments, it managed to preserve its competitiveness so that the manufacturing sector was still going strong in 1988, notwithstanding an already strong yen. *Over the years, however, the accumulation of savings and the absence of alternative instruments of investment inevitably took domestic asset prices to higher and higher levels*. On the back of such price gains, yen appreciation really made it attractive to sell Japanese assets. The result is a trail of bad debts, bank failures, and a stagnant economy.

Historically, the "super strength" of currencies has always spelled disaster for economies. Hong Kong in 1985 was on the verge of a recession because the US dollar to which it was linked was so strong. The UK economy on the eve of the sterling crisis of 1992 also suffered serious unemployment and fiscal deficits for the same reason. The paradox is that a freely floating exchange rate does not guarantee that the exchange rate would be at a level compatible with both internal balance(full employment and fiscal balance) and external balance(balance of payments equilibrium). While a linked exchange rate may become overvalued relative to what is needed for internal balance & external balance by virtue of the strength of the host currency, a floating exchange rate may become overvalued for internal balance by virtue of massive capital inflows or massive current account surplus.

5. Conclusions

All the above suggests that neither floating exchange rate nor fixed exchange rate will protect us from currency crises. Various innovations, including the crawling peg or the idea of an optimal band for exchange rate movement, are really beside the point unless the exchange rate is consistent with the requirements for full employment and macroeconomic stability and is able to hold its place. Paradoxically, in the short term our globalised capital markets may not allow such stability-compatible exchange rate to hold its place. Because of nervousness, herd behavior, or some temporary shocks, the market could bring about an exchange rate way below what is warranted. Hong Kong in 1983 just prior to the introduction of the linked exchange rate system had seen such a scenario, with the Hong Kong dollar falling to about $10 to the US dollar. The Indonesian rupiah fell below 15000 rupiah to the dollar in June 1998, before rising back to about 8000 rupiah to the dollar by year-end. Mirroring the decline in the exchange value of the rupiah, inflation shot up, to over 80 per cent in August, September, and October 1998. Similarly recent declines in the value of the Euro was causing the specter of high inflation. Such exchange rates are inconsistent with economic stability, contribute to run-away inflation, and engender social instability.

People normally do not refer to a strong currency as under crisis. But if the strength of the currency is sapping the health of the economy it is really the source of an economic crisis. The strength of the yen has cost the country a decade's growth. Fiscal measures to stimulate the economy and save the banks only led to fiscal deficits as much as 10 per cent of the GDP. Such ratios are widely regarded as unsustainable and unacceptable, and it is more than 3 times the threshold limit allowed under the Maastricht Treaty for European currencies to join the monetary union.

To conclude, there are exchange rates that are needed for economic stability and the world has to act together to bring them about because the market will not automatically bring them about. Fixed exchange rates, floating exchange rates, crawling pegs, floating bands all will not suffice. What is needed is analysis and understanding of what exchange rates are compatible with stability of the financial markets and the economy. What is needed is a global effort to bring these exchange rates about. We need a strong IMF, or some other international body, to do the job. Knowing what is needed is the first step to deal with a problem. Countries in Asia, having suffered a big blow from the financial crisis, should work together to achieve this.

References

Chote, Robert(ed.) *Financial crises and Asia*, CEPR Conference Report, no. 6. London: Centre for Economic Policy Research; distributed by Brookings Institution, Washington, D.C., 1998, pages xv, 62.

Ho, Lok Sang(2000) *Principles of Public Policy Practice*, Boston: Kluwer Academic Publishers.

Ito, Takatoshi and Iwaisako,Tokuo(1995) "Explaining Asset Bubbles in Japan" National Bureau of Economic Research Working Paper: 5358, November 1995, pages 32.

Ito, Takatoshi, Eiji Ogawa and Yuri Nagataki Sasaki(1998) "How did the Dollar Peg fail in Asia," *NBER Working Paper* # 6729, September.

Kaminsky,Graciela, Saul Lizondo, and Carmen Reinhart, *Leading Indicators of Currency Crises*, International Monetary Fund Working Paper: WP/97/79, July 1997.