

Asian Currency Crisis and the International Monetary Fund, 10 Years Later: Overview*

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This paper is an overview of the Asian currency crisis in Thailand, Indonesia, and South Korea in 1997–1998, with an emphasis on the role of the International Monetary Fund (IMF). It provides a detailed account of the development of the crisis and analyses and evaluates the content of IMF advice and its consequences. The size of the IMF package for each of these three countries is judged to have been too small. This paper also has a comparative perspective; the Mexican crisis is reviewed as a precursor to the Asian crisis to see what the IMF learned, and how it prepared, for future crises. The causes of the crises and IMF conditionality for the post-Asian crisis countries, Russia, Brazil, Turkey, and Argentina, are also compared to the Asian crisis countries. By agreeing to maintain a fixed exchange rate, for example, the IMF is judged to have been “softer” in its approach to the post-Asian crisis countries.

Key words currency crisis; IMF; conditionality; lender of last resort

1. Introduction

Many papers and books have been written on the Asian crisis, describing what happened to Asian countries and what the International Monetary Fund (IMF) did or did not do to the Asian countries in crisis.¹ However, crucial questions – why the crisis became so deep and widespread, and whether the IMF mitigated or aggravated the crisis – have been long debated without a consensus among researchers and policy-makers. This paper will benefit both from documents disclosed by various sources in the last 10 years and from knowing what assertions and hypotheses survived the test of the time. This paper will also remind readers of some details that might have been forgotten, but are important in evaluating the role of the IMF in the Asian crisis. The role of the IMF in handling the post-Asian crises has also evolved during the last decade. It is now possible to examine the IMF approach to the post-Asian crises in comparison to the Asian crisis. For these reasons, this paper not only revisits the debate, but also attempts to gain a new perspective by comparing what happened in the post-Asian crises.

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On July 2, 1997, the Thai baht was floated. This was the beginning of a crisis that would spread to neighboring countries in the following 6 months. It is important to recall that in the Thai crisis, there was a lack of a sense of urgency immediately after the float. In contrast to the Mexican peso, which lost half of its value in 1 week after the Mexican crisis, the Thai baht lost only 15% immediately, but stayed at that level (or slightly lower) for the following several weeks.

The contagion – a crisis spreading from one country to another – seems obvious in the fall of 1997. As the Thai baht depreciated in July, all other currencies became more flexible. Up to September, it appeared that the Thai baht was at the epicenter of the regional shock, as it was the currency that depreciated the most. Most of the East Asian exchange rates depreciated from July to September 1997, but the magnitude of their depreciations were less than that of the baht. At that point, the countries could be categorized into four groups according to the degree of the depreciation of their currency. The currency that depreciated the most was the Thai baht; the group with the second largest depreciations included the Malaysian ringgit, the Indonesian rupiah, and the Philippine peso; the third group with only slight depreciations included the Singaporean dollar, the New Taiwan dollar, and the Korean won; and the fourth group that maintained their dollar pegs were the Chinese yuan and the Hong Kong dollar. However, in December, the Indonesian rupiah and the Korean won surpassed the Thai baht in terms of their cumulative depreciation from the end of June. In fact, the fall of the Korean won from October to December was quite rapid – even more rapid than the Thai baht depreciation in July. From December 1997 to January 1998, the Indonesian rupiah led the decline, while the Korean won stopped its decline after the end of December. Some describe the crisis as having spread through the region like a brush fire – so sudden that you could not stop it. However, this is inappropriate as the first seven months saw various moments of decision, or chances to stop contagion, but failed. Debates center around the tough conditionality – fiscal and monetary tightening and structural reforms – of the IMF programs to Thailand, Indonesia, and South Korea, and, despite the appearance of large packages, little tangible financial assistance in return considering the size of these countries' external debts.

By mid-January 1998, the currencies of all emerging market economies in East Asia had lost half of their pre-crisis values in terms of the US dollar. The worst hit was the Indonesian rupiah that fell to one-sixth of its pre-crisis value vis-à-vis the US dollar. In Indonesia, the large depreciation and the political and social turmoil reinforced each other climaxing with the resignation of President Soeharto in May 1998. Exchange rate stability in many Asian countries improved after the summer of 1998, but deep problems in output activities and the banking sectors remained. Substantial depreciations gradually helped the export sectors, but the balance sheets of many financial institutions were seriously damaged. In the second half of 1998, all currencies, except the Indonesian rupiah, recovered a third to a half of the value lost during the crisis. Although all crisis-affected East Asian countries experienced negative growth rates in 1998, many of them made remarkable recoveries in 1999–2000. During the deep recession of 1998, the downturn seemed endless and the damage to the economy and society to be permanent, but once the recovery started in 1999, most of the Asian economies went back to growth paths that were similar but slightly lower than the pre-crisis rates.

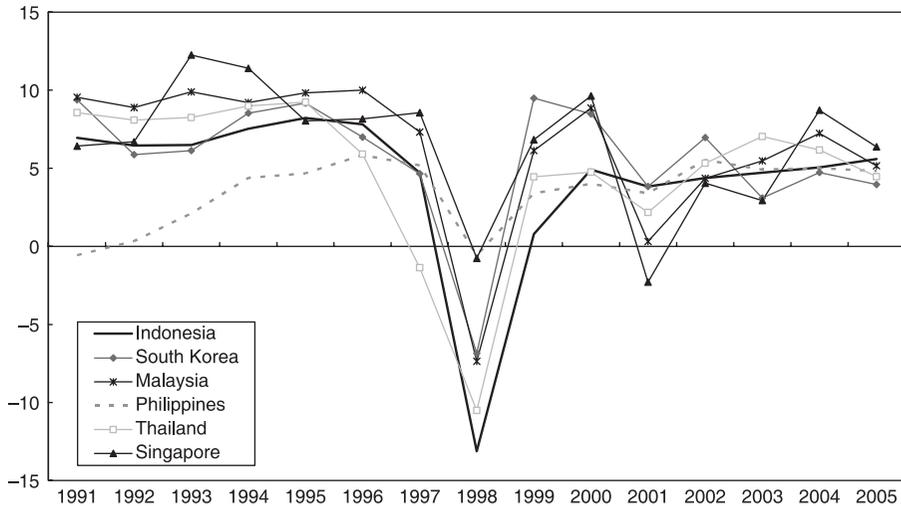


Figure 1 Growth rates.

Source: The original data used to produce Figures 1 to 5 are obtained from IMF, International Financial Statistics online, February 2007.

Note: Author's calculations used.

Even after the Asian crisis was over, other emerging market economies fell into crisis: Russia in 1998, Brazil in 1998–1999, Turkey in 2000–2001, and Argentina in 2000–2001. Each country had an IMF program that first supported a crawling peg or fixed exchange rate, but the program fell apart within a few months. The fact that the IMF did not require devaluations or floats at the crucial moments of these post-Asian programs looked “soft,” in contrast to the programs for Asia.

The rest of the paper is organized as follows. Section 2 describes macroeconomic development of the last 10 years contrasted to the pre-crisis years. Section 3 explains what happened in the Mexican crisis of 1994, as a precursor of the Asian crisis. Section 4 discusses crisis management and the evaluation of the Asian currency crisis episode. Section 5 examines the role of the IMF in the post-Asian crises. Section 6 concludes the paper.

2. Ten-year Changes of Macroeconomic Developments

Ten years after the onset of the Asian crisis, we are now in the position to look back and examine whether the Asian currency crisis left a permanent scar or only a temporary blip in the economic development of the region. A series of the macroeconomic time series are presented as an overview of the 10-year, post-crisis experiences compared with pre-crisis experiences.

First, Figure 1 shows the growth rates of six countries – Indonesia, South Korea, Malaysia, the Philippines, Thailand, and Singapore – from 1991 to 2005. It shows literally a V-shape recovery with a very deep trough in 1998, with peaks around it in the two preceding years and the two following years. The year 2001 was the post-information technology-bubble recession as were in the advanced countries. The average growth rate

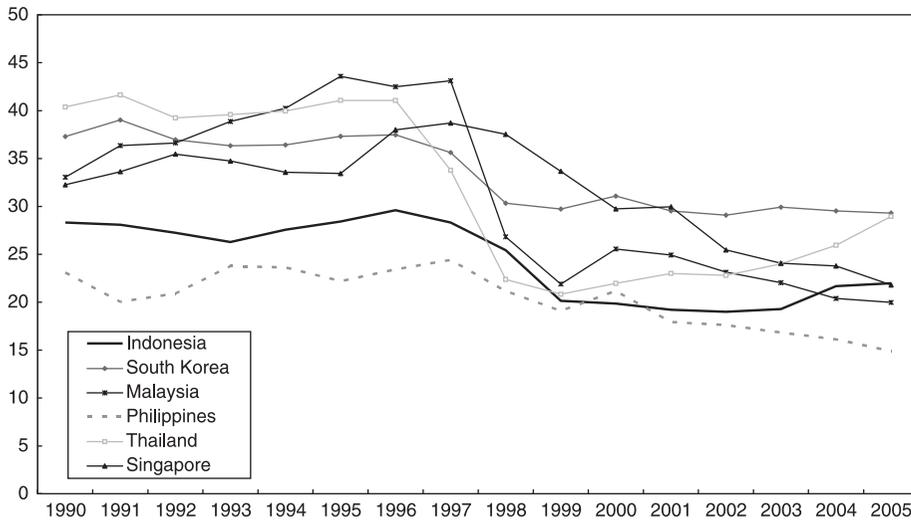


Figure 2 Investment rates.

