

**East Asia Is Not Mexico:
The Difference between Balance of Payments Crises
and Debt Deflations**

by

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What was different about the collapse of the Asian emerging markets in 1997? The free fall of the Mexican peso and the collapse of the Mexican Bolsa produced a “Tequila effect” that spread through most of South America, but did not create a sell off in the global financial markets similar to that which occurred on 27 October 1997. Normally, sharp declines in prices in emerging equity markets produce a “flight to quality”, in which international investors shift their funds back into developed country markets and local investors seek to protect their wealth by diversifying into developed country assets. Yet, the collapse in the Asian emerging markets, that started in Thailand, spread to the other second-tier Newly Industrialising Economies (NIEs), and eventually extended to the first-tier NIEs produced the largest absolute declines ever experienced in the major developed country equity markets. If equity markets can suffer from what Alan Greenspan has called “irrational exuberance”, the Asian crisis suggests that they may also suffer from “irrational pessimism”. Yet, there is much to indicate that in this case the financial markets in Japan, Europe and the US were quite rational in assessing the global implications of the financial crisis in Asia.

The developing countries in Asia have come to play a crucial role in global growth. In the 1990s, they accounted for roughly half of global expansion. The immediate implication of the Asian crises is that the collapse of growth in the region would produce a global deflation. This would make it more difficult for developed economies, particularly Europe and Japan, to expand at rates necessary to generate sufficient investment to produce reductions in unemployment. Recovery in the developed world outside the US and the UK is thus at risk as a result of declining Asian growth. Indeed, if the US cannot continue its current expansion, there is a clear risk of a global depression similar to that of the 1930s.

The stage for the decline in growth in the Asian region has been set by what may be called a

series of competitive devaluations amongst the currencies in the region. The combination of globalisation of production and economic development in these countries has advanced to the point that a substantial proportion of their trade is now within the Asian region (including Japan), rather than with the developed economies.¹ It has been based on a progressive upgrading of the value added to production, as represented in the idea of the “flying geese”. But, the logic of the “flying geese” model is that progress to more advanced stages of development is determined by relative rates of increase in productivity, income per capita and real wages. Since much of the trade is linked to a division of labour within the region, with Japan and the more advanced NIEs exporting capital equipment and semi-finished goods to be assembled in S.E. Asia and then shipped on to others before final export to developed country markets, stable relative costs and prices have played an important part of in regional integration and development. Currency instability is very disruptive to this process, causing random shifts in the relative position of individual countries and in their development plans. Thus, the entire logic of the South East Asian development process would be disrupted by volatile cross rates of exchange of the currencies of the countries in the area creating changes in relative competitiveness independent of changes in productivity and per capita income levels. If restrictive policies are necessary to restore the currency stability required to allow the “flying geese” system of relative positions on the value-added ladder to function, then growth will fall and the demand for exports from the developed countries will decline.

While it is true that neither the US nor Europe depend on Asia for a substantial proportion of their exports (the US exports less than 20 per cent and Europe little over 5 per cent), it is an integral part of the process of globalisation; while the US may not export much to Asia, US companies do import to and export from their production facilities in Asia, so that the overall impact on US income will be much higher.² And these companies are primarily in the high technology area, that has been at the basis of the restructuring of the US economy and the performance of US equity

¹ In 1994, the exports of the Asean-4 plus the first-tier NIEs to developing East Asia plus Japan was \$172 billion and to the other developed market economies \$168 billion. with another \$44 billion to the rest of the world. See UNCTAD, 1996, Table 24, p. 88.

² For example, the percentage of total imports into the US from affiliates of US companies is over 19 per cent from Thailand, over 18 per cent from Malaysia, and nearly 14 per cent from Indonesia. The share for Hong Kong is over 50 per cent and Singapore over 80 per cent. Korea is less than 3 percent while the Phillipines is just over 5 per cent.

markets. But how was it possible for one of the most successful development areas to suffer a virtually complete reversal of fortunes in less than a year?

An Interpretation of the Asian Crisis

The Asian crisis was not a typical balance of payments crisis, such as those experienced with such frequency under the Bretton Woods system, or the Mexican peso crisis of 1994/5. In Mexico, rapid liberalisation of domestic markets caused imports to grow much more rapidly than exports. Tight monetary policy to reduce inflation produced high interest rates, which attracted foreign capital inflows to deregulated and liberalised domestic financial markets which financed the trade gap, while it also caused real appreciation of the peso which further worsened the trade balance by turning relative prices against exports. The capital inflows also encouraged import growth as foreign borrowing allowed domestic banks to compete for domestic market share by lending to households to finance consumption and to arrange foreign exchange loans to domestic business at international interest rates. The result was a continually increasing Mexican payments deficit, along with record increases in banks' non-performing loans, a fall in private savings and low domestic investment, with slow growth and rising unemployment accompanying a fall in the rate of inflation and a government budget surplus.

Irrespective of the reversal of US interest rate policy, which was initiated in February 1994, the real appreciation of the peso would eventually have collided with the increasing external deficit, and Mexico would have experienced an exchange rate crisis that would have been aggravated by a domestic financial crisis due to bad bank loans to households and foreign currency exposure of business clients.³

The Asian crisis of 1997 has been very different. Most countries have been near surplus on

³ The Mexican crisis did differ from prior experience because of the large build up of foreign holdings of domestic financial assets, including government securities, such as Tesobonos that paid returns linked to the US dollar. The IMF bailout package thus served primarily to provide an exit for foreign holders of peso-denominated Tesobonos while preserving currency convertibility. The IMF funding, rather than supporting current account convertibility was thus used for the first time in history to ensure capital account convertibility. The Mexican crisis thus might be said to be the mid-point between a standard Bretton Woods style current account deficit caused exchange rate crisis with restricted capital flows and a financial asset crisis exchange rate crisis under free global movement of capital.

their trade balance, if not on their current account balances, and have a long-term record of fiscal rectitude. Imports were not dominated by luxury consumption goods, savings ratios were extremely high and banks were not financing unsustainable consumption booms. Foreign exchange reserves were high and exchange rates had been stable throughout the 1990s. Yet, there was a discernible tendency towards deterioration in the foreign account caused by a fall-off in the rapid growth of exports in most countries. But, this was caused not by changes in what had until that time been successful internal stabilisation policy, but rather by changes in the external environment, over which they had little control and there were few policy responses available. This is a characteristic of the world of increased economic interdependence and free global capital flows.

