Asian economic and financial crises: causes, ramifications and lessons

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Abbreviations

EFM emergency financing mechanism
EMS European Monetary System
ERM exchange rate mechanism
FDI foreign direct investment
IMF International Monetary Fund
NIEs newly industrialised economies
PRC Peoples' Republic of China
REER real effective exchange rate
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Onset of the crises

Financial globalisation during the 1990s impinged upon world savings and investment flows, macroeconomic developments, challenges confronting policy makers, international investors and financial market regulators. Experiences of the last two decades reveal that international financial markets are subject to unpredictable swings, costly financial crises and contagions. Examples abound. Abrupt declines in asset prices were notable in the equity market decline of 1987, real estate values plummeted in the late 1980s and early 1990s, and bond markets weakened in 1994. Other examples include the Latin American debt crises of the 1980s, and major bouts of volatility in foreign exchange markets. The latter is demonstrated by the realignments of major currencies in the last quarter of 1985, the speculative attack on the European exchange rate mechanism (ERM) in 1992, the sharp movements in the US dollar-yen exchange rate in 1995, and steep exchange rate depreciations and the associated financial collapse of financial systems in the latter half of 1996. This paper focuses on the last event.

On 2 July 1997, the Thai monetary authorities withdrew from their dollar dominated currency peg. The floating of the Thai baht signalled a different economic phase for the Asian economies. Thus far these economies were widely considered to be over-achievers and development paragons; soon they became the under-achieving pariahs of the global economy. The crisis-stricken Asian economies recorded a sharp drop in living standards, together with rising unemployment and social dislocation. Before the onset of the crises these economies were responsible for spurring the GDP growth rate of the global economy, but after the onset they were being blamed not only for being an appreciable drag on the global economy but also having the potential to spark a global recession. When the crisis spilled over to other vulnerable emerging markets, namely Russia and Brazil (in that order), these charges began to ring true, although the danger soon appeared to recede. In a short time span Asian economies turned from favourite destinations for foreign investors to the most unlikely places. Their ability to sustain high GDP growth rates in the future was also called into question.

This paper attempts to cover principal aspects of these multifaceted financial and currency crises. It explores contributing and causal factors responsible for the emergence of a crisis scenario, and focuses on the course of events that sparked the crisis in Thailand, from where it spread to other Asian economies. Whether the crisis was caused by weak fundamentals or by contagion is
analysed. The fast unfolding of the crisis is examined in detail, as is the pattern of market failure in these kind of financial crises. The lessons for bankers, central banking authorities and macroeconomic policy makers are also discussed.

The crises led to steep currency depreciations which roiled financial markets, destroying wealth and breaking banks and financial institutions. The relevance and adequacy of international financial architecture has come under a careful scrutiny. Scholars, central bankers and multilateral institutions wonder whether the time for a Bretton Woods II has arrived. The Asian crises have generated an engaging debate on fundamental issues related to macroeconomics, banking and finance, capital markets, central banking, regulatory norms and supervision, and economic policy making in general. The fact that rapid global mobility of capital can spawn both prosperity and crises has been realised.

There is a basic difference between the current Asian crises and the crisis that occurred during the 1980s. The two horsemen of apocalypse in Asia essentially were, liberalisation of domestic financial markets leading to a progressively integrating global banking and financial system and, financial sector fragilities. These were the two most distinctive and disruptive features of the Asian crises. Conventional fiscal imbalances were present, but relatively small. Malaysia and Thailand were the only exceptions in this regard, although they were running current account deficits. There was evidence of significant real exchange rate misalignment in some Asian economies.

Unlike the Latin American crisis of 1982–83, the Asian crises had their origins in the private sector; they were a case of market failure. Cronyism, non-transparency, poor risk analysis and corporate governance were also considered the villains of the piece. Together these factors contributed to market failure, which could be labeled the third horseman of apocalypse. In several analyses excessive emphasis was laid on these factors, making them deterrents in the thought process. Instead of stimulating it, these blemishes foreclosed thinking, particularly regarding market failure. Crisis could have resulted from under-regulated and over-liquid global financial markets. Whether it was market failure that was responsible for driving the Asian economies overboard or excessive liquidity is yet to be determined. A clear division in opinion exists. Intuitively, the latter seems more plausible. More capital resources flowed into these economies than could be employed at a moderate risk. The Asian crises appear to be cases of failure of free financial markets to produce an optimal global allocation of capital.

Once the crisis started in Thailand, it continued to broaden as well as deepen with astonishing rapidity. In terms of geographical coverage, Thailand was followed by the Philippines and Malaysia, which in turn were followed by Indonesia and Korea. Singapore, Hong Kong and Taiwan were also affected, but to a much lesser extent than the five aforementioned Asian economies. The crises deepened in terms of plunging currency values, sharply falling GDP growth rates and steeply rising interest rates. With these plummeted investor sentiment toward
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The contributing and causal factors

1997 was a year of economic slowdown in Asia. Average GDP growth had declined from 8.2 per cent in 1995 to 7.5 per cent in 1996 and further to 6.1 per cent in 1997. Likewise, the growth of exports had decelerated from 19.2 per cent and 21.6 per cent during 1994 and 1995, respectively, to 4.3 per cent and 6.7 per cent in 1996 and 1997, respectively. A global slump in electronics demand had started in 1996 and continued in 1997 and 1998. Since electronics was and continues to be one of the most important export sectors, this slump adversely affected Asian exports. Between April 1995 and April 1997, the yen depreciated by 60 per cent against the dollar, seriously eroding the price competitiveness of these economies in world markets. Since many Asian currencies were closely linked to the dollar, their currencies continued to appreciate with the dollar. By 1997, the dollar was seriously overvalued as were the currencies of those Asian economies that had continued to appreciate with it.