Note: For each year, the investment rate is defined as the percentage share of nominal fixed investment in nominal GDP.

of the pre-crisis 6 years (1991–1996) – roughly 7–9% – was higher than that of the post-crisis 7 years (1999–2005) – roughly 4–6% – for all countries (except the Philippines). But even the post-crisis growth rates seem respectable for emerging markets. Although the growth rates recovered to respectable levels, the lost output of 1998 was never recovered.

The lower growth rates in the post-crisis years are most likely attributable to the lower investment ratios (fixed investment/GDP[*gross domestic product*]), which are shown in Figure 2. The investment ratios in the pre-crisis years were quite high by international standards. South Korea, Malaysia, Thailand, and Singapore were devoting more than 30% of their GDP to fixed investment. Indonesia and the Philippines had lower investment ratios. The post-crisis drops in the investment ratios are quite dramatic, and, unlike the growth rate, the investment ratios never showed a V-shape recovery. Some researchers and policy-makers interpret this as a protracted effect of the Asian crisis on the growth potentials of the Asian economies, with a wish to go back to the pre-crisis investment-cum-growth potentials. However, a different interpretation may be possible. Namely, the pre-crisis years were rather abnormal in the sense of overinvestment; that is, countries were investing too quickly so that marginal return to capital became rather low.² In this interpretation, the post-crisis years present a more normal, sustainable growth path for these countries.

The nominal exchange rate movements from January 1991 to December 2006 are shown in Figure 3. The pre-crisis levels (the level at the end of June 1997 – 2 days before the Thai floatation) are all normalized at 100 for each currency. Figure 3 shows a spectacular, simultaneous fall of the currencies of the six countries from July 1997 to January 1998. Although all the currencies started to recover in the spring to summer 1998, they never reached back to the pre-crisis level. At the end of 2006, after almost 10 years, the Singaporean dollar and the Korean won have recovered to 90–95% of the pre-crisis level – a strong

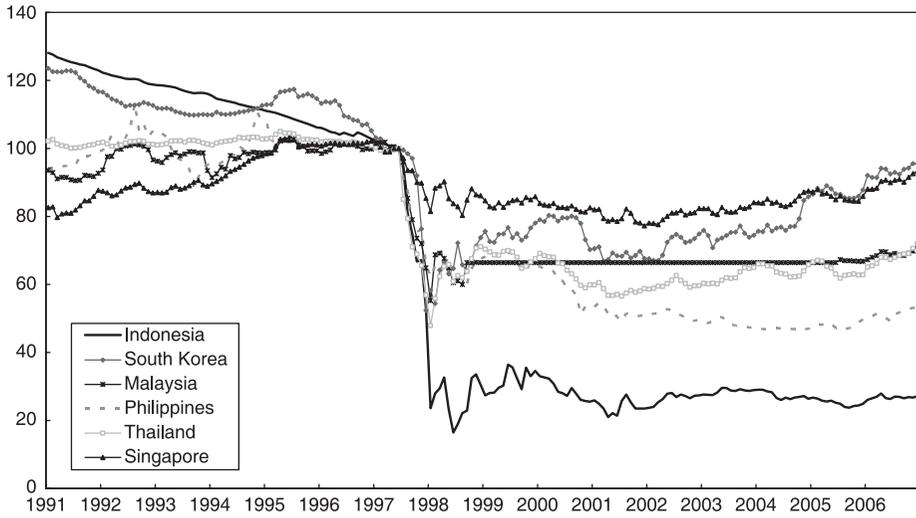


Figure 3 Exchange rates.

Notes: End of month data on exchange rates are used to construct this Figure. All exchange rates are normalized to 100 in June 1997.

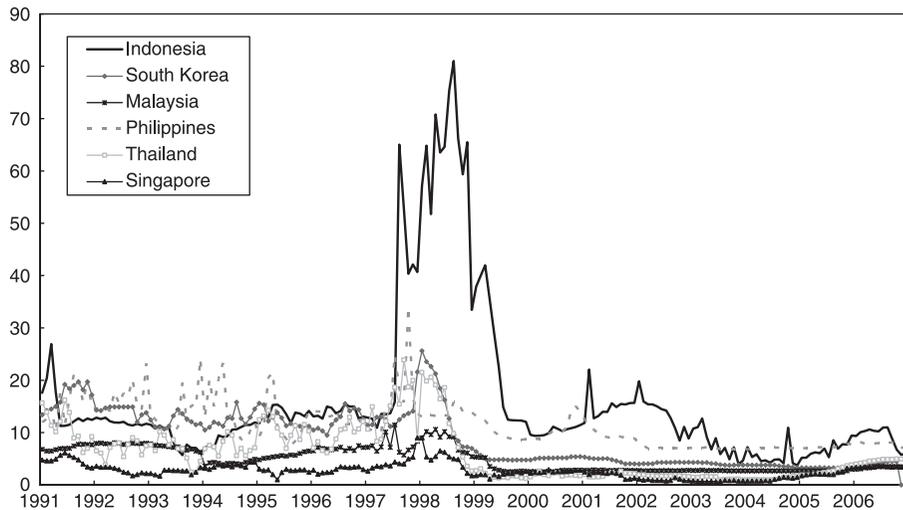


Figure 4 Interest rates.

showing. The Thai baht and the Malaysian ringgit recovered to the level approximately 30% discount to the pre-crisis level. The worst cases are the Philippine peso, which has remained at about a half of its pre-crisis value since 2001, and the Indonesian rupiah, which has remained at about one-quarter of its pre-crisis level since 2001.

Sharp exchange rate depreciation pressure is often resisted by a central bank with a high interest rate policy. Figure 4 shows the (short-term) interest rates of the six countries

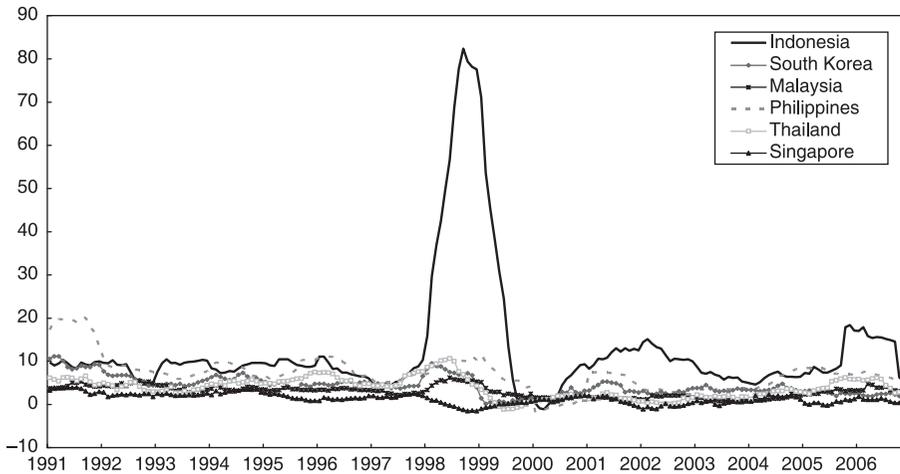


Figure 5 Inflation rates.

Note: The inflation rate in any country is calculated as the year on year change in prices computed using monthly data on the consumer price index.

from 1991 to 2006. The very high interest rates, in the range of 50 to 80%, in Indonesia in 1998 in the middle of its political crisis were outliers. The Philippines was another country that had somewhat a high interest rate policy, with a peak of 34% in October 1997, in the middle of the crisis. Except for Indonesia and the Philippines, interest rates have been rather low, below 5%, and stable since 2001.

The heavily depreciated levels of the nominal exchange rates and relatively high nominal interest rates in the Philippines and Indonesia reflect relatively high inflation rates in the two countries. Figure 5 shows the inflation rates of the six countries from 1999 to 2006. Again Indonesia is an outlier in experiencing a very high inflation rate. Of course, the impact on the real side of the economies should be evaluated using by real exchange rates and real interest rates (not shown here). With a depreciated but stable level of the nominal exchange rate in Indonesia, the high inflation rate means that the real exchange rate has been appreciating.