External Balance

Current account balances had already started to show weakness throughout the region in 1994. This was, in part, due to the sharp fall-off in import growth in the developed countries. For the developed countries as a whole, the rate of increase in imports fell from 11.0 per cent in 1994 to 7.6 per cent in 1995 to 5.2 per cent per annum in 1996. In Japan, the rate of growth of imports fell from 13.6 per cent in 1994 to 3.5 per cent in 1996; in the US, the decline from 1994 to 1996 was from 12.0 per cent to 6.4 per cent; and in Europe, from 9.1 per cent to 5.3 per cent for the same period. As external positions deteriorated, most countries responded with restrictive policies and external imbalances had started to improve in 1997 (cf. UNCTAD, 1997, : Ch. 1).

By historical comparison, the trade deficits were not large. Ostrey (1997) points out that they cannot be traced to “excessive private consumption.” He further argues that there is “relatively strong” evidence in favour of the long-term “sustainability” of the deficits given the “strength of savings and investment” — which “implies that the resources needed to enlarge future productive capacity are in place and, therefore, that rapid economic growth... is likely to persist. In addition, the allocation of investment appears to be efficient, judging from the strong performance of total factor productivity and exports, as well as the absence of significant relative prices distortions in these economies.” ... “In addition, both the absence of significant exchange rate misalignment together with relatively open trade and investment regimes have tended to foster diversification of the export base in the ASEAN countries, making the trade balance less sensitive to terms of trade shocks, and

reducing the risks associated with terms of trade shocks” (Ostrey, 1997: 20-3).⁴ On this reasoning, the external account should not then have been a cause of crisis.

Capital Flows

The other side of the slowdown of developed country imports is an increase in capital flows from the developed economies into the Asian economies starting in 1993-4. This was further stimulated by the tightening in monetary policy to reduce the deterioration in the foreign balance and by the reaction of international investors to the Tequila crisis in Latin America. There was a sharp increase in the proportion of bank lending into the region, representing a radical change from past experience.

Capital flows require both a borrower and a lender, but they usually are arranged by an intermediary. Thus, in addition to the fall in returns in developed countries that led to a search for higher returns in emerging markets, was the fact that global investment banks were seeking alternative sources of revenue to help them emerge from their difficulties in the US in the 1980s. One of the ways that they could do this was by earning fee and commission income by arranging structured derivative packages which allowed emerging market borrowers access to funds at low interest rates prevailing in developed country markets, while offering to developed country investors assets earning high emerging market interest rates. A popular means of arranging lending was by means of equity swaps in which high-yielding debt issued by emerging market firms or banks was repackaged into investment trust vehicles which could be sold to institutional investors in developing countries as if they were investment-grade assets. Although the technical aspects of these packages are complicated, they almost all depend on the stability of exchange rates, since the exchange rate risk is borne not by the underwriting bank, but by the buyer or the seller.⁵

Financial liberalisation also made it possible for financial institutions in emerging economies

⁴ While Ostrey (1997) notes that any external deficit represents a potential risk in the case of external shocks, it points out that deficits in the 1980s had been much higher without generating difficulty.

⁵ It is for this reason that when the Thai baht devalued, it represented a major event, since all contracts which had been purchased on the high probability of exchange rate stability automatically changed in value, and frequently passed from positive to negative values, leading investors to sell them, which was the equivalent of withdrawing capital from the Asian economies.

to increase their role as intermediaries. The issue of bonds by Asian entities increased from \$25.3 billion in 1995 to \$43.1 billion in 1996. Korea entities alone accounted for \$16 billion, and Hong Kong, Indonesia and Thailand raised about \$4 billion each (IMF, 1997b: 77). Many of these bonds served as the basis for derivatives contracts (discussed above) and were intermediated by off-shore investment funds.⁶ The result was a sharp increase in foreign exchange reserves, which further strengthened expectations of exchange rate stability.⁵

The increase in capital inflows produced a sharp increase in foreign exchange reserves, which further strengthened expectations of exchange rate stability. However, as central banks attempted to keep their currencies from appreciating relative to the dollar, the rise in foreign exchange reserves was translated into increased liquidity for the domestic banking sector and in expanded domestic lending.