Asian economies had attracted heavy capital inflows during the 1990s, which had contributed to currency appreciations. To maintain the competitiveness of their exports, these economies were struggling to keep their real effective exchange rate (REER) from appreciating. In the process, they created some policy distortions. For instance, these policies widened interest rate differentials, which helped to fuel the crises that followed. The heavy capital flows were largely in the form of short-term debts denominated in the currency of the lending countries, particularly the yen and the dollar. When the Asian currencies went into a nosedive, this became a critical part of the problem of the Asian economies. The domestic currency values of their external debt soared. Furthermore, Asian firms failed to generate enough local currency to enable them to convert it to foreign exchange resources to meet their debt repayment requirements.

Hindsight reveals that there were five principal causal factors. First, the past economic success of these Asian countries made them attractive locations for foreign investment. Second, various elements in their external economic environment that were initially favourable subsequently turned sour in several respects in 1996–97. Third, there were limitations and inconsistencies in domestic macroeconomic and exchange rate policies. Fourth, they had fragile and vulnerable financial sectors (IMF 1997), including institutional weaknesses. Fifth, structural weaknesses and flaws in corporate governance, including nepotism, cronyism and corruption, were rife. These five are considered principal causes but they do not fully explain the onset of the crisis. In addition, the vital intangible, market sentiment, played a decisive role in bringing the crisis to a head and in creating the contagion effect. It also needs to be emphasised that despite

the emerging market economies of Asia. Investor or market sentiment is a vitally important intangible, on which international financial flows depend in an important way. Consequently, capital market flows were sharply curtailed and the stock markets fell dramatically. The dimensions of currency and stock market declines are reported below.
the large current account deficits, the macroeconomic situation in these economies was not unsound in 1997. The locus of the crisis was the banking sector due to undisciplined expansion and diversification in the domestic financial markets financed by short term private borrowings.

Before these crisis-stricken economies nosedived, they had a justifiable global image of being highly successful emerging market economies in terms of GDP growth, export expansion and rising living standards. With generally prudent fiscal policies and high household saving rates, these economies epitomised pragmatism, clairvoyance and entrepreneurial spirit. Over the 1992–95 period, the average GDP growth rate of developing Asian economies was 9 per cent, which was above their historical average. Although with double-digit GDP growth rates the Peoples’ Republic of China (PRC) formed the single largest component of this regional growth, other economies like Indonesia, Malaysia and Thailand all recorded average growth of 7 per cent or higher during the period under consideration. The Philippines did not display comparable performance until mid 1993, after which time its growth rate improved significantly. Since the global capital market also perceived the Asian economies as high performers, net capital inflows to these economies during the early and mid 1990s were high.

The performance of the four newly industrialised economies1 (NIEs) was equally impressive during this period with some of these economies posting growth rates as high as 10 per cent (Singapore in 1993–94) and 9 per cent (Korea in 1994–95). These economies pursued outward-oriented policies and were successful exporters, which in turn made them attractive for foreign investment and private capital inflows. In general, disciplined macroeconomic policies were followed. Inflation rates were moderate and macroeconomic indicators suggested economic stability. Fiscal imbalances were conspicuous by their absence. This is the bright side of the coin. By mid 1997 the macroeconomic scenario had undergone considerable transformation. Certainly, country circumstances varied, but some pernicious features had become obvious on the macroeconomic scenario in many Asian economies. Thailand suffered from large external deficits (8.5 per cent of GDP in 1996) which increased short-term foreign indebtedness. The Indonesian economy suffered from worrisome signs of overheating, the inflation rate was high and the trade surplus suffered a sharp decline. Policy response to these developments was timid and inadequate. The current account deficit in Malaysia widened and there was a massive surge in public investment related to prestigious infrastructure projects. The economy was overheated, although the consumer price index did not show it because several key prices were controlled. High interest rates at the end of 1996 led to a surge in short term capital inflows. Korea also experienced a dramatic widening of its current account deficit in 1996, leading to accumulation of short term debt. The 1996 growth rate of industrial production was half that of 1995, and the export growth rate decelerated dramatically. The average profitability of the chaebol, characterised by very high debt-equity ratios, was low and falling. The financial conditions of the chaebol and their creditors banks were unsteady, raising the
possibility of widespread bankruptcies. In contrast, the Philippines enjoyed healthy macroeconomic conditions. Years of structural and macroeconomic reforms under the supervision of the International Monetary Fund (IMF) had put its economy on a sustainable growth path, albeit lower than some of its neighbours. However, the principal problems of the economy were a large current account deficit, a significantly overvalued currency and a lending boom, which led to unsound investments. Thus on the eve of the outbreak of the crisis, macroeconomic indicators in these economies were not in the pink of health.

A great deal of scholarly time has been spent explaining the origins of the Asian crises. Some of the more noteworthy works include Corsetti et al. 1998, Feldstein 1998, IMF 1997, Krugman 1998, Radelet and Sachs 1998a and 1998b, Sachs et al. 1996. Since the crises are multifaceted, the foci of these studies vary. Although they present competing hypotheses, these studies concur on one or more of the four causal factors outlined below.