3. Mexican Crisis: A Precursor of the Asian Crisis

The story of the Asian currency crisis should start in Mexico, since it was precursor of the Asian currency crisis. Many elements that led Thailand to a crisis were already observed in Mexico, and many of the constraints and problems that haunted the IMF during the Asian crisis were already known in the wake of the Mexican crisis. One could argue that if the Asian countries, the IMF, and Group of Seven (G7) had taken the Mexican crisis more seriously, they could have been prepared for preventing and managing a crisis, and the Asian currency crisis might have been avoided, or, at least, could have been dealt with in a better manner to lessen the damages to the Asian economies.

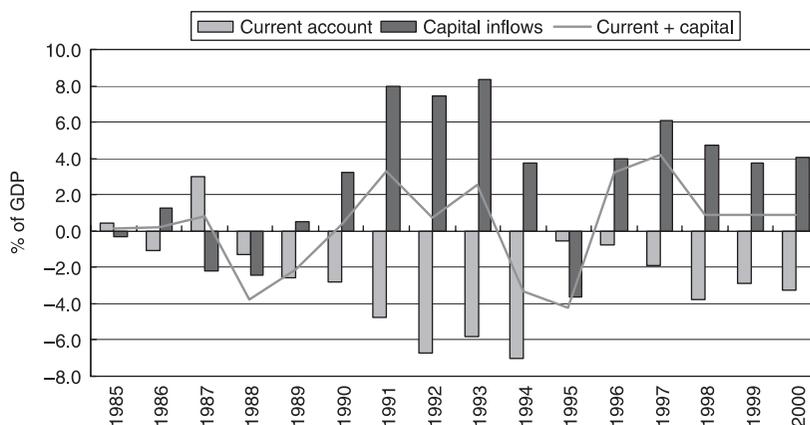


Figure 6 Mexico's current account and capital inflows (as a percentage of GDP).

Source: IMF, International Financial Statistics online, February 2007.

When Mexico announced on December 20, 1994, that it would devalue the peso by 15%, it was a big surprise for the IMF as well as investors. Investors were caught off-guard and rapidly withdrew their capital from Mexico. The peso was forced to be floated on December 22, and it depreciated by more than 40% within a week. Quick assessments by the IMF revealed that short-term government securities, *tesobonos*, to mature in the following 3 months would by far exceed the already depleted foreign reserves.³

Mexico did not suddenly fall into a crisis. The Mexican government did not take any appropriate action in response to signs of a deteriorating macroeconomic situation. The case in point was the movement of current account deficits under the de facto dollar peg. Figure 6 shows the large current account deficits and the more-than-offsetting capital inflows that made the overall account positive in 1991–1993. The current account deficits were high at 8%, but capital inflows exceeded this, thus foreign reserves increased from \$US10 billion in the beginning of 1991 to \$US30 billion in the beginning of 1994. Just looking at the increasing foreign reserves, investors would not detect a sign of weakness. With the benefit of hindsight, it can be shown that capital flows reversed direction in the first quarter of 1994. Foreign reserves indeed declined sharply from March 1994 to December 1994. However, the decline was not disclosed to the public as the Mexican central bank did not publish information on the balance of foreign reserves for several months before the devaluation.

During January 1995, the USA and the IMF tried to formulate a rescue package for Mexico to avoid a default of government short-term debt, *tesobonos*. As the US Treasury was eager to support Mexico to avoid a default of *tesobonos*, it planned a \$US40 billion scheme to guarantee private sector loans to Mexico, but the opposition in the US Congress made it impossible to pass the bill. The US Treasury switched its strategy to use the discretionary budget, the Exchange Stabilization Fund.⁴ The IMF was constrained in giving loans to Mexico by the general rule of the access limit that amounted to only \$US7.8 billion. In the end, the USA and the IMF cooperated and put together a package of more than \$US50 billion to calm down the market. The IMF had to bend its rule on access limits

to provide \$US17.8 billion (689% of quota).⁵ Advanced countries (excluding the USA) contributed \$US10 billion through the Bank for International Settlements (BIS). The World Bank contributed \$US1.5 billion, and the Inter-American Development Bank contributed \$US1.3 billion. Once the IMF package was put together and the disbursement of loans from IMF and USA was complete, the market became calm. Spillovers to other Latin American countries were also put out before becoming another crisis. In the end, the operation was regarded as a success as the crisis was contained in Mexico and did not spread to Latin American countries.

The Mexican crisis raised several important issues regarding the role of the IMF. Then Managing Director Michel Camdessus called the Mexican crisis the first of a twenty-first-century-type crisis. He would be proven right in predicting more crises of a similar nature. But, unfortunately, the IMF would not be prepared to deal with the crisis in Thailand in 1997. Of course, partial lessons of the Mexican crisis were identified and learned, but actions toward crisis prevention and management were implemented only partially, if at all, before July 1997. First, the IMF had to improve its role of surveillance, detecting vulnerabilities and weaknesses, and predicting a crisis before investors start to withdraw funds. Better yet, the IMF should prevent a crisis by giving the right advice to turn the economy around in time. Second, the Mexican case made it clear that when a mid-size emerging market country with free capital mobility experiences sudden capital outflows, the amount of assistance that is needed to stop the flows becomes much more than the amount that the IMF was meant to be able to provide, the access limit. Can the IMF prevent moral hazard, while it acts as an international lender of last resort? Third, many economists and policy-makers, particularly in Europe, criticized the IMF–USA rescue plan for Mexico as a bail out of Wall Street investors rather than the Mexican government. In general, the restructuring of sovereign bonds was considered to be legally and politically difficult. In the Mexican crisis, it was recognized that an extremely important question was whether the IMF should become a lender of last resort or should construct a mechanism to pursue private sector involvement without disturbing international capital markets. However, before any significant progress on these points had been made, the Asian crisis occurred.

4. Asian Currency Crisis

4.1 Thailand

There are many similarities and dissimilarities between the Mexican and Thai crises. Unlike the Mexican case, the IMF had been aware of the risks in the Thai economy since at least the end of 1996, and had repeatedly recommended that the exchange rate be made more flexible. The IMF learned from the Mexican case that an emerging market economy with large current account deficits and offsetting capital inflows may be exposed to sudden capital flow reversal.⁶

Like the Mexican case, Thailand had large current account deficits, about 8% of GDP, and more than offsetting capital inflows of about 10% of GDP as shown in Figure 7. The 3 years of large capital inflows before the currency crisis are very similar to Mexico as was shown in Figure 6.

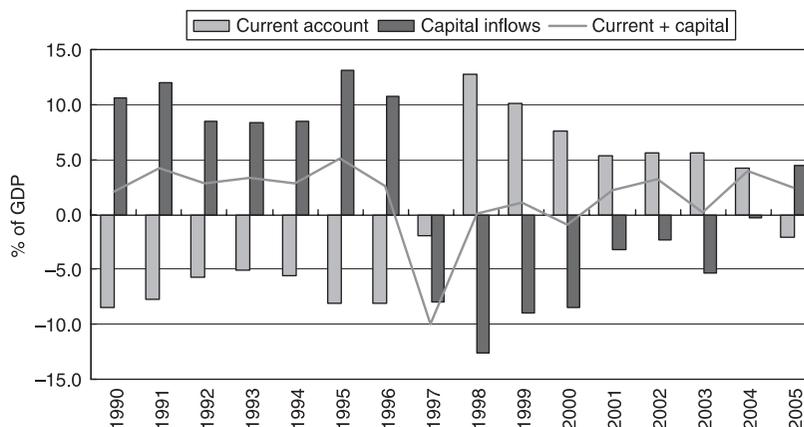


Figure 7 Thailand's current account and capital inflows (as a percentage of GDP).

Source: IMF, International Financial Statistics online, February 2007.

Unlike the Mexican case, Thailand was attacked by short selling of the baht by speculators months before the currency was floated. The Bank of Thailand intervened in the spot market (selling the US dollar) to keep the exchange rate stable. At the same time, the central bank defended the currency in the swap market (purchasing dollars with commitments to sell them on some future date). With these transactions, the Bank of Thailand could maintain a relatively stable exchange rate, a stable interest rate, and a relatively stable amount of disclosed foreign reserves, but with an increasingly larger commitment to sell dollars in the future. The net amount of foreign reserves, current foreign reserves minus forward selling position of dollars, was kept confidential, although the traditionally defined foreign reserves were announced at regular intervals. The battle between the central bank and speculators continued from December 1996 to May 1997. In 1 week in May 1997, massive speculation took place. When the dust settled, the Bank of Thailand was left with an undisclosed forward position to sell more than \$20 billion in dollars, while the disclosed amount of foreign reserves barely exceeded the amount of forward contracts.⁷ The Bank of Thailand introduced capital controls on May 14, so that domestic financial institutions were banned from lending baht to foreigners. This bought some time against further speculation.⁸

Speculators attacked Thailand with reason – the economy seemed vulnerable. First, as explained earlier, current account deficits were large just as in Mexico. Second, the financial sector had become vulnerable because of a boom and bust in asset markets in 1994–1996. The finance companies, non-banks that invested in real estate and other high-risk businesses, borrowed from domestic and foreign banks, and their balance sheets had become damaged by the end of 1996. Thai banks also borrowed from foreign banks in US dollars and lent domestically in Thai baht. While the operations of the worst financial institutions were suspended, many weak institutions were aided by lending from the Bank of Thailand, through the use of the liquidity facility, Financial Institutions Development Fund. This amounted to forbearance by the supervisory authority.