Exchange Rate Misalignments

However, this attempt to keep exchange rates stable to prevent loss of competitiveness was only partially successful since the dollar was itself on a strengthening path from the end of 1995, but this only started to become visible in real exchange rate appreciations in a number of countries from 1996. For example, the IMF's *Expanded Competitiveness Indicators System* (Turner and Golub, 1997) reports that Indonesia's real effective exchange rate (the exchange rate of the rupiah corrected for changes in costs and prices in Indonesia relative to its trading partners, weighted by the amount of Indonesian trade with each trading partner), marginally depreciated from 1990 to 1994, and only regained its 1990 level by 1995. In Thailand, the real effective exchange rate in 1994 was the same as in 1990 and rose only marginally in 1995. In Korea, the real effective exchange rate depreciated substantially from 1990 to 1993, and remained at a roughly constant level until 1995. Malaysia and Singapore show marginal rises from 1990 to 1992, and then stability thereafter. Only Hong Kong and the Philippines show substantial and sustained declines in competitiveness due to real exchange rate appreciation over the period 1990-95. This study supports the conclusion of the absence of

⁶ For example, according to the Korean Securities Supervisory Board, 28 Korean securities houses operated over 100 funds with assets of nearly \$3 billion located in Malaysia, Ireland and France. Investment banks were also active in operating offshore funds. Roughly two-thirds of the assets of these funds were in Korean companies. The losses of these funds are estimated at over \$1 billion. Cf. *Korean Times*, 19 February 1998.

substantial exchange rate readjustment cited above.⁷

Domestic Banks and Domestic Credit Expansion

Throughout this period, Asian countries were under pressure from both the IMF and the WTO to modernise, liberalise and deregulate their banking and financial systems. In 1993, Thailand created the Offshore International Banking Facility. The Bank for International Settlements (BIS) notes that its existence “was an important reason for the upsurge in cross-border inter-bank credit to Thailand” (BIS, 1995: 19)⁸ in 1994.⁹ Ostrey (1997: 20-21) notes that “in Thailand, risk-weighted capital-asset ratios were increased for both commercial banks and finance companies in order to comply with BIS standards, and now approach 10 per cent for local banks. In addition, required provisions for doubtful assets were increased, and limits on banks’ net open foreign exchange positions were tightened. While banks have been successful in broadly matching the maturity structure of their assets and liabilities, rapid growth in foreign exchange lending has nevertheless created concerns of increased foreign exchange risk. In Malaysia, the position of the banking system has strengthened in recent years.” In the beginning of 1994, Korea initiated the conversion of short-term finance companies into investment banks, as part of an attempt to introduce features of developed countries’ financial system such as commercial paper markets and investment banking, such as the creation of offshore investment funds that were the major vehicles for the sale of derivative products

⁷ Since the Mexican crisis the IMF has produced a number of studies attempting to identify indicators of future exchange rate and banking crises. The indicator which appears as significant in all of them is real appreciation of the exchange rate, which the IMF studies cited above suggest was not a major factor in Asia.

⁸ The commentary refers to flows in 1994. The report also notes that “tight monetary conditions help to explain the large banking inflows into South Korea.” An IMF Working Paper (Johnson, Darbar and Echeverria, 1997: 38) notes that “net private capital inflows were larger as a percentage of GDP in Thailand than in the other countries and a large part of these inflows through the international banking facility were short term in nature, which may have increased Thailand’s vulnerability to a reversal of such flows.”

⁹ The 1996/97 *Annual Report* (BIS, 1997: 112-3) noted that “the difficulties of Thailand’s banking system can be traced in part to the creation... of the Bangkok International Banking Facilities (BIBF), which, as well as promoting Bangkok as an international financial centre, allowed local banks to borrow in dollars.... The Bank of Thailand has taken a number of measures to limit the growth of the BIBF on lending to the domestic market. From September 1995 local banks’ net foreign exchange liabilities were made subject to ceilings (e.g. 20 per cent of assets) In addition, foreign deposits were excluded from the calculation of the statutory loan-to-deposit ratios that banks have to maintain.”

of Korean banks and corporations. These effectively created a commercial paper market and provided new sources of foreign borrowing.

An IMF Working Paper (Montgomery, 1997:25, 19) notes the completion of the modernisation of the Indonesian banking system. It cautions that the basic problem is no longer the absence of appropriate regulation, but the supervision of the banks to ensure that regulations are respected, especially with respect to the rapid expansion of real estate lending, and to the reliability of the figures on bank capital adequacy. The paper also reports that the ratio of net foreign exchange liabilities to bank equity reached a high of 161 per cent in 1992/3, but had fallen back to little over 100 per cent in 1994/5.

These and other types of liberalisation throughout the region provided a fertile ground for the inflows of foreign investors' funds, which multilateral agencies such as the OECD and the IMF were actively encouraging. However, given the high savings rates in most Asian countries, and the preponderance of foreign direct investment flows (FDI, foreign companies' direct investments in productive capacity) in others, and the relative absence of demands for consumption finance, bank lending was directed primarily into two areas.¹⁰ One was in providing loans to domestic firms, using the supply of cheaper foreign funds to offer interest rates below domestic rates. The other was to finance non-manufacturing initiatives, such as financial services, real-estate investments, and other types of infrastructure investment that previously had been rationed by government policies directing credit towards export-oriented manufacturing industries. With rates of growth averaging 8-10 per cent, and given the increasing importance of the globalisation of production in Asia, it was relatively easy for bankers to justify financing the rapidly expanding needs for new office space, leisure centres, golf courses and recreational residences. The exceptional returns that they expected on such investment could, of course, only be justified on the basis of continued global expansion.

¹⁰ Composition of Bank Loans, 1993 (percentages)

East Asia	Home Mortgages	Consumer Credit	Enterprises	Government
Indonesia	4.1	6.9	70.7	2.2
Korea	12.7	11.7	74.5	1.1
Malaysia	13.9	11.2	30.1	0.5
Thailand	8.3	4.1	58.8	0.7

Source: BIS, 1998: 40

Unfortunately, it was coming to an end.