In absolute terms as well as relative to GDP, net private capital flows to Asia began to rise after 1987, although the pace of acceleration rose in the 1990s. They soared from less than $10 billion in 1986 to $19.2 billion in 1988 and to $49.3 billion in 1992. By 1996, they had reached $136 billion, which was 5.2 per cent of the GDP of the Asian economies. Although a good deal of global capital continued to flow into the Asian economies, its absorption proved to be a serious challenge. Prudent intermediation through financial systems was a difficult task because these systems were not well developed. The other difficult issue was the potential variability of the inflows, which could create problems for macroeconomic policy makers as well as for financial systems. In this regard, managing short term inflows was particularly problematic. After the onset of the crises, the scale of the difficulties that arose in individual economies depended upon macroeconomic policies and the soundness of the financial systems of the economy. Since in the PRC and Vietnam, foreign direct investment (FDI) flows dominated net private flows, there was little cause for concern. Conversely, there were substantial short-term inflows in Indonesia, Korea, Malaysia and the Philippines. Their level was dangerously high in Thailand, amounting to 7 to 10 per cent of GDP over the period 1994–96. An overwhelmingly large proportion of these short-term capital flows came from European and Japanese banks (IMF 1997). Since the financial systems were weak, credit analysis was poor, prudential and supervision norms were highly inadequate, and consequently the quality of investment suffered.

The other factor that contributed to a rapid increase in private capital flows to Asian economies during the early and mid 1990s was the decline in asset yields in the industrial economies. Relatively weaker GDP growth in many industrial economies during this period had led to accommodative monetary policies and low interest rates. Declining asset yields in industrial countries made emerging markets in general, and Asian economies in particular, an increasingly attractive investment proposition. This was reflected in a sharp narrowing of yield spreads for the Asian economies, indicating an increased preference among asset holders for investment in these
Asian economic and financial crises, Dilip K. Das, EA99-4  8

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As stated above, macroeconomic and exchange rate policy management in the Asian economies, which had served them well in the past, proved to be detrimental in the changing external circumstances. High and increasing current account deficits in several economies indicated demand pressures. There were clear signals of asset price inflation in several Asian economies, particularly in real estate and equity markets. In addition, the growth rate of bank credit had accelerated in many Asian economies after 1992. It was considered excessive by any standard. These economies were the beneficiaries of large capital inflows, a good part of which went to the banking and financial sectors, and then on to the industrial, real estate and equity markets. This inflated foreign liabilities of commercial banks in the Asian economies. Although policy instruments are available, it is always difficult to handle the complex and interrelated problems of large capital inflows, over-heating and excessive credit growth.

Fragilities within the financial sector were the most serious causal factor behind the Asian crises. They made the economies vulnerable to adverse external and domestic developments. Due to a lack of transparency, the extent of problems was not clear in the beginning. However, it became obvious as events unfolded that inadequacies in regulation and supervision, and lack of experience in pricing and managing of risk among financial institutions were the two major weaknesses that led to the crises. Others included a lack of commercial orientation and poor corporate governance. Thus, whether it was market failure or cronyism, it is fair to say that the former was followed by the latter in contributing to the factors responsible for the crises.

The Asian economies were liberalising their financial markets as well as capital accounts during the 1990s, which intensified competitive pressures. Under these circumstances it was easy to lend imprudently. The road between liberalisation of weak financial systems on the one hand and poor quality investment and excessive risk on the other, is a short one. Liberalisation
intensifies competition in the financial sector and removes a cushion protecting intermediaries from the consequences of bad loans and ill-conceived management practices. However, it needs to be clarified that it is not the financial liberalisation that is the root cause of the problem but the inadequacy of prudential supervision and regulation, whose consequences are magnified by liberalisation (Eichengree and Mussa 1998). Poor decision-making resulted in an excessive build up of risky forms of leverage on balance sheets of financial institutions. When these economies slowed down and their exports declined over the 1996–97 period, asset quality further deteriorated. As events unfolded, credit tightened, asset prices plunged and currencies depreciated. Banks and businesses with uncovered foreign currency liabilities came under pressure. Financial systems soon accumulated a large proportion of non-performing assets and questions began to be raised about their solvency and liquidity. Investors’ confidence in Asian economies plummeted and capital flight began.

In many Asian economies—for example, Korea—the industrial structure was heavily influenced by government intervention and a good deal of credit was directed by the government. Consequently, there was little market discipline which in turn resulted in unproductive and excessive investment. In some cases—for example, Indonesia—trade restrictions, import monopolies and regulations impeded economic efficiency and retarded competitiveness. This policy environment adversely affected the quality and productivity of investment. In the case of Thailand, non-economic factors such as the political disarray of 1996–97, worsened a bad situation. They obstructed the implementation of necessary reform measures hence permitting the deterioration of the domestic economic and financial environment. Other non-economic factors were the problems of public and corporate governance, which were endemic in many Asian economies. The power of special interest groups often appeared to have a considerable influence on the allocation of resources.

**The trigger and the domino effect**

In Thailand, the current account deficit rose most rapidly, reaching 5.6 per cent of the GDP in 1994, 8.0 per cent in 1995 and 8.5 per cent in 1996. The large current account deficit managed to create an ever-growing asset price bubble. In addition, the dollar-linked exchange rate system encouraged the private sector to borrow massive amounts in foreign currencies without hedging. A good deal of these borrowings were short term. Since in the mid 1990s, the property market was considered a high-return (about 20 per cent) market, a substantial part of foreign currency loans went into financing the property boom, which resulted in over-construction. In 1996, as noted above, the growth of Asian exports decelerated. Thai exports were no exception, actually contracting by 1.3 per cent. This performance was very poor in comparison to the 25.1 per cent growth of 1995. At the same time, real estate prices stagnated and the excess supply became a disturbing reality. In early 1997, this created cash-flow difficulties for finance companies that had
made heavy investments in real estate. Not visualising the depth of the malaise, the government attempted financial bail outs, which only added to the supply of capital in the financial markets and readied the situation for an attack on the baht peg.