The Thai baht depreciated by 8% on the day of its float on July 2, 1997, and by 15% (compared to the pre-crisis level) in 2 weeks. The pace of the depreciation was rapid, but not as rapid as the pace of the Mexican peso's depreciation after the devaluation of December 1994. At this point, few people predicted that a major crisis would develop in the region in the following 6 months. The IMF and Japan put together a package for Thailand in August 1997. Just as in the Mexican case, the IMF alone could not finance the amount necessary to defend the baht due to its access limit. At this point, the Thai baht had depreciated by only 20% compared to its pre-floating rate. This was not a serious crisis, but a necessary adjustment of an overvalued currency. Had the baht exchange rate been maintained at that level, the regionwide Asian crisis might not have happened.

The IMF program was announced on August 20, 1997. The IMF was to lend \$US4 billion (505% of the Thai quota), Japan \$US4 billion, the World Bank \$US1.5 billion, and the Asian Development Bank (ADB) \$US1.2 billion. Asian countries also joined the package with China, Australia, Hong Kong, Malaysia, and Singapore each promising \$US1 billion, and South Korea, Indonesia, and Brunei each promising \$US0.5 billion. The total amount of the IMF package was \$US17.2 billion.

After the IMF announcement, the Thai baht did not rebound, but slid further. One of the reasons that the market was not impressed by the IMF program was the disclosure of the forward commitments held by the Bank of Thailand that promised to sell \$US23.4 billion in the future. In fact, with both announcements taken together, the IMF package did not increase the amount of foreign reserves, but rather allowed them to be depleted. In addition, short-term debts among the private sector were estimated to be more than \$US30 billion.⁹ In this sense, the IMF package of \$US17.2 was not large when compared with the amount of debt to be dealt with. The market reaction accurately reflected the unimpressive amount of the package.

The baht did not respond to the announcement of the IMF package at all, and depreciated a further 4.5% in the following week. The lack of a credibility effect of the IMF program was surprising. The weak financial institutions were also targeted to be closed.¹⁰ The IMF recommended a fiscal tightening, as well as a monetary tightening in the IMF package of August 1997. A monetary tightening was the standard IMF prescription to prevent a depreciation of the baht. A fiscal tightening was also considered to be a prudent action. Moreover, the generation of a fiscal surplus of about 1% of GDP was recommended partly to finance the cost of injecting funds into suspended, insolvent financial institutions to liquidate their accumulated non-performing assets. However, it soon appeared that the fiscal tightening was a mistake, as economic activity quickly slowed down. The developments between the end of August and the end of November were frustrating for both the IMF and the Thai government. The IMF was pressing for a faster implementation of the closure and liquidation of weak financial institutions with a monetary tightening. The Thai government was struggling with political unpopularity. The Thai government could not close down financial institutions since they could not determine whether they were insolvent, so they hired international consultants to carry out due diligence, which took time. In addition, there was no law that enabled the Thai government to take strong action against financial institutions.

In summary, with respect to crisis management after the crisis erupted in Thailand, the IMF clearly failed by providing a package that was too small to prevent a further deterioration in the baht and the Thai economy with spillovers to the neighboring countries. The recommendation of fiscal tightening was partly misguided as the economy was deteriorating quickly.

Several lessons emerged from the Thai experience. For emerging market countries, two lessons stood out. First, the danger of a de facto dollar peg was again confirmed. The de facto dollar peg may result in an overvalued real exchange rate if the domestic inflation rate is higher (as is usually the case in emerging market economies) than the US rate. The de facto dollar peg encouraged borrowers and lenders to engage in financial transactions that underestimated exchange rate risk. Thus, domestic banks and corporations in the case of Thailand (and the government in the case of Mexico) developed a double mismatch: a currency mismatch and a maturity mismatch. Second, if the fixed exchange rate is to be abandoned, the central bank should do so at a time when they hold sufficient foreign reserves.

There were also lessons for the IMF. The Thai experience should have been regarded as a failure to maintain the currency value after a program was agreed to between the country concerned and the IMF. A large part of the deterioration of the baht was most likely due to the relatively small size of the IMF program. It was small both compared to Mexico and to the liabilities of the central bank in the forward market. Considering all the central bank's short-term liabilities, the amount of the package was less than that of sufficient cushion. It is an educated guess that the IMF was hesitant to provide a large-scale loan to Thailand since the IMF was criticized for bailing out Mexico and producing moral hazard. The Thai government did not insist on a larger program because of a false sense of being different from Mexico in that Mexico's external liabilities were due to government liabilities, whereas Thailand's external liabilities were in the private sector.

4.2 Contagion: Depreciation, Asian Monetary Fund, and Hong Kong

What followed the Thai crisis was a domino of the currencies in the region. From July to the end of September, the Thai baht led the decline of the Asian currencies. By mid-September, the Thai baht had lost 30% of its pre-crisis value, followed by the Philippine peso, Malaysian ringgit, and Indonesian rupiah by 20%. The strongest group was Korean won, Singaporean dollar, and New Taiwan dollar with depreciations of only 5%. The Hong Kong dollar and Chinese yuan were pegged to the US dollar throughout this period (and beyond). By leading the currency declines, the Thai baht was an epicenter of the regional crisis from July to September, but it became rather the periphery of a crisis after Indonesia and South Korea became the epicenter from October to December.¹¹ The epicenter, the country with the largest depreciation of the month, shifted from Thailand to Indonesia to South Korea, as shown in Figure 8.¹²

The floating of the baht on July 2, 1997, first prompted a change in the exchange rate regimes of Thailand's neighboring countries. On July 11, the Philippine peso was floated, and the intervention band of the Indonesian rupiah was widened to 12%. On July 14, the Malaysian ringgit was floated. There was heavy pressure on all Association of South-East Asian Nations (ASEAN) currencies on July 23–24, and again in the week of August 11. At

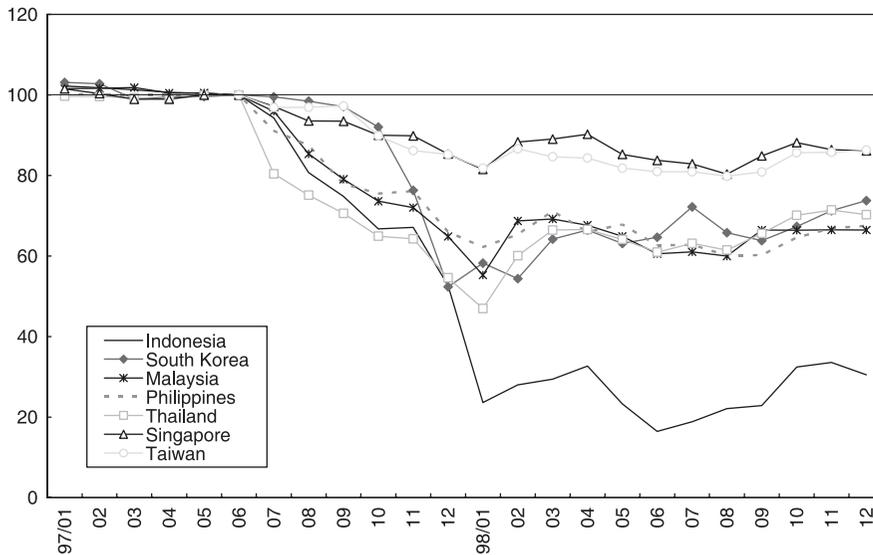


Figure 8 Contagion: Exchange rates from January 1997 to December 1998.

Sources: With the exception of Taiwan, the data source is as for Figure 1. For Taiwan, data are obtained from <http://www.cbc.gov.tw/EngHome/economic/statistics/monthly.asp>.

Note: The exchange rate in June 1997 is normalized as 100.

this point, the depreciation among the exchange rates of the ASEAN countries, including the Singaporean dollar, was reinforcing each other. The monetary authorities became increasingly concerned about what looked like competitive devaluations among their currencies that were forced by the market.

With these concerns in the background, discussions started in Asia about the establishment of a mechanism for supporting a country facing a liquidity crisis. For Thailand, a package was put together just in time. But, it was time-consuming and uncertainty remained about whether an IMF package for another country in crisis could be built in time. Time is essential in crisis management. If the foreign reserves of the region are pooled, or at least earmarked, to help each other, then putting together a financial support package would be much easier. Alternatively, if at least the share of each country's contribution was decided, negotiation would be easier. These considerations led to regional discussion of the idea of the Asian Monetary Fund, a mechanism of reserve pooling for use in the case of future crises in the region.¹³ The idea was proposed and discussed in several informal meetings between the end of August and mid-September, but met with opposition from the IMF, the USA, and China.¹⁴

In October, one big shock originating from the Hong Kong stock market occurred. Speculators simultaneously attacked the Hong Kong dollar and the Hong Kong stock market. Short-selling both the currency and equities, speculators were convinced that either the dollar peg would break, or the peg would be defended with high interest rates bringing down the equity prices. In either case, speculators would profit handsomely. Hong Kong defended the dollar peg by squeezing liquidity, but stock prices fell precipitously.