Asia is not Mexico

Thus, unlike Mexico, it is impossible to argue that excessive domestic bank lending and real exchange rate appreciation led to a consumption and import boom which eventually created an expanding foreign deficit that speculators recognised as unsustainable since both the real exchange rate appreciations and the increased domestic bank lending occurred well after the beginning of the decline in trade balances and the increase in foreign bank lending. Rather, the process appears to have been the opposite. It was the rise in short-term bank inflows and the decline in developed country demand in the presence of liberalisation of domestic financial markets that led to the deterioration in the trade balance, which was then further aggravated by dollar appreciation and rapid domestic credit expansion. It is for this reason that the crisis was not a foreign exchange crisis caused by a payments imbalance, since there was no clear evidence that exchange rates were inappropriate. Reserves were extremely large,¹¹ external balances were moving in the right direction and official international agency assessments of country fundamentals suggested that the external positions were sustainable at existing exchange rates.

The Beginning of the Crisis

The crisis broke at the weakest link in the Asian economies, i.e. the recently liberalised and deregulated private domestic banking systems. Weakness in the financial sector in Indonesia was evidenced by its first private bank failure in 20 years in 1992, and the rescue of a major state bank in 1995 (Montgomery, 1997: 13). In Thailand, where the expansion of the banking sector had been the

¹¹ According to the IMF (1997: 64), emerging economies accumulated US\$575 billion in reserves between 1990 and 1996, representing 49 per cent of the total flows; US\$202.2 billion were to the Asian region, but only US\$76.4 billion were to Asia excluding India and China (Cf. IMF, 1997: 197-8). However, they are concentrated in China, Taiwan, Singapore and Hong Kong. Thailand's reserves increased by US\$27 billion, and Singapore's by US\$56 billion over the period.

most rapid,¹² the central bank had since 1996 been practising a policy of “forbearance” (frequently used by developed country central banks, in particular the Federal Reserve), that is, central banks lending to support banks in difficulty in the hope that they can be rescued without public notice and without creating market panic. Given the degree to which Thai banks and finance companies had been financed through foreign currency lending to its new offshore banking centre, this meant using foreign exchange reserves for its internal function of lender of last resort. A similar process appears to have been at work in Korea from the spring of 1996. However, in Korea, the first signs of difficulty were in a run of bankruptcies starting with Hanbo steel in January 1997. But, despite increasing information (for example, from international rating agencies) of difficulties in Asian banks, a Thai land development company failing to meet a foreign debt payment, and numerous bankruptcies in Korean corporations, foreign capital inflows into Asia continued unabated during the first half of 1997.

But the failure by the Bank of Thailand to arrange the rescue of the country’s largest finance company, Finance One, in the Spring of 1997 concentrated the attention of international lenders and the feared reversal of short-term lending started. The failure took on special importance because it occurred against the background of increased uncertainty in international capital markets concerning the evolution of international interest rate differentials. In the beginning of May 1997, the view that the Japanese economy was engaged in a full-fledged recovery gained increasing support (although there was virtually no hard evidence to support this belief) and there was a sharp appreciation of the yen and a sudden rise in Japanese short-term interest rates on expectations that the Bank of Japan would move quickly to raise its discount rate.¹³ As a result, funds that had been borrowed at low interest rates in Japan and Hong Kong, and invested at substantially higher rates in Asia, were quickly

¹² Bank assets as a percentage of GDP for three Southeast Asian countries, 1989-1994 (percentages)

Bank Assets/GDP	1989	1990	1991	1992	1993	1994
Indonesia	49.3	60.5	64.2	63.0	58.8	57.3
Malaysia	92.4	96.0	101.9	95.0	92.9	99.9
Thailand	72.7	79.2	82.2	85.0	94.6	109.5

Source: Montgomery, 1997, Table 1, p. 7.

¹³ The move was all the more important because it “was of a magnitude that market participants considered quite unlikely, even as late as 5 May. As the yen appreciated rapidly between 5 May and 9 May (the market) began to reflect a significant probability of large further appreciations” (IMF, November 1997: 19).

withdrawn and returned to Japan, supporting the appreciation of the yen and putting increasing pressure on Asian reserves and exchange rates.

The Thai financial crisis could not have avoided becoming an exchange rate crisis, given the degree to which foreign reserves had already been used to shore up banks through the “lender of last resort” function and the fact that the reserves were not nearly sufficient to meet the liquidation of the entire amount of foreign lending while the foreign balance was continuing to deteriorate. A domestic banking crisis, which could have been handled by the central bank through creation of domestic currency in a relatively closed capital market, became a foreign exchange crisis because of the open capital market and the size of foreign capital inflows into the Thai banking system through the BIBF. Since the Bank of Thailand could not print dollars, it could not act as lender of last resort to its own domestic banks’ exposure in US dollars and its use of its foreign exchange reserves to do so made it helpless to support the exchange rate.¹⁴

Thus, even though Thailand had a savings ratio of around 40 per cent, foreign exchange reserves that were three times the 1996 current account deficit, and import growth as well as domestic consumption were slowing, and a predominance of long-term capital inflows, the baht was allowed to float on 2 July and the IMF was called in at the end of the month to formulate a bail out.

A Financial Crisis of International Capital Market Failure

The crisis could thus be explained as a case of “market failure” of two different types. First, a failure of free, competitive international capital markets to produce the optimal allocation of capital.

¹⁴ Although it did operate actively in the forward market for baht, employing the technique of the bear squeeze (first employed in Berlin in the 19th century and by Poincaré in the famous stabilisation of the French franc, see Einzig, 1937) to try to support the exchange rate. The Bank bought baht from speculators for exchange at a future date at an exchange rate determined by the relative interest costs of lending baht for the period. At the future expiry date of the contract the speculator had to sell baht to the Bank at the previously agreed price. If the baht had devalued by the future date, then the speculator could purchase in the market the baht he had to sell to the bank at a lower dollar price than that he would receive, the difference representing speculative profit. In a bear squeeze the Bank makes it as difficult as possible for speculators to buy the baht that they have to deliver by restricting the banks’ sale of baht to speculators in the offshore markets. The speculators thus have to borrow the baht at extremely high rates (rates when as high as 1,300 per cent) to honour their contracts and take a loss. It is estimated (IMF, 1997b: 35) that speculators lost as much as \$1.5 billion in the bear squeeze applied by the Bank of Thailand through the beginning of July. The problem with such a policy is that the central bank has to have enough foreign exchange to meet the forward sales of baht coming due until speculation is stemmed.