Since the international financial press was well aware of these developments in Thailand, investor confidence plummeted and equity investors were the first to withdraw, causing a 30 per cent decline in the Bangkok stock market between February and December 1997. At this point foreign investors knew that the exchange rate was misaligned and that a correction was overdue. Bond issues and syndicated loans nearly stopped and fund withdrawal continued. The baht came under repeated speculative attacks and the central bank defended it, in the process losing its precious foreign exchange reserves. Investors’ confidence plummeted further, resulting in a flight of global capital. Eventually, on 2 July 1997, market forces won and the baht-dollar link was abandoned. The financial and currency crisis in Asia had begun (World Bank 1998). This was the trigger for capital flight from Asia. As investor confidence progressively worsened they scrutinised the other Asian economies for similar weaknesses. Lack of transparency in the financial and corporate sectors exacerbated a bad situation. Assuming that the large short-term debts would not be covered by falling reserves, both domestic and foreign investors scrambled to get out. Some investors were also forced to withdraw from one Asian market because they had incurred losses in other Asian markets, leading to the building of a contagion effect.

The behaviour of specific economic variables has been analysed by Kaminsky and Reinhart (1999) on a country by country basis. If the values of many variables cross their threshold levels on or before September 1997, then the Asian crisis was caused by weak fundamentals. In contrast, if few variables were flashing warning signals the Asian crisis should be attributed to the contagion effect. A functional definition of the contagion effect is separate markets reacting similarly to a common piece of information or an external shock. Since the attack on the French franc led to the 1992–93 European Monetary System (EMS) crisis and the Mexican crisis of 1994–95 spilling contagiously across the Latin American economies, the contagion effect has been hotly debated. Systematic empirical analyses have tried to ascertain whether a contagion exists in foreign exchange markets and concluded affirmatively. Attacks on foreign currencies raise the possibility of a domestic attack by 8 per cent (Eichengreen et al. 1996).

Kaminsky and Reinhart adopted Generation 1 models, which emphasise macroeconomic variables that are out-of-line. In this paradigm, economic variables to note are excessive monetary growth, deteriorating fiscal imbalances, and rapidly depleting international reserves. They determined a threshold that would signal an impending crisis with some—if not significant—lead time. Kaminsky et al. (1998) reviewed literature on the different indicators and the various methodologies of employing them. They also provided a list of principal indicators used in empirical work classified by categories. It included capital account, debt profile, current account, international variables, financial liberalisation, real sector, fiscal sector, institutional/structural
factors and political variables. They identified the countries and time periods in which the probability of a crisis was higher than elsewhere or at other times. This was done using a composite index and then computing the probability of a crisis within a specified period given the value of the index. The composite indices are calculated as follows. The data for the indicators Xjt, that is, indicator j at time t are transformed in the following manner:

\[ S_{jt} = 1, \text{ if the value of } X_{jt} \text{ crosses the threshold} \]
\[ S_{jt} = 0, \text{ if the value of the threshold does not cross the threshold} \]

As defined by Kaminsky and Reinhart, the indicator is considered good if in most cases when Sjt is one, a balance of payments crisis occurs during the period t+24 months. They adopted a lax definition for banking crisis, that is, Sjt assumes a value of one when Xjt crosses the threshold either one month to twelve months before the start of the crisis, or up to twelve months after the beginning of the crisis. They analysed the indicators of the following five countries: Indonesia, Korea, Malaysia, the Philippines and Thailand, which are sometime referred to as the Asian 5. These are five countries hardest hit by the crisis. The other countries were India, Pakistan, Mexico, Denmark, Finland, Norway and Sweden. The last-named five countries experienced financial crisis during the past decade. The Kaminsky-Reinhart methodology was applied to each indicator of these countries and the data were transformed into Sij. If the variable i for country j crosses the threshold within reasonable proximity of the crisis, Sij = 1. The idea was to determine whether many variables crossed the threshold within a reasonable period prior to the crisis. The Asian 5 had currency overvaluation as a prominent indicator prior to the outbreak of the crisis, whereas this indicator was weak in the Scandinavian crises. One possible cause of currency overvaluation in the Asian 5 was the inability of these economies to adjust to the sharp depreciation of the yen vis-à-vis the dollar. Exchange rate management seems difficult in the context of developing countries.