In fact, the shock wave from Hong Kong reached the major global stock markets, including the New York Stock Exchange. Until then, the US Treasury had been rather unsympathetic to the Thai crisis, as shown by the fact that the Treasury did not contribute any dollars to the bilateral contributions to the Thai package. This was in stark contrast to its attitude to Mexico a few years earlier. But, after the Hong Kong stock price decline affected the New York stock price, it suddenly became concerned about the turmoil in Asia.¹⁵ Contagion became a major difference between the Asian crisis and the Mexican crisis. In mid-October, the epicenter of the crisis moved from Thailand to Indonesia.

4.3 Indonesia

Indonesia suffered the most in the Asian currency crisis. Among the crisis affected countries in the region, Indonesia experienced the largest currency depreciation as shown in Section 2, the sharpest decline in output, and the severest social and political chaos. However, before the crisis started in Thailand, or even shortly after the baht floated, few predicted that Indonesia would be heading toward such an abyss. What went wrong in Indonesia is crucial in understanding how contagion occurred to relatively strong countries and how the IMF could help or not help a country with a complex political economy. An insider's view from Indonesia is provided by former Governor of Indonesia's central bank, Bank Indonesia, Djiwandono (2005), while examinations of the IMF's policy by its independent evaluation office, Independent Evaluation Office of IMF (2003), provide insights based on IMF internal documents.

It has been widely agreed that Indonesia entered into negotiations with the IMF when the Indonesian economy was still in a relatively strong macroeconomic and financial position.¹⁶ In fact, when Indonesia decided to ask for IMF assistance on October 8, the IMF responded with a welcome message in which the IMF regarded Indonesia's macro fundamentals as being "sound."¹⁷ Indonesia's current account deficits were of the order of 3% of GDP, as shown in Figure 9, as opposed to the 8% in Thailand. At the end of September, foreign reserves (minus gold) stood at \$US20 billion. This contrasts to the almost zero net foreign reserves that the Bank of Thailand had at the time of the baht's float, or the mere \$US5 billion of usable foreign reserves that the Bank of Korea would have at the beginning of December. Even after the Thai baht float, the Indonesian rupiah was depreciating at the same pace as the Philippine peso and the Malaysian ringgit. Stock prices on the Jakarta Stock Exchange did not fall in July and August. This was a normal reaction of stock prices to a moderate depreciation of the currency, since exporters can boost their profits.

The IMF put together a program with a reform plan for the banking sector and recommendations of tight fiscal and monetary policies. The agreement on the program was announced on October 31, 1997, and it was approved by the IMF Board on November 4. Based on the agreement, there was a series of interventions to increase the value of the rupiah. The Japanese authorities intervened five times to strengthen the Indonesian rupiah between November 3 and 18. The Singaporean authorities also intervened with the Japanese and the Indonesian monetary authorities.¹⁸

The IMF package of November 4 had a total size of \$US40 billion. The IMF contributed \$US10.1 billion (490% of quota), with the World Bank contributing \$US4.5 billion, and

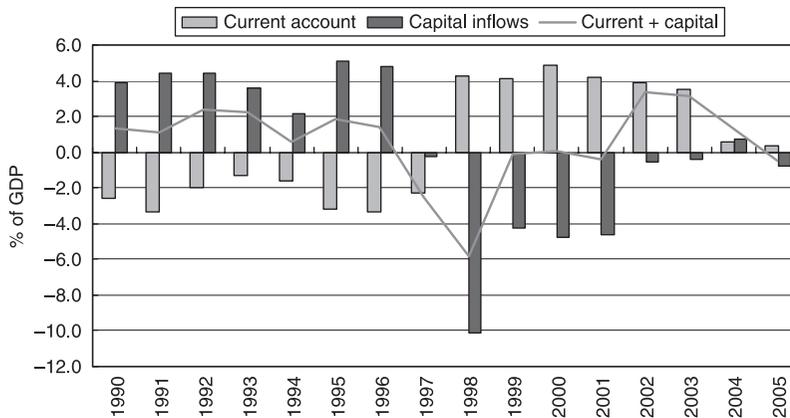


Figure 9 Indonesia's current account and capital inflows (as a percentage of GDP).

Source: IMF, International Financial Statistics online, September 2006.

the ADB \$US3.5 billion. Indonesia also contributed \$US0.5 billion from its own sources. This \$US18.5 billion were the resources to be disbursed first. Then, there was a bilateral package, called the “second line of defense,” that would kick in when the resources in the first line of defense had been all disbursed. Market participants were skeptical about whether the second line of defense would be ever used because it would usually take 3 years to disburse the IMF's standby credit. In terms of a lender-of-last-resort operation, this second line of defense was a step backward compared to the Thai package. In the Thai package, bilateral loans were disbursed with IMF (*pari passu* arrangement) tranche, so that the IMF assistance was automatically doubled, while in the Indonesian package bilateral loans were not disbursed, since it never reached the stage of the second line of defense. This second line of defense was just window dressing as was suspected by the market at the time of announcement.

One condition of the IMF program, or to be more precise a precondition (a “prior action” in the IMF jargon) for the program, received more attention than others. On November 1, 1997, it was announced that 16 banks were to be closed, effective immediately. Deposits were to be protected only up to a certain ceiling. Most likely this action was designed to show that Indonesia was taking tough actions a few days before the IMF Executive Board met to discuss the program for Indonesia.¹⁹

The Indonesian program seemed to go well for the first 2 weeks. The rupiah appreciated, and the economy seemed to be stabilized. However, three major problems emerged. First, within a few weeks the president's son reopened his bank branches under a different name by buying another bank for its banking license.²⁰ Market participants suspected that the president was either not fully informed of the significance of adhering to the IMF program for market confidence, or was not fully in control of his family and his country.

Second, depositors started withdrawing funds from banks and the wealthy started to shift their money abroad. Although being a step in the right direction, the closure of 16

banks, which was supposed to show the resolve of the Indonesian authorities, had several questionable features. The deposit cut for large depositors came as a surprise since there had never been such procedure before. Moreover, there were no clear criteria shown to indicate why the particular 16 banks were chosen, nor was any clear statement given on whether any more banks would be closed.²¹ The cutoff of the deposit guarantee was seen as having been chosen arbitrarily so that it could be lowered in the future.²² Therefore, the question of “which bank will be the next?” was unavoidable. Worried depositors started to withdraw their funds, and it made the weak financial system even more vulnerable. This contributed to capital outflows of both residents and non-residents.²³ In January, a full guarantee would have to be introduced in order to prevent the total collapse of the banking sector.

Third, macroeconomic conditions in the IMF conditionality were violated. Key features of the IMF conditions, namely a monetary tightening and high interest rates, could not be maintained. Monetary policy alternated between a tightening to maintain confidence in the rupiah, and a relaxation to support ailing banks.²⁴ The macroeconomic package of monetary tightening and fiscal tightening, aiming at a surplus of 1% of GDP, may have been too bitter medicine for the country.

In the second half of November, the rupiah lost all the gains it had made in the first half of November. Toward the end of November, the rupiah started a sharp decline. In early December, a rumor about the health of President Soeharto began as a result of the president cancelling his overseas trip. In December 1997, the IMF was quite busy. On the one hand, the IMF sought to contain the sharp decline in the Indonesian rupiah, and on the other hand, it sought to save the South Korean economy from falling into a default status (see Section 4.4). The depreciation of the rupiah continued in December, but so did the depreciation of almost all the other Asian currencies.

As explained earlier, the Indonesian crisis was multifaceted. For what went wrong in the first 2 months of the Indonesian program, those who put more blame on the IMF-led prior actions and conditionality tend to point to the 16 bank closures and excessively tight macro conditions, while the IMF places the blame on the Indonesian government in regard to its violation of the agreement with the IMF. For example, Independent Evaluation Office of IMF (2003) put an emphasis on the reversal of policies as a major cause of the failure of the November program: “Public confidence was undermined when the President’s family publicly challenged the bank closure and one of his sons effectively reopened his closed bank by transferring assets to another bank he had acquired. The government also reversed earlier decisions on projects that were to be delayed or canceled, including a power project involving the President’s daughter. Moreover, the government announced, apparently as the behest of the President, that no more banks would be closed” (p. 14).