Funds continued to flow to Asian financial institutions after it was clear that financial instability was widespread. In the words of Alan Greenspan: “In retrospect, it is clear that more investment monies flowed into these economies than could be profitably employed at modest risk” (Greenspan, 1997: 1-2). Second, a failure of privatised free-market “banking systems, [that] were not up to the task of effectively absorbing and channelling to productive use large foreign capital inflows as well as the large amount of domestic savings these economies”.... “Such weakness led to the misallocation of resources” (Hormats, 1997: 1). On the other hand, Stanley Fischer notes that “the maintenance of pegged exchange rate regimes for too long... encouraged external borrowing and led to excessive exposure to foreign exchange risk” (Fischer, 1998: 2). — which suggests that international bankers and businessmen are incapable of identifying exchange rate misalignments.¹⁵

The rapid deterioration in conditions in Thailand — especially the change in exchange rate policy, led to substantial losses for foreign investors who had presumed that the probability of exchange depreciation was negligible — led to a reassessment of investors’ expectations for exchange rate adjusted returns on their investments in the rest of the region. Speculators, having succeeded in Thailand, started to look for other possible candidates for depreciation.

The balance of payments deficit in the Philippines had been increasing for some years and attention quickly shifted to the exchange rate of the peso. The central bank responded with an increase in the overnight interest rate from 15 per cent to 24 per cent and the discount rate to 32 per cent, but under pressure, the peso was allowed to float within a fluctuation band on 11 July. Once the peso had fallen, it was clear that every country in the region was a potential target. Malaysia had the next worst balance of payments position, and its foreign borrowing from banks had been increasing rapidly. Although steps had already been taken in March 1997 to reduce exposure of financial institutions to real estate and financial investments, Malaysia quickly followed the Philippines

¹⁵ As presumably are part of the IMF Research Department, cf. Ostrey, op.cit.,1997, quoted above. See also IMF (1997b: 69): “Among currencies not affected by the contagion was the Korean won, even though there were many parallels in economic circumstance with Thailand... observers have noted that this was perhaps because Korea’s debt levels were lower, because the substantial depreciation of the won during the last year and a half had left it at a more appropriate level, or because the recent appreciations of the yen would have greater benefits for Korea than its neighbours. While these factors may have played a role, it should be noted that unlike... the Asian economies that were attacked, Korea restricts won credit to foreign residents, and the foreign exchange markets, particularly the foreign exchange market, are underdeveloped. Simply put, this makes it difficult for foreign investors to speculate against the won.

and allowed the ringgit to float on 14 July. Singapore followed on the 17 July, allowing a depreciation of the Singapore dollar, and although Indonesia had also tightened monetary policy in an attempt to support its currency, once Malaysia and Singapore had given up the dollar peg, Indonesia introduced enlarged fluctuation bands on 21 July. Thus, in the space of less than three weeks, Thailand, Philippines, Malaysia, Singapore and Indonesia gave up exchange rates that had been stable against the dollar for extended periods.

Had it been a typical Bretton Woods balance of payments crisis, it should have been over at this point; tight monetary and fiscal policy would have reduced imports and increased the demand for domestic assets, while the currency depreciations should have increased exports. The balance of falling imports, rising exports and increased demand for domestic assets due to high interest rates and expectation of subsequent appreciation should have brought equilibrium to the foreign currency markets and, following the Mexican example, after a period of high inflation, growth and currency stability should have resumed. With an average of around 15 per cent of GDP in bad loans, it would have ranked on the high side of recent financial crises, but not out of the range of Mexico and Venezuela, and much lower than Chile. This was clearly the expectation of the IMF and most international observers. However, the move to floating exchange rates did not bring stability, but instead brought increased pressure. The reason, as noted above, was that this was not a typical balance of payments crisis, but a financial crisis.

Contagion and Capital Flows

As exchange rates continued to fall, it became clear that what had been a relatively stable process of adjusting trading patterns without sectoral adjustment crises would be permanently disrupted. As a result, Taiwan, even though it had a massive trade surplus, massive foreign exchange reserves, a budget surplus, and no visible speculative pressure on its exchange rate decided to recover its relative competitive position in the region and devalued its currency by 10 per cent on 17 October. This quickly extended the crisis from Southeast Asia to Northeast Asia and the first-tier NICs. It suggested difficulty in even the strongest of the Asian economies. Given the pivotal role of Hong Kong between Taiwan and China and its recent change to special administrative region status under

Chinese control, the result of the devaluation in Taiwan was to raise the possibility of a devaluation of the Hong Kong dollar, or even the Chinese renminbi.¹⁶