In Indonesia, only one indicator was of note prior to its tailspin in the latter half of 1997. Korea showed the greatest vulnerability to the crisis in terms of the number of noteworthy indicators prior to July 1997. But interestingly, the signals were flashing only in the first half of 1997. Apart from the currency overvaluation, the other danger signals were being emitted by the financial sector. Weak financial systems were the achilles heel of the affected economies. Statistical scrutiny shows that the Asian 5 countries were running fiscal surpluses prior to the crisis. When the Asian 5 are compared to the other Asian economies in the sample, it was noticed that Pakistan had more indicators flashing than the Asian 5. This evidence supports the argument that the Asian crisis cannot be explained by a weakness in fundamentals. It is also not surprising that the crisis was largely unanticipated. Thus, with the fundamentals out of contention, we are left with contagion as the likely reason for the huge and sudden withdrawal of capital from Asia.
Banks played a dominant role in the financial intermediation process in the Asian economies. However, in the recent past capital markets became increasingly important in these economies, particularly as governments relaxed restrictions that once prevented foreign investors from buying equity or bonds issued by local corporations. As the long-term development of industrial economies demonstrated, financial systems cannot function properly unless they enforce the basic tenets of a working market infrastructure. As alluded to in the preceding section, the supervising agencies need to ensure that banks do not take excessive risks and that they maintain an adequate resource level to repay depositors, should a need arise. The market will be unable to allocate funds optimally unless investors have accurate and timely information about borrowing firms. There is a high cost of information asymmetry. On the other side, corporations must adhere to high levels of governance norms and ensure that managers, as agents for shareholders, act in a clairvoyant, competent and responsible manner. When these elements of a financial system fail, poor quality investments will result, making the economy vulnerable to a collapse of confidence among firms and investors. Each of the Asian economies suffered from serious shortcomings in its financial market. The equity markets had serious flaws because Asian managers tended to try to offset declining profitability with ever-increasing amounts of foreign currency borrowings. When the currency crisis hit, borrowing firms could not generate enough of their weak local currencies to service their debts. It was not known to foreign investors that corporate equities in these firms not only failed to earn poor risk-adjusted returns, but that those returns did not cover the cost of capital. As if that was not enough, corporate governance-related weaknesses were also rampant. The weak systems of corporate governance in Asia failed to discipline excessive risk-taking. The majority of Asian firms (about 60 per cent) are family controlled, which should have eliminated the so-called agency problem. Agency problems are those that arise when diverse shareholders fail to effectively supervise corporate managers. However, family-owned companies were managed poorly and they channeled investment funds to related companies or personal commercial ventures. Many of their investment decisions were made to appease their respective governments, in accordance with their respective government’s priorities, rather than on the basis of commercial criteria. In addition, minority shareholders had little ability to prevent corporations from making unwise investment decisions. The end result was that investors lost confidence and cashed in their local currencies for the dollar, the yen or any other trustworthy and stable currency, in the process triggering a financial contagion (Harwood et al. 1999). Thus, one way to think about the Asian contagion is a run on the domestic banks. It was a generalised run on domestic currency assets.

The final consequences of the contagion were strong capital outflows and a sharp fall in asset prices. In the latter half of 1997, capital outflows not only neutralized the inflows of the first half, but also turned the net inflows for 1997 negative. According to the International Monetary Fund (IMF 1999) the five affected Asian economies (Indonesia, Korea, Malaysia, the Philippines and Thailand) suffered net private capital outflows of $19.7 billion in 1997. The World Bank put this
number at $11.9 billion. The level of 1996 net inflows has already been reported above. At a
time when export growth was decelerating, this outflow added to the external shock. The
Russian debt moratorium further lowered the market sentiment and the flight to safety and
liquidity not only continued but accelerated in 1998. Net private capital withdrawal from the five
Asian economies was $45.3 billion in 1998. While the level of FDI was not affected in 1997, it
recorded a sharp decline in 1998. Sharp declines were recorded in commercial bank lending,
followed by portfolio equity investments. Equity investment turned negative (-$6.5 billion) in
1998 after a sharp decline in 1997 (IMF 1999). The level of international reserves fell sharply in
all five Asian economies.

Trade, finance and macroeconomic similarities are the principal reasons for the spread of the
contagion. Trade links are an important channel that work as a conduit for the contagion. The
effect of contagion operating through trade is stronger than its spread as a result of
macroeconomic similarities (Eichengreen et al. 1996). Taking the Thai devaluation as an
example, a cheaper baht makes Thai exports more competitive vis-à-vis other neighbouring
economies with similar export lines. The demand for their exports falls in third country markets.
Lower exports mean a current account deficit made up by borrowing abroad or by drawing
down reserves. A lower level of reserves leaves neighbouring economies with fewer dollars to
defend their currencies, reducing market confidence in the currency, and making it a target for
currency traders (Walker 1998). The baht devaluation also had an income effect and reduced
Thailand’s ability to import from its neighbours, reducing intra-trade. Neighbouring economies
were forced to reduce their imports and a self-reinforcing downward trade spiral was set in
motion. The baht devaluation affected Indonesian trade in this manner.

The financial channel is another strong conduit spreading the contagion even when trade ties
are insignificant. In October 1997, mutual funds that were large investors in emerging markets
sold their Asian stocks due to falling markets. At the same time, fund managers were also forced
to sell their Latin American stocks to meet redemption orders. This had a dramatic effect in Latin
America’s relatively thin markets. Global investors who were active in the falling markets also
managed to create a bear market mentality.

In November and December 1997, when the Korean currency came under speculative
attack, Korean investors liquidated their relatively large holdings of dollar-denominated Latin
American Brady bonds. This brought down the prices of Brady bonds for Argentina and Brazil.
Brazilian banks had bought these bonds on borrowed funds. The fall in their prices sparked sale
of Brazilian local currency denominated assets for dollars by Brazilian banks (including the central
bank). This reduced the Brazilian central banks’s stocks of foreign reserves and made Brazil a
target for attack. This illustrates that without any change in fundamentals, a drop in liquidity
brought about by falling prices for one kind of asset may induce a sale of other assets and set in
motion a contagion.
Unfolding of the crises and their resolution

Since it was widely felt that the baht was overvalued, it came under speculative attack on several occasions between December 1996 and July 1997. After losing substantial reserves, the Bank of Thailand finally stopped defending the baht in July. It depreciated by about 15 per cent in the first week alone. The Indonesian rupiah, and the Philippine peso also depreciated gradually during that week. The depreciation of the peso and the rupiah gathered further momentum after 11 July 1997 and 17 August 1997, respectively, when the central banks of the Philippines and Indonesia adopted more flexible exchange rate policies.