So, why did Indonesia seek the IMF loans in the first place? Why did the IMF impose so many structural reforms as conditionality? Why did Indonesia fall into a full-fledged crisis despite its entry to an IMF program with relatively strong macro conditions and ample foreign reserves? According to Djwandono (2005), seeking IMF assistance was intended to build market credibility against a sharp depreciation that he thought was unwarranted for Indonesia. Hill and Shiraiishi (2007) argue that technocrats “tried to seize the opportunity offered by the 1997 currency crisis to persuade Soeharto to go to the IMF

and to introduce reform measures, but the move backfired because technocrats could not gain access to an ailing Soeharto who was shielded by his family member.”

The Indonesian situation became much worse in early January 1998. The IMF and the Indonesian government attempted to salvage the situation by agreeing to another Letter of Intent, more promises of reforms, on January 15, 1998. This time, the signing ceremony was played up as both President Soeharto and Managing Director Michel Camdessus appeared for ceremony. The IMF probably wished to have a direct commitment from President Soeharto as the IMF felt that many of conditionality provisions had not been implemented because of objections from Soeharto himself. It was regarded as an act to show the market visually that the president was committing himself to the IMF program, in response to criticisms that the president might not have been fully informed of the negotiations between Indonesia and the IMF, and what Indonesia committed to the IMF. However, the photo of the ceremony showing the Managing Director standing with folded arms and looking down on the president signing the agreement became probably the most famous photo of the Asian currency crisis, as symbolic evidence, falsely or truly, of the IMF ruling the Asian economies.²⁵

The January program had revised the macroeconomic projections and relaxed the fiscal target from a surplus of 1.3% to a deficit of 1% of GDP. But most attention was paid to the long list of structural reforms.²⁶ Even after the January 15 ceremony, the situation did not improve, as the market regarded that the promises were a tall order that would only lead to disappointment rather than being a reflection of a strong will. Indeed, there were 50 items in the Letter of Intent, some of which, many considered, were politically very difficult. The president himself was reported in the media to have said that signing the IMF program was one thing, implementing it was another.

Requiring a long list of structural reforms as conditionality became the issue in thinking about the role of the IMF in the currency crisis. It takes time, say 1–2 years at least, to implement and enjoy the fruits of structural reforms, while managing a currency crisis is a day-by-day operation. Therefore, a list of structural reforms is a promise and a commitment of the government toward progress to be implemented in the future, to which the IMF gives its seal of approval, and then disburses loans. If the market believes in this scenario, confidence will be restored. However, if any legislation toward reform is stalled or blocked in the parliament, or if any piece of the reform is contradicted by the words or actions of ministers or high-ranking government officials, then the market regards it as a broken promise, and the currency will be sold. The long, ambitious list is good in building confidence, but carries the high risk of having one item missed. The situation of promises and no delivery would become worse than the counterfactual of no promises and no action. Ironically, the January Letter of Intent was never presented to the IMF Board, because of the deteriorating macroeconomic situation, and the assumptions for the macroeconomic projections were violated.²⁷

The experience in Indonesia shows that the IMF and the Indonesian government lost the confidence game. Feldstein (1999) convincingly argues that the IMF should concentrate its advice on macroeconomic policies and whether or not to provide massive loans or to orchestrate lenders' rollovers in case of a pure liquidity crisis.

At the end of January, a blanket guarantee of bank deposits was introduced and the Indonesian Bank Restructuring Agency was created to take over the assets and liabilities of insolvent banks.

From January, the relationship between the Indonesian government and the IMF deteriorated quickly. Many of those who had negotiated with the IMF in the Indonesian team, including Bank Indonesia Governor Djiwandono, were dismissed and ideas that would not accord with the IMF recommendations were attempted. In the meantime, economic activities were stalled by continuation of a much depreciated level of the rupiah, and economic chaos led to a social and political unrest. Sometime in late January to mid-February, President Soeharto attempted to introduce a currency board system, a fixed exchange rate system with issues of domestic currency limited to the amount of foreign reserves. Djiwandono, Governor of Bank Indonesia, was fired on February 11, the same day that Finance Minister announced that the government would adopt the currency board, fueling a speculation that the governor was fired because of his opposition to the currency board system.²⁸ A currency board system, in general, is designed to be robust against volatility of capital inflows and outflows. The robustness of Hong Kong and Argentina's exchange rates against external shocks was credited to their having adopted a currency board system. However, the IMF was skeptical about President Soeharto's attempt to adopt a currency board system in Indonesia at that point in time. The robustness of a currency board system when the domestic financial system had lost credibility was not a tested idea. In the end, the currency board plan was abandoned.²⁹ The economic crisis became a social and political crisis in the spring of 1998. Frequent riots, some of which involved ethnic violence as well as unemployed workers' violence, marked this period. President Soeharto was forced to step down in May 1998.

Indonesia provides an interesting case of how a country with relatively large foreign reserves, but with a quickly depreciating exchange rate, could end up in a total political crisis despite having sought IMF assistance. Debates continue today about what went wrong and what could have been done better. Of course, it is difficult to imagine a counterfactual to Indonesia's history. One interesting counterfactual is Malaysia. Malaysia's macroeconomic conditions and policy responses were similar to Indonesia's when the crisis hit Thailand. The currency depreciated in response to the Thai baht depreciation. In the summer and autumn of 1997, both Indonesia and Malaysia introduced both monetary and fiscal tightening mimicking an IMF program. Later, Indonesia went into the IMF program and Malaysia did not. In the end, the economic and political damage Indonesia suffered was much worse than Malaysia.

After Soeharto resigned, he was replaced by Vice President Habibie in May 1998. What followed then were more political chaos and a slow economic recovery between 1998 and 2001. President Habibie was replaced by President Wahid in October 1999. President Megawati became president in 2001. The following discusses only a few of the economic reform milestones.³⁰ Susilo Bambang Yudhoyono became the first democratically elected president in October 2004. As a result of legislation passed in 1999, the central bank became independent. A conservative fiscal rule was introduced in 2003. In fact, fiscal deficits remained rather low, under 2% since 2000, even with the social and political unrest.

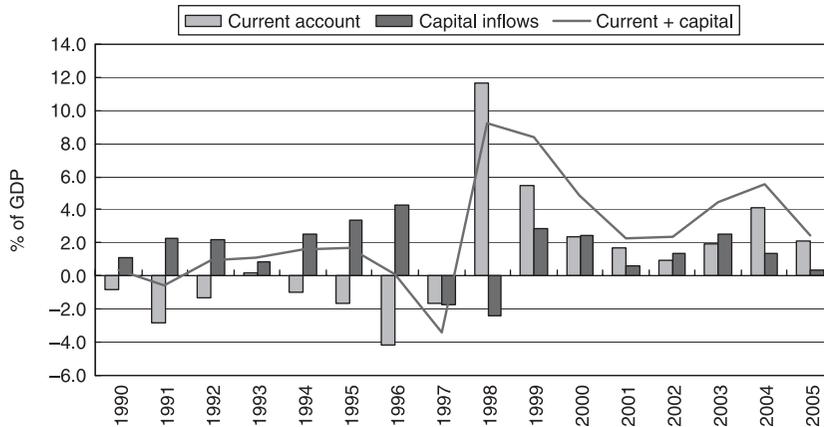


Figure 10 South Korea's current account and capital inflows (as a percentage of GDP).

Source: IMF, International Financial Statistics online, September 2006.

In general, the recovery process of the Indonesian economy was much slower than other crisis-hit Asian countries. Indonesia was also the only country among the Asian countries that suffered from high inflation in the wake of the crisis. Ito and Sato (2006) contains a comparison of nominal and real exchange rates, and a VAR analysis involving variables, including the nominal exchange rate, the money supply, and domestic prices. Ito and Sato fault the accommodative monetary policy in the wake of the currency depreciation for high inflation. As a result, in the recovery process, the real exchange rate appreciated because of inflation rather than an appreciation of the nominal exchange rate. This left external burdens rather high. However, the Indonesian economy has made a steady recovery since 2000. At the end of 2003, Indonesia “graduated” from the IMF program. That means that Indonesia decided not to draw the remaining funds from the IMF. In October 2006, all of the loans from the IMF were paid back in full.³¹

4.4 South Korea

By the mid-1990s, the South Korean economy had become the second most industrialized and advanced economy in Asia, and few expected the South Korean economy might fall into a crisis. Even when the South-East Asian currencies were depreciating quickly from July to October 1997, the Korean won, along with the Singaporean dollar and the New Taiwan dollar, had only depreciated slightly. Indeed, the macroeconomic performance was basically sound until several weeks before South Korea asked the IMF for financial assistance. As shown in Figure 10, South Korea's current account deficits in the years before the crisis were about 4% of GDP, a moderate level. However, the growth rate in 1996 exceeded 6%, although this was the result of slowing down from the 8% growth in 1994–1995.³² The amount of foreign reserves stayed above \$US30 billion until the end of October.