Given that the Hong Kong dollar was one of the few currencies in the region showing clear evidence of overvaluation and a deteriorating external balance, there was an instant flight of investors. The fact that the Special Province operated a Currency Board, in which domestic currency is 100 per cent backed by foreign exchange reserves, may have contributed to the panic. An investor in Hong Kong now ran a risk of a depreciation of the exchange rate or of a collapse of the prices of his financial assets, or both. The depreciation of virtually every other currency in the region suggested that there would be pressure on competitiveness and thus on the exchange rate. But, the operation of the Currency Board meant that even if the defence of the exchange rate were successful, this in itself would have negative impact on equity prices, for even if the Board did not run out of US dollars, by selling dollars against HK dollars, it would sharply reduce the domestic money supply, producing a sharp increase in interest rates, and internal deflation, which would certainly create difficulty for domestic banks and property companies that were primarily involved in real estate lending and other financial ventures. Thus, even if the exchange rate held, in doing so, it would certainly bring about a collapse in the stock market. The obvious, safe course of action for a foreign investor facing this choice was to sell both the Hong Kong market and the Hong Kong dollar. The market was already under pressure in August and September, but fell 6 per cent on 22 October and another 10 per cent on 23 October, after the Taiwanese depreciation. As a result of sales of Hong Kong dollars, overnight interest rates rose from 7 per cent to 300 per cent and suggested that the domestic costs of exchange rate stability would be very large. Since a devaluation in Hong Kong would certainly have meant a devaluation of the Chinese currency, this would have ushered in a series of beggar-my-neighbour devaluations reminiscent of the currency instability of the 1920s and 1930s which led to the Great Depression. Faced with this prospect, the New York financial markets led the rest of the world's developed equity markets in a record absolute collapse on 27 October 1997.

Despite the bankruptcies of large manufacturing conglomerates (*chaebols*) and increasing concern for the Korean banks that had lent to these firms, given that many of the *chaebols* carried

¹⁶ Fred Bergsten (1997) has suggested that the Taiwanese move, which came on the eve of Jiang Zemin's visit to the US, was made in order to embarrass China.

leverage ratios in excess of 500 per cent (i.e. borrowed funds were five times owner's equity capital), markets continued to treat these as purely internal difficulties. Korean bank credit ratings were reduced in August, but it was only after the global equity market collapses at the end of October that markets focussed on the viability of the Korean producers in conditions of global depression. Given the exchange rate changes in the region, the Korean currency was now clearly overvalued, its production was heavily concentrated in semiconductors (whose price had fallen from around US\$50 per chip to US\$5 in less than two years), and it was attempting to further expand in the international automobile market where excess capacity dominated. Finally, its current account had been deteriorating rapidly.

This would have been enough to raise the concerns of international investors, but at the same time, a series of Japanese bank bankruptcies occurred. Since the largest proportion of lending to Korea was from Japan, it was feared that they would recall their loans to Korean conglomerates, forcing more bankruptcies in Korea. The country thus experienced the same withdrawal of foreign lending which had been occurring in the rest of the Asian region since the summer.

In November, it became clear that the Bank of Korea had for some time been using its foreign exchange reserves for lender of last resort lending to domestic banks unable to roll over their foreign borrowing. It also emerged that the level of short-term foreign lending was much higher than had been presumed. Thus, with around US\$6 billion in foreign reserves and around US\$100 billion of lending to be repaid to foreign lenders, the Bank of Korea allowed the won to float, and it went into free fall, much as the other currencies in the region, and the IMF was called in to provide support.

Given that Japanese banks were the largest lenders in the region, and had substantial exposure to increasingly shaky Korean companies, the collapse of the won created panic in Japan and the Bank of Japan had to inject some US\$23 billion into the banking system on 29 November to keep the inter-bank money market from collapsing as Japanese banks withdrew credit, even from other Japanese banks. The rise in the yen which had started in the Spring was thus reversed and it started to weaken against the dollar during November 1997.

Table 1 External Financing of Korea, Indonesia, Malaysia, Philippines and Thailand

Five Asian Economies	1994	1995	1996	1997 ^a	1998 ^b
Current Account Balance	-24.6	-41.3	-54.9	-26.0	17.6
Net External Financing	47.4	80.9	92.8	15.2	15.2
– Direct Equity Flows	4.7	4.9	7.0	7.2	9.8
– Portfolio Flows	7.6	10.6	12.1	-11.6	-1.9
– Commercial Bank Lending	24.0	49.5	55.5	-21.3	-14.1
– Non-Bank Private Lending	4.2	12.4	18.4	13.7	-3.3
Net Official Flows	7.0	3.6	-0.2	27.2	24.6
Reserves (- = increase)	-5.4	-13.7	-18.3	22.7	-27.1

Notes: ^a = estimate, ^b = forecast

Source: Institute of International Finance, 29, January 1998: 2.

This closed the first phase of the crisis, with Thailand, Indonesia and Korea accepting IMF conditional lending, and a number of other countries such as Malaysia, Hong Kong and Taiwan introducing similar policies independently of any international commitment of funds. Table 1 gives evidence of why these measures have been unable to reintroduce currency stability in the region. The withdrawal of commercial bank lending, plus current account financing and the sale of portfolio equity total US \$58.9 billion, over two-thirds of the accumulation of reserves over the period 1990-96 of US\$76.2 billion. In one year (in fact, since the outflows only started in earnest in July, the relevant period is closer to six months), the region was called upon to reimburse lending and make current payments equal to the accumulated reserves of the previous seven years. This is equivalent to a massive “bank run” on the region, without any lender of last resort. Just as no bank can ever repay all its deposits at sight, no country which is open to international capital flows can repay virtually all of its short-term borrowing instantaneously without a collapse in the exchange rate and substantial disruption of the real economy. It is for this reason that the basic problem in the region was not mistaken domestic policy, or fundamental disequilibrium, nor even lack of transparency in the banking sector, although there is no question that weakness in the banking sectors of many of the countries aggravated the crisis, but was primarily caused by the reversal of the excessively rapid rise in capital inflows and the fall in global demand.