Thereafter, Malaysia’s central bank also gradually reduced its intervention in foreign exchange markets. Since then all four countries have effectively floated their currencies, which continued depreciating. By January 1998, the nominal exchange rate vis-à-vis the dollar had depreciated significantly for all four currencies. The rupiah depreciated by 79 per cent, the baht by 52 per cent, the ringgit by 42 per cent and the peso by 36 per cent. The Korean won was relatively stable until mid October 1997, when it also started to depreciate. As a defensive strategy, the Korean monetary authorities widened the exchange rate band for the won to 10 per cent in November and allowed the currency to float in mid December (Exhibit 1). By January 1998, the won had depreciated by 41 per cent. The currency turmoil affected the Korean economy badly. With Korea entering the Asian crisis, the crisis acquired a new global dimension.

Investor sentiment had shown signs of considerable deterioration since the beginning of 1997. In fact, stock markets in Korea and Thailand had come under speculative pressure since the beginning of 1996. The Malaysian and the Philippines markets did not come under speculative pressure until the third quarter of 1997 (Exhibit 2). In these two economies, stock price indexes declined by 52 per cent and 48 per cent, respectively, in local currency terms, between the end of June 1997 and January 1998. In Indonesia the stock price index began a steep decline in June 1997 and by January 1998 had fallen by 80 per cent. All these declines are measured in local currency terms.
The crisis most affected Indonesia, Korea, Malaysia, the Philippines and Thailand; other Asian countries affected were Singapore and Hong Kong, and India and Pakistan to a lesser extent. Taiwan was affected least of all. Between June 1997 and January 1998, the Singapore dollar depreciated by 17 per cent, and the Indian and Pakistani rupees by 18 per cent. However, the currency depreciations in India and Pakistan had nothing to do with the Asian crises. They were essentially caused by domestic factors. The Hong Kong dollar had remained firm because the Hong Kong Monetary Authority had a sound currency board system, although the Heng Seng index fell by 26 per cent. The contagion effect of the Asian crises was felt by stock markets in Australia, New Zealand and in the emerging Latin American economies.

It was not only investor sentiment that was weak. Consumer confidence in the crisis-stricken economies also suffered a serious setback. The crises continued for a longer period than initially expected because these economies suffered larger-than-expected declines in both consumption and investment. The widespread asset value deflation, dramatic increases in interest rates (which were intended to keep the currencies from going into freefall), substantial corporate debt burdens and massive reversals in capital flows noted above made many firms unviable. Compression of domestic demand was accentuated by a tightening of bank credit resulting from the deterioration of banks’ balance sheets. The weakness in domestic demand also had an adverse effect on intra-regional trade and it decelerated. The IMF-supported programs imposed budgetary and monetary tightening, so that GDP growth rates in these economies would slow. This turned out to be a miscalculation on the part of the Fund because several of these economies went into deep recessions—not growth deceleration. With the benefit of hindsight, one can say that as soon as the possibility of recessions became apparent, a strong fiscal stimulus should have been delivered. This grave policy error made recessions deeper, wider and more prolonged in the crisis-stricken economies.

The regional engine of growth, the Japanese economy, grew by less than 1 per cent in 1997 and went into recession in 1998. The Japanese economy is very important for the Asian economies due to its size, regional trade and financial links as well as the regional role of the yen. The yen depreciated during mid 1998, exerting more downward pressure on the Asian currencies and causing further decline in Asian stock markets. Another reason for the continuation of the crisis for a longer period than initially expected was that some of the affected economies, like Indonesia, were slow in the implementation of stabilisation and reform programs. Political instability and delays in the implementation of programs caused the largest currency depreciation among the crisis-stricken economies. Malaysia introduced capital controls, raising fresh fears of similar actions in the minds of investors regarding other Asian emerging market economies.
Certainly, serious setbacks have occurred and several of these economies recorded major contractions during 1998. For instance, according to preliminary data the GDP growth rate of Hong Kong SAR was –5.0 per cent, Korea –6.5 per cent, Indonesia –16 per cent, Malaysia –6 per cent and Thailand –7 per cent. The Philippines and Singapore recorded zero GDP growth rate. However, significant endeavours have been made for crisis resolution by these economies since the beginning of 1998. The so-called IMF-three—Indonesia, Korea and Thailand—are trying to stabilise under the tutelage of the IMF programs. Financial support from the IMF to these three economies was organised under the emergency financing mechanism (EFM). Malaysia has formulated its reform program without the assistance of the IMF while the Philippines is receiving both finances ($1.4 billion) and macroeconomic advice under a stand-by facility of the IMF. The Asian Development Bank, the World Bank and bilateral creditors also assisted these economies in their stabilisation endeavours.

Some of the notable recent achievements made by the crisis-stricken economies are: the exchange rates of all the economies reached their lowest points around January 1998, and have since strengthened considerably; with recovery in their currencies, Korea, the Philippines and Thailand have allowed interest rates to decline, which in turn is having a salutary impact on their real economies; Korea and Thailand have been implementing structural reforms and made noteworthy progress with respect to macroeconomic stabilisation; the inflationary spurs, which took place in the wake of sharp currency depreciations, have in most cases subsided; all the crisis-stricken economies have recorded current account surpluses, which in turn have contributed to the strengthening of their currencies (IMF 1998); at the end of January 1999, Standard and Poors lifted the long and short term rating of Korea and Thailand to investment grade. Further, the PRC confirmed its commitment to not devaluing the renminbi yuan (NRI 1999). These improvements are underpinning a rebound in market sentiment in 1999. On the basis of GDP growth—or contraction—statistics and the endeavours to stabilise the economies, there are strong indications that the majority of the crisis-affected economies will have to continue to work hard during 1999. Their recovery will not be V-shaped, like that of the Latin American economies in 1994–95. The Asian recovery is more likely to be a U-shaped recovery. In the first quarter of 1999, recovery seemed optimistic. The only economy that did not show such indications was Indonesia; recovery is likely to take longer than the other four crisis-affected economies.