A few financial institutions, mostly related to industrial conglomerates, *chaebols*, failed earlier in the year, but they were considered not serious enough to develop into a

nationwide financial crisis.³³ Even as late as early November, very few, if any, had predicted that the crisis would be spreading to South Korea. Until mid-November, the Korean won had depreciated only by 20% compared with its end of June value (see Figure 3). The degree of depreciation was comparable to Singapore and Taiwan, and was much better than Thailand, Indonesia, Malaysia, and the Philippines. South Korea was remote from contagion at that point.

By mid-November, there were some signs showing that a crisis was about to spread to South Korea. Foreign investors suddenly started to refuse rollovers of loans to South Korean firms and financial institutions.³⁴ Why did foreign lenders suddenly become concerned about the future prospects of the South Korean economy? No one was questioning the solvency of many of the South Korean manufacturing firms and financial institutions, the South Korean government, or the South Korean economy. Many observers believed that foreign lenders saw a possibility that South Korea would exhaust its dollar liquidity if all of them demanded repayment at the same time. This logic was a typical case of herd behavior and a bank run.

As mentioned earlier, the state of macroeconomic soundness was very different among Thailand, Indonesia, and South Korea in mid-1997, but they all fell victim to a currency crisis. Ito (2000, table 8.7) shows that the three countries had one thing in common, that is, a high ratio of short-term bank borrowing (maturity of less than 1 year) to foreign reserves. It was revealed later that the ratio as of the end of June 1997, 2 days before the Thai baht float, exceeded 1.0 for the three countries: South Korea was the worst with a ratio of 2.1, followed by Indonesia (1.6), and Thailand (1.4). These numbers were even higher than in Latin American countries, such as Mexico (1.2), Brazil (0.8), and Argentina (1.3) at this point. This provides evidence that a high ratio of short-term bank debt to foreign reserves is a good proxy variable for financial vulnerability, particularly in the nature of a bank run. Later, in the debate over the sufficient level of foreign reserves, the amount of short-term debt became one of the criteria, later known as the Guidotti-Greenspan rule.³⁵ However, this rule of thumb was not known in 1997.

South Korea's foreign reserves started to decline in October, and the pace of decline accelerated in November. Not all these declines showed up in official statistics. The South Korean commercial banks needed dollars to pay back their loans and honor their corporations' requests for dollars. As major South Korean banks rushed to borrow dollars in the international markets, the premium for South Korean banks, in general, became so high that they simply could not borrow in the international market. Then, the Bank of Korea started to make dollar deposits with the overseas branch of South Korean commercial banks. This can be interpreted as a portfolio shift of foreign reserves; that is, under normal circumstances, a legitimate way of holding foreign reserves. However, dollar deposits made by the central bank with the commercial banks in November and December 1997 were quickly used to make repayments of borrowings from abroad. Therefore, the dollar deposits from the central bank on the liability side of commercial banks' balance sheets could not have been repaid to the central bank if the bank had demanded repayment. By the end of November, rumors that usable foreign reserves were far smaller than the official statistics suggested started in the market. The Bank of Korea also started to defend the currency by intervening in the spot and forward exchange rate market in order to moderate

the speed of the won decline. According to official statistics, foreign reserves declined from \$US30 billion at the end of October to \$US24 billion at the end of November, to \$US20 billion at the end of December. However, at the end of November, usable foreign reserves were basically exhausted. At this point, the only choices South Korea had were to let commercial banks default on their liabilities to foreign lenders; to obtain bilateral assistance from Japan and the USA; or to negotiate loans from the IMF. It became clear that the bilateral assistance would not come without an IMF program.

One difference between South Korea and Thailand in depleting their foreign reserves should be noted. Thailand lost foreign reserves in defense of a fixed exchange rate in both spot and forward markets, whereas South Korea lost foreign reserves in an attempt to moderate the decline of the exchange rate and prevent possible defaults by commercial banks. South Korea was already under a managed float, but the degree of the depreciation was not tolerable for South Korea, when the exodus of foreign capital started.

Why did the foreign banks rush to the “exit” in concert? First, contagion from other countries, especially the crisis in Indonesia, was obvious. Second, the depreciation of the South Korean won prompted foreign institutions to worry about the repayment ability of South Korean borrowers, so that it became a vicious circle of depreciation, concern about ability to pay, rush to exit, and so on. Third, the presidential election scheduled for December was regarded as another source of uncertainty. Presidential candidate Kim Dae-Jung, who was subsequently elected, had been regarded as a person who was less warm to foreign capital and the IMF (that proved wrong later).

The IMF, in close cooperation with the USA and Japan, crafted a program for South Korea in late November to early December. In a sense, it was a race against time, since a default by a South Korean bank would have only been a matter of time. The USA and Japan again refrained from bilateral liquidity support, except as a second line of defense that had been already proved to be ineffective in meeting short-term liquidity needs. However, the IMF had to put together a comprehensive program, aimed at structural reform of the South Korean economy. On the one hand, the IMF had to press the South Korean government for accepting drastic changes in trade policy, banking sector restructuring, capital market liberalization, labor market reform, and corporate governance reform. On the other hand, the IMF had to come up with a large amount of assistance in a hurry.

The IMF program of December 4 for South Korea had several innovations in terms of the lender-of-last-resort function. The time between an agreement with the South Korean government and approval by the IMF Board was the shortest in history. It reflected the emergency situation in South Korea. In addition, the ratio of the quota approved for South Korea was a record high (about 20 times of the quota), and the size of the IMF package at \$US57 billion when the second line of defense was included was the largest ever. Not only was the amount promised high, but the funds were disbursed quickly. The innovation in the South Korean program was to create and apply the Supplemental Reserve Facility to break the ceiling of the access limit. The package included an IMF contribution of \$US21 billion (1 939% of the quota), with the World Bank contributing \$US10 billion, and the ADB \$US4 billion. The first line of defense totaled \$US35 billion. The second line of defense came to about \$US20 billion, including Japan’s contribution of \$US10 billion. As

with the Indonesian program, concerns remained about when and under what conditions the second line of defense could be triggered, and the second line of defense was, in a sense, window dressing making the program look larger than the real resources behind it.³⁶

Conditionality for this unprecedented amount of financial assistance was also extensive.³⁷ Tight monetary policy (removing the cap on the interest rate) and a slight fiscal surplus (0.25%) were the standard combination of IMF prescriptions for the crisis. Similarly to Thailand and Indonesia, the wisdom of requiring a fiscal surplus in the middle of a crisis that had not originated from fiscal deficits may be questioned. The financial sector reform was universally regarded as necessary. The failing *chaebols* and mounting non-performing loans at financial institutions had already existed before the crisis and significantly worsened during the crisis.³⁸ In addition, a long list of financial sector reforms was attached as a condition. Trade liberalization and capital account liberalization were also pushed. Labor reform was also identified as crucial. It might look strange that a country under severe pressure of capital outflows and depleting foreign reserves has to undergo reforms to open its capital accounts and liberalize its imports. However, the program was regarded as a comprehensive plan to change the South Korean economy to become a robust market economy, not just a plan to get over a liquidity crisis.

Despite the unprecedented size of the financial assistance from the IMF, the market was not impressed by the announcement of December 4 program, and the rush by investors for the exit continued. The won depreciated from 1 172 to the dollar on December 4, to 1 229 on December 5, to 1 715 on December 12. Although the won appreciated to 1 437 on December 16, it depreciated again to 1 962 by December 23.³⁹ The won market was melting down, and South Korea was running out of reserves even with the unusually large IMF program and quick disbursement.

There may be several hypotheses to explain why the December 4 program was ineffective. First, the seal-of-approval function of the IMF was lost by this time. Second, within a few days, it became known that the size of assistance was smaller than needed.⁴⁰ The fact that the exchange rate continued to depreciate suggests that it was more of an IMF confidence problem than the second explanation.

On December 24, the IMF and G7 decided to apply jawboning, verbal persuasion by the regulators, directed at the major commercial banks in not only the G7 countries but in all countries, and asked the banks to roll over their outstanding balances to South Korea for at least the following 1 month. This was an unusual step for the IMF, but it was probably the only option at that point in time to avert the default of South Korean commercial banks and major corporations on their dollar liabilities. The South Korean won finally stopped declining, and appreciated slightly to 1 691 by December 31, 1998. Without the front-loaded program with its immediate disbursement by the IMF in early December and G7-coordinated standstill (coordinated rollover) on December 24, South Korean banks and corporations certainly would have defaulted on their loans from foreign banks.

The immediate problem of dollar liquidity was eased and postponed by the standstill on December 24. However, several problems had to be addressed very quickly. First, a medium-term solution had to be found to finance the external liabilities. Second, as a part of the IMF conditionality, structural reforms had to be pushed forward.