Indeed, these are simply two sides of the same coin, excess saving on the part of the

developing world outside the US, visible in the form of capital flows into the region, meant that domestic investment was increasingly substituted for export sales. This may be called an excess savings crisis. Or an over-investment crisis, which, in a way similar to Japan has caused massive over-investment and over-capacity which will produce downward pressure on the prices of traded goods and thus deterioration in the terms of trade of these countries. Indeed, it is ironic to recall that at the beginning of the 1990s, most official institutions were announcing that it would be a decade of savings shortage as the demand for capital by developing countries outstripped the supply of savings, and that high real interest rates would be the natural result. Less than half-way through the decade, there is instead massive excess capacity, a risk of a global glut of production. Yet, high real interest rates seem still to be considered the answer to the crisis.

Table 2: Asian Countries: Investment as Percentage of GDP, 1986-1995

	<i>1991-5</i>	<i>1986-90</i>
Singapore	34.1	32.4
Malaysia	39.1	23.4
Indonesia	27.2	26.3
Thailand	41.1	33.0
Philippines	22.2	19.0
Korea	37.4	31.9
China	35.3	27.8

Source: Author's calculations based on data from Asian Development Bank: Key Indicators of Developing Asian and Pacific Countries.

Stage Two: The Cure is Worse than the Disease

The second stage of the crisis came in the policy response, largely based on the conditional lending by the IMF. The IMF also mistook the crisis for traditional balance of payments crisis and applied the same measures that they had used with modest success in the Tequila crisis. These involved increasing interest rates to restore confidence in the currency, tightening government budgets to slow demand for imports, control of monetary aggregates to keep the rate of inflation from eroding the benefits to export competitiveness of devaluation and reform of the banking system. The idea was basically to put household and bank balance sheets back in balance and to allow firms to create an export surplus. However, as noted above, the collapse of exchange rates had not been

due to banks financing excess demand for imported consumption goods, but rather, financing imports of capital goods by firms. It was the firms' balance sheets that were generally at risk. And the IMF conditions only made their positions worse. First, the flight of foreign capital meant that they had to replace their short-term financing, but at sharply higher rates from domestic banks. Second, with falling global demand, firms became increasingly dependent on domestic demand, but fiscal policy was ensuring that demand would be falling. Thus, firms had rising short-term financing costs and falling income flows to meet them. Third, firms that had borrowed abroad had to repay foreign lenders. Given the long period of relatively stable exchange rates, much of this borrowing had not been hedged, and thus had to be repaid in foreign currency. But, export receipts were falling and the value in domestic currency was rising daily. All three of these factors meant that firms went from being in a position of illiquidity, i.e. of not being able to convert their assets into foreign currency quickly enough, to positions of insolvency, i.e. of having the value of their assets fall below their liabilities. That is, they were technically bankrupt. At the same time, domestic banks that had acted as intermediaries, borrowing foreign currency to lend to domestic firms found themselves in the same position. But, their position was aggravated by the fact that if they charged higher interest rates, this simply made it more likely that their clients would go bankrupt and be unable to repay anything. The dispute with the IMF was thus over the impact of interest rate policy. The IMF wanted rates set at levels that were high enough to generate demand for domestic currency, while the firms and banks and most affected Asian governments wanted interest rates set low enough to allow firms and banks to make their payment commitments.

Given the fact that the only way that firms and banks could escape bankruptcy was by repaying their foreign currency loans as fast as possible, this set in train what Hyman Minsky, following Irving Fisher, has called a debt deflation process. In order to meet their current commitments, a firm is forced to sell assets, inventory, current output, anything that will prevent it from having to close its books as a bankrupt. But this is a self-defeating process, for as they increase supply, they drive down the price of the assets they are trying to sell, reducing their ability to liquidate their assets for a value that will cover their commitments. For Asian firms, the proceeds of the sales reduced domestic asset prices, while their demand for foreign currency drove up its price, thus driving the terms of trade against them. In such conditions, there is no interest rate high enough to stop the sale

of domestic investments and the sale of the domestic currency. Indeed, high interest rates only make the process worse. As firms and banks scrambled to save themselves from bankruptcy, they also drove down the value of the currency.

Indeed, the IMF seems incapable of accepting the idea that higher interest rates might increase the demand for foreign currency by more than it increases supply in a period of crisis and thus aggravate conditions. For example, Camdessus (1998: 2) notes that “the key lesson of the ‘tequila crisis’ [was] a timely and forceful tightening of interest rates... to make it more attractive to hold domestic currency.” Fischer (1998: 4) uses virtually identical language. But, they both refer to examples of the successful use of high interest rates to *defend* a fixed exchange rate, not to the success of the policy in conditions *after* the devaluation had already taken place.¹⁷ In this regard it is interesting to note that BIS (1997: 108) refers to “the increases in (or continued high) real interest rates... in Indonesia and Thailand... and in Malaysia” that had been put in place already during 1996 and early 1997.

After a substantial devaluation, for a company with foreign exposure, a higher interest ... rate only makes bankruptcy more probable. For a foreign lender, seeking to recover funds there is no increase in interest rates that can offset the bankruptcy of a creditor. Again, it is interesting to note that BIS (1997: 111) refers to the successful experience of both the US and Sweden of using low interest rate policies to resolve collapsing asset and real estate prices.

At the same time, the breakdown of the financial system made it impossible for firms to increase production or exports, so that while trade balances improved sharply, this was primarily the result of massive falls in imports, rather than increased exports. Thailand and Korea both showed surpluses by the end of 1997, but this had little positive impact on exchange rates. For the month of January 1998, imports in Korea fell at a 40 per cent annual rate, and in Thailand at a 30 per cent annual rate.