The structure of the crises

Throughout the 1980s and 1990s, the global economy was buffeted by three major financial crises. The first was the Latin American crisis of 1982–83. The second was the Mexican crisis of 1994–95, the so-called Tequila crisis, whose effect was felt throughout Latin America. The third is the current Asian crisis. Although there are differences, the crises noted above replicate the pattern described by Charles Kindleberger in his classic work *Manias, Panics and Crashes*. 
There is general consensus that all three crises involved two kinds of market failures: overlending by international financial institutions to emerging market economies and, overborrowing by governments, financial institutions or corporations.

Kindleberger has pointed out that the beginning of financial ‘mania’—irrational by nature—occurs when there is a sudden and significant increase in international liquidity. When this is followed by certain exogenous and endogenous factors, panic and crash result. Palma (1998) argues that while exogenous factors were present in the crisis-stricken Asian economies, overlending and overborrowing were essentially the endogenous variety of market failures. Financial markets were under-regulated and over-liquid, which created the appropriate conditions for what Kindleberger describes as the ‘cycle of mania, panic and crash’. The exogenous factors included inexperienced financial players, misguided government policies, poor corporate governance, non-transparency in the corporate and banking operations, and cronyism. The question of whether the propensity to overlend led to the propensity to overborrow, or vice versa is impossible to answer. Therefore, both phenomena should be considered two aspects of the same market failure. Palma further argues that in these three crises, the ‘mania’ was inspired by excess international liquidity interacting with exuberant expectations of future returns in the borrowing countries on the one hand and inadequate domestic regulation and supervision on the other.

In the fourth quarter of 1998, Brazil appeared financially destabilised and vulnerable despite a $41.5 billion line of credit from the IMF. The crisis that was developing in Brazil had the same structure and characteristics as the above-noted three cases. Brazil was more vulnerable to sudden collapse of confidence and withdrawal of finance by global investors because the global environment was more volatile than when the Asian crises began. The Brazilian government floated the currency in mid January 1999 and was struggling to win credibility for its new currency policy from the international financial community.

**Lessons from the Asian crises**

Financial globalisation is here to stay; that is, the approach to economic and financial management based on openness to, and increasing integration with, the global economy will be the policy framework for the future. This is not a theoretical conclusion but rather the practical outcome of the decisions taken by policy makers in the Asian emerging market economies as they confronted crisis. Virtually all of them rejected the strident calls to withdraw from the global capital markets, to close down their capital markets, and to retreat into financial isolation.

The single most important lesson for the emerging market economies from the Asian financial and currency crises is related to the banking and financial sector. One of the major elements underlying the Asian crisis was the weakness in this sector. While a crisis situation may develop even when the financial system is relatively strong—as in Brazil in 1998—the extent of the crisis...
is significantly affected by the strength of the financial system. It is clear that a system that
neglects prudential norms and encourages non-transparent ties between government, business
and financial institutions is vulnerable to crisis. In addition, once a crisis situation develops, failure
of the monetary authorities to rapidly tackle these weaknesses has a devastating effect on market
sentiments, both domestic and foreign. Thus, there is a decisive role for the monetary and
made the same point in somewhat different language when he stated that

depth, efficiency, and robust financial systems are essential for growth and stability. But
left to themselves, financial markets will not become deep, efficient, or robust. The
government should play an essential role, both in directly overseeing and regulating the
financial system and also in establishing the correct incentives to encourage prudential
and productive behaviour.

Stiglitz’s argument 

prima facie is anti-
laissez.faire. However, it is worth noting that in an
excess liquidity situation a laissez.faire approach is not likely to contribute to making financial
markets “deep, efficient or robust”.

The climate of governance in the Asian economies was that of shielding banking and financial
institutions and corporations from market discipline. The result was neglect of prudential
standards and encouragement of short term flows. This climate also preserved non-transparent
ties between the government, business sector and financial institutions. This climate of governance
must not be allowed to emerge and where it has, it should be dismantled and care must be taken
not to allow it to regenerate. The Asian crises have shown the detrimental impact of this climate
of governance on market sentiment, both domestic and foreign. Asian economies have accepted
the need for restructuring their financial sectors. New standards of transparency and accountancy
norms are being defined. ‘Arm’s length’ relationships among governments, corporations and
banks, are essential as a starting point for good corporate governance. After restoring viability of
the banking and financial sector, a sound and politically independent regulatory and supervisory
system must be put in place. It is essential in order to reduce the possibility of future crises.

As the financial system is strengthened, the economy is able to make continuous progress
toward open capital markets. Policy makers now understand that to liberalise their capital
accounts successfully they should first proceed in a properly sequenced manner with the
strengthening of their domestic financial system. Secondly, they should not allow the easing of
controls on longer-term capital flows to lag behind the liberalisation of short term flows. While
liberalising capital accounts, a careful sequence must be established, starting with the long term
aspects and gradually and carefully moving to the short term, as the financial system is
strengthened. Speed in this regard can be counterproductive. This is one of the key lessons from
the Asian crisis.
Rapid accumulation of short term debt by banks and private corporations was an important trigger of the crisis. When creditors’ assessments of country risk turned pessimistic, credits were withdrawn in panic. These outflows became an overwhelmingly destabilising influence on the Asian economies. Therefore, short term fund movements should be watchfully monitored. Excessive inflows should be prevented with the help of prudential monitoring. Policies followed by Chile in this regard have drawn a great deal of attention. What is equally important is that conditions for their efficient use must be strictly enforced.