Since banks were also part of this process, the equivalent for a bank of the distress sale of assets is to call in loans, or to refuse to make loans. The result was that short-term inter-bank and commercial paper markets disappeared in many countries, and firms were unable to get financing for

¹⁷ Although the IMF has also criticised the Asian countries for the stability of their exchange rates, cf. Fischer (1998).

imports required for production, or even to obtain credit to finance exports. Further, the decision to reform the banking system by requiring rapid bank closures created widespread distrust in the remaining banks, and in many economies, including Hong Kong, there were large scale withdrawals of deposits from the banks, pushing even solid banks to difficulty and reducing even further their ability to lend to support production. Thus, the policies introduced created conditions of full-scale debt deflation in which banks and firms were forced to sell assets to make payments, driving down prices in both stock markets and in the foreign exchange markets. Thus, the second stage of the crisis involved the sustained meltdown of asset markets throughout December 1997 and January 1998. By the time the IMF had been convinced to introduce additional freedom (the conditions on all three lending agreements were reviewed and rewritten with more lenient conditions on fiscal positions and interest rates in the beginning of 1998), conditions had deteriorated to the point that it is unlikely that there will be positive growth in the region in 1998 and there is some question about 1999.

This phase of collapsing production and income in Asia is reflected in the sharp falls that have occurred in primary commodity prices and oil prices. Thus, the greatest negative impact from the crisis outside Asia has been in other developing countries and in the petroleum producing countries. It would not be surprising if a number of the former should have to apply to the IMF for balance of payments support as a result of the Asian crisis.

Clearly, a more reasoned response to the crisis would have been to attempt to slow the withdrawal of foreign lending and to ease the conditions of payment. Low, rather than high interest rates would have been indicated, along with policies to stimulate growth. But, most important would have been rapid policies to reschedule foreign loans to stop the mad rush to sell assets and buy foreign currency. This has now started to occur in the case of Korea, which has reached agreement with international bank lenders to roll over the short term debt owed by Korean banks.

The first step in the third phase of the crisis will then be to restore stability to asset markets, which means having both buyers and sellers, borrowers and lenders. This will allow producers to increase exports and the process of adjustment to begin. However, much of the productive capacity will in fact be closed by bankruptcy. And the fall in prices will be less than the change in exchange rates due to the fact that most Asian exports are import-intensive, so that import costs will be rising in dollar terms, and domestic costs will also be rising as the impact of depreciation on the domestic

price level works through to domestic costs. It is also likely that capital flows will also return, through foreign purchases of domestic productive capacity (to operate or to close, as occurred in East Germany). It is for this reason that it is difficult to determine appropriate exchange rates. At current exchange rates, this process should be extremely rapid, and will certainly bring calls from developed countries, swamped with imports, for protection measures. It would be ironic if the liberalisation of capital flows, which the IMF has now declared as its major objective, should lead to a deterioration in the free trade in goods and services, which was to be its original objective. The crisis suggests that the two are interdependent, and perhaps cannot be achieved simultaneously. Given that this is precisely the scenario which was the prelude to the global crisis of the 1930s, the collapse of the global capital markets in response to the crisis was simply playing according to the script. It remains to be seen if policy can be crafted so as to avoid a repeat of the 1930s.

References

- Bergsten, Fred (1997) "The Asian Monetary Crisis: Proposed Remedies," Testimony to the US House of Representative Committee on Banking and Financial Services, 13 November.
- Bank for International Settlements (1995), *International Banking and Financial Market Developments*, Basle, May.
- (1997), *67th Annual Report*, Basle, 9 June.
- (1998), *The Transmission of Monetary Policy in Emerging Market Economies*, Basle, January.
- Camdessus, Michel (1998) "The IMF and its Programs in Asia," Remarks by the Managing Director of the IMF at the Council on Foreign Relations, New York, 6 February.
- Einzig, Paul (1937) *The Theory of Forward Exchange*, London: Macmillan.
- Fischer, Stanley (1998) "The Asian Crisis: A View from the IMF", address by the First Deputy Managing Director of the IMF to the Midwinter Conference of the Bankers' Association for Foreign Trade, Washington, D.C., 22 January.
- Greenspan, Alan (1997) "Statement Before the U.S. House of Representatives Committee on Banking and Financial Services", Washington D.C., 13 November.
- Hormats, Robert D. (1997) "Testimony Before the U.S. House of Representatives Committee on Banking and Financial Services", Washington D.C., 13 November.
- Institute of International Finance (1998) "Capital Flows to Emerging Market Economies" Washington D.C., 29 January.
- International Monetary Fund (1997a) *World Economic Outlook*, Washington D.C., October.
- (1997b) *International Capital Markets*, Washington, D.C., November.
- Johnson, R. Barry, Salim M. Darbar, and Claudia Echeverria (1997) "Sequencing Capital Account Liberalization: Lessons from the Experiences in Chile, Indonesia, Korea and Thailand," IMF Working Paper No. 97/157, November.
- Montgomery, John (1997) "The Indonesian Financial System: Its Contribution to Economic Performance and Key Policy Issues," IMF Working Paper 97/45, Washington D.C.: International Monetary Fund, April.

Ostrey, Jonathan D. (1997) "Current Account Imbalances in ASEAN Countries: Are They A Problem?" IMF Working Paper No. 97/51, Washington D.C.: International Monetary Fund, April.

Turner, Anthony G. and Stephen S. Golub (1997) "Towards a System of Multilateral Unit Labor Cost-Based Competitiveness Indicators for Advanced, Developing and Transition Countries," IMF Working Paper No. 97/151, Washington D.C.: International Monetary Fund, November.

UNCTAD (1996), *Trade and Development Report*, Geneva: United Nations.

——— (1997) *Trade and Development Report*, Geneva: United Nations.