It has been noted that the Asian crises originated in the private sector. If there had been greater certainty that private creditors would roll over or restructure debts, rather than progressively exit from these markets, Asian economies would have stabilised and recovered more quickly (Neiss 1998). The lending banks and other creditors should be involved in crisis resolution at an early stage and made to share their part of the burden. The Economist (1998) labels it the ‘bailing in’ argument. It is far from clear how practices will evolve in this difficult area. The contribution of the private sector is best left to discussions and negotiations between the debtor emerging market economy and the creditor banks, and indeed to the circumstances of the particular economy.

Fiscal policies were not an important causal factor contributing to the crisis scenario in Asia, yet a low level of fiscal deficit helps by reducing an economy’s reliance on external saving. Monetary policies need to be paid greater attention. A lax monetary policy will create inflationary pressure and eventually lead to excessive exchange rate depreciation in a crisis situation. Higher rates of inflation will also make exports uncompetitive and exert downward pressure on trade partners’ currencies. When a financial and currency crisis does develop, an increase in interest rates to halt the extent of exchange rate depreciation heightens the sense of panic. High interest rates will also create problems for the domestic financial sector and real economy.

The crises in all five Asian economies were associated with exchange rates that were de facto fixed. There is enough evidence to suggest that such a system is prone to crisis. Equally striking is the evidence from other economies (like Mexico, Turkey and South Africa) which faced financial pressures but whose flexible exchange rates allowed them to manage those pressures better. It is likely that in future more countries will adopt flexible exchange rate systems. If they choose to fix their exchange rates they will do it in a definitive manner, for example by adopting a currency board arrangement. However, enthusiasm for fixed exchange rates is not universal. The most pragmatic arrangement for an emerging market economy will be to adopt some sort of managed float, possibly a crawling peg system with a broad band.

**Summing up**

The Asian crises had their origins in the private sector, and were a case of market failures. A progressively integrating global banking and financial system and financial sector fragilities were
Asian economic and financial crises, Dilip K. Das, EA99-4 20
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the two main causes. Once the crisis started in Thailand, it continued to broaden and deepen with astonishing speed.

There were several contributing and causal factors behind the Asian crises. In the former category come factors like deceleration in export growth and GDP growth, a global slump in demand for electronics, the yen depreciation and widening interest rate differentials in the Asian economies. However, the principal causal factors were: that the past economic success of these Asian countries made them attractive locations for foreign investment, resulting in large capital inflows, including short term inflows; that various elements in their external economic environment that were initially favourable subsequently turned sour in several respects; limitations and inconsistencies in domestic macroeconomic and exchange rate policies; institutional weaknesses, including a fragile and vulnerable financial sector (this is considered by many to be the biggest causal factor); structural weaknesses, including nepotism, cronyism and corruption and a lack of commercial orientation in many investments.

The asset price bubbles, dollar-linked exchange rate, large unhedged short term borrowings from the international banks, steep fall in export earnings, a large current account deficit and fast plummeting foreign exchange reserves in Thailand created immense difficulties. In early 1997, finance companies that had made heavy investments in the real estate sector began to experience serious cash-flow problems. The Thai government attempted financial bailouts, which proved counterproductive. Speculative pressure mounted in the currency markets and after losing a great deal of foreign exchange reserves, the baht-dollar link had to be severed. This was the spark that lighted the fuse of the Asian crises.

Progressively worsening investor sentiment and a lack of transparency in the financial and corporate sectors exacerbated a bad situation. Assuming that the large short term debts would not be covered by falling foreign exchange reserves, both domestic and foreign investors scrambled to get out. Withdrawals from one Asian market due to incurred losses in other Asian markets led to a contagion effect, which caused a fall in asset prices and strongly spurred capital outflows from the region. Trade, finance and macroeconomic similarities were the principal channels through which the contagion spread.

Consumer confidence in the crisis-stricken economies also suffered a serious setback. The crises continued for a longer period than initially expected because these economies inter alia suffered larger-than-expected declines in both consumption and investment. The recession in the Japanese economy and the stringent policy packages prescribed by the IMF also contributed to the continuation of the crises. Although serious setbacks had occurred, recovery looked promising in the first quarter of 1999.

The Asian crises provide several lessons. First, there is a high probability of weaknesses in the financial sector when the capital account is liberalised, leading to a crisis situation. A neglect of prudential norms and supervision standards makes the system vulnerable to crisis by
encouraging non-transparent ties between government, business and financial institutions. Second, the Asian crisis has demonstrated the detrimental impact that lack of market discipline and poor governance can have on market sentiment. Third, capital account liberalisation must be careful and sequential. Fourth, short term capital inflows, which can potentially be destabilising, should be contained by prudential norms as well as by other means. Fifth, in a crisis situation the private sector should be made to bear its responsibilities. That is, while resolving a financial crisis commercial banks should be ‘bailed in’ not bailed out. Sixth, fiscal and monetary policies need to be conservative. Profligacy in fiscal policy and laxity in monetary policy can and do lead to excessive exchange rate depreciation in a crisis situation. Finally, fixed exchange rate systems are highly crisis-prone. Emerging market economies would be wise to adopt some sort of managed float for their currencies.

Notes
1 Hong Kong SAR, Korea (Republic of), Singapore, and Taiwan.
2 Malaysia is an exception.
3 and subsequently in Russia and Brazil.

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