The main plan for extending the maturity of external liabilities was the issuance by the South Korean government of medium-term dollar-denominated bonds to replenish the South Korean foreign reserves that could be used for private sector repayment of dollar-denominated loans.⁴¹ The South Korean government first negotiated a comprehensive agreement with creditors on January 29, and then issued medium-term bonds on April 8. By these actions, South Korea was able to extend the average maturity of external liabilities.⁴² The usable foreign reserves increased from virtually zero in December 1997 to more than \$US30 billion at the end of April, to \$US43 billion by mid-September. The won recovered from its weakest point, 1 950/dollar in December 1997, to the level of 1 350 to 1 400/dollar in mid-September 1998. The dollar liquidity problem was over by September.

Whether the IMF should have attempted to ask banks to roll over the debts in the first place in the December 4 program is debatable. If the financing gap had been known to exist and the lender of last resort operation was politically difficult, why not ask private sector lenders to roll over debts – which later would become successful.

The South Korean economy had to go through structural reforms in accordance with the IMF program. At the end of 1997, 12 banks were undercapitalized (i.e. less than 8% Basel capital adequacy ratio). After examinations of their rehabilitation plans by the Financial Supervisory Commission, five banks were determined to be non-viable and suspended. Good assets were purchased and assumed by healthy banks, and substandard assets were purchased by the Korea Asset Management Corporation (KAMCO), a public corporation reorganized to deal with non-performing loans.⁴³ In addition, the Korea Deposit Insurance Corporation covered any shortfalls in the net worth of transferred asset and liabilities, because deposits were fully guaranteed. In early 1998, the National Assembly approved a 32.5 trillion won budget for KAMCO for the purchase of non-performing loans, and 31.5 trillion won for the resolution fund of the Korea Deposit Insurance Corporation for recapitalization and depositor protection. Government money was injected to strengthen capital of those banks that were weak but for which rehabilitation was possible. Basically, weak financial institutions were identified and closed, and non-performing loans were fiscalized for quick resolution. At the end of 1997, there were 2 063 financial institutions, including 33 banks, 30 merchant banks, 34 securities firms, 55 insurance companies, 8 investment trust companies, 230 mutual savings and finance companies, and 1 653 credit unions. By the end of September 1998, failed financial institutions included 5 banks, 16 merchant banks, 6 securities firms, 4 insurance companies, 2 investment trust companies, 22 mutual saving and finance companies, and 39 credit unions. The quick resolution of the financial sector problem was a success story of the South Korean crisis.

With the financial sector going through restructuring, several large companies went bankrupt and output activity shrank substantially. The unemployment rate increased sharply from an average of 2.6% in 1997 to a peak of 7.6% in July 1998. Some of the unemployed lost their apartments and became homeless or went back to the agricultural sector if their parents were farmers. Unlike Indonesia, social protests mounted but did not materialize into a political chaos. Although the GDP growth rate became negative in 1998, the recovery from the recession was quick. Once the financial fragility was addressed and export-driven economic growth resumed, economic activity recovered.

In retrospect, several important points have been raised regarding the South Korean crisis. First, researchers have debated the relative weights of the causes of the South Korean crisis between vulnerability of the domestic banking sector and contagion from the Thai and Indonesian crises. Second, policy-makers have debated whether the IMF should have increased the size of its lending as a lender of last resort or whether the IMF should have tried the standstill of international lenders, the program of December 24, earlier, for example, as a replacement of December 4 program.

The South Korean case was probably almost a pure form of a liquidity crisis. Lenders and speculators sensed the probability of South Korea running out foreign reserves was high, and started to sell the won at any rate. When the won started to slide, speculative selling gathered momentum. Speculation was most effective because of uncertainty about the outcome of the presidential election. However, South Korea experienced a sharp recovery in 1999 and 2000. Foreign reserves increased to \$US96 billion, triple the amount of pre-crisis level in October 1997.

Lee and Rhee (2007) describe the recovery process of the South Korean economy from the crisis. South Korea recovered from the crisis very quickly, and eventual damage to the economy seemed to be less than in other crisis-hit countries. The sharp fall of the exchange rate seems to be a blip in the picture, and current account surpluses in 1998 and 1999 were impressive. Lee and Rhee (2007) attribute these strong recoveries to fast resolution of problems in the financial sector. Table 1 summarises the main features of the crisis and the IMF program for the four countries – Mexico, Thailand, Indonesia, and South Korea.

4.5 The V-shape recovery, except Indonesia

The Asian economies in 1998 still experienced turbulence. Although the decline of their currencies stopped, the real activities continued their stagnation. By the end of June 1998, 12 months after the Thai devaluation, there were three groups of currencies in terms of the degree of their depreciation (recall Figure 8). The Indonesia rupiah was still at about one-sixth level of its peak value. Singapore and Taiwan managed to rebuild confidence in their currencies that appreciated from the trough in January to the level that was no more than 20% from the pre-crisis level. The exchange rate of the other countries, including the Thai baht, the Malaysian ringgit, the Philippine peso, and the South Korean won converged to levels of 35–40% depreciations compared to their peak values. However, the currency values were more or less stabilized, and the sense of “the worst is over” was felt throughout the region.

Because of the financial turmoil in Russia, a hedge fund in the USA, and Brazil (see next section), global financial markets remained volatile in 1998, although the Asian currencies started to appreciate. Indonesia was the last economy to be stabilized after the resignation of President Soeharto in May 1998. Still, Hong Kong and Malaysia needed some drastic actions to keep their markets shielded from speculative forces.

When it detected a sign that speculators were attacking both the currency and the equity markets simultaneously, the so-called double play, the Hong Kong Monetary Authority decided to intervene in the stock market through outright purchases of equities as well as defending the currency. Despite some criticism that the central bank should not

purchase stocks, the Hong Kong Monetary Authority argued that it was the most effective way to fight speculative attacks involving selling short both the currency and stocks.

On September 1, 1998, Malaysia imposed controls on capital outflows and returned to a fixed exchange rate to the dollar. Malaysia argued that it was necessary and important to have stability in the uncertain environment.⁴⁴ It was quite unusual for an emerging-market country to impose new outflow controls even in the crisis.⁴⁵

In 1998, almost all the Asian economies, except China, had negative growth rates because of prolonged restructuring of their financial sectors and political turmoil. Although the magnitude varied from one country to another, inflation rates and unemployment became higher across the region. In some countries, most notably Indonesia, strong protests and social riots in the cities were observed. However, since 1999, the Asian countries have made an impressive recovery.⁴⁶ Recovery was partly fueled by strong export growth that was made possible by the large depreciations of their exchange rates. The recovery of output growth in almost all Asian economies became evident in 1999 and 2000 (see Figure 1 for the V-shape recover and the earlier associated discussions). The fact that all of the Asian countries made a recovery in 1999–2000 is consistent with a view that the crises were due to liquidity shortages that were caused by the herd behavior of investors, namely, speculation by very large hedge funds. Contagion from other countries is also suspected.

South Korea repaid all of its IMF loans ahead of schedule in August 2001. Thailand repaid its IMF loans ahead of schedule in July 2003.⁴⁷ Indonesia required the longest period to repay all its IMF loans in October 2006. This is actually a rare achievement of the IMF programs in crisis management.

Grenville (2007) examines the details of the process of the recovery process of Asia through structural reforms. Effectively, all the scars of Asian currency crisis were healed by end 2006. The level of foreign reserves became quite large in all Asian countries. Many policy-makers in the region attribute this phenomenon as a “self-insurance” not to fall into a crisis again.

5. Post-Asian Crises

In the post-Asian crisis period, there were four major currency crises. In 1998, Russia and Brazil fell into a crisis and required IMF assistance. Russia experienced pressure on its currency because of large fiscal deficits, financed by high-yield government bonds (GKO), in late spring to summer of 1998. Many investors grabbed GKO with 30 – 40% interest rates, believing a G8 country would be bailed out by the IMF if necessary, thus this was dubbed a “moral hazard play.” In July, Russia asked for an IMF program that allowed the fixed exchange rate to continue. However, financing lasted only 1 month and Russia defaulted on its GKO in August. Many academic observers criticize the original July program as having been too soft, whereas market participants were upset by the default of sovereign bonds issued by one of the G8 members. Similarly, the Brazil program of November 13, 1998, allowed a crawling peg to continue despite large deficits, but it collapsed on January 15, and Brazil moved to a float.

Table 1 Comparison of four International Monetary Fund programs

| | Mexico | Thailand | Indonesia | South Korea |
|--------------------------|--|--|--|---|
| Height of crisis | December 20, 1994–March 1995 | July 2, 1997–January 1998 | October 1997–mid-1998 | November 1997–January 1998 |
| Macro financial problems | Current account deficits; weak banks | Current account deficits; bubble burst Weak finance companies | Vulnerable banks and NPL | Overinvestment of <i>chaebols</i> |
| External liabilities | <i>Tesobonos</i> | Bank borrowing | Corporate borrowing | Bank borrowing |
| Forex reserves | Lost before exit from peg. Not disclosed | Lost in net position Before exit from peg | Did not lose them | Lost in usable form. All lent to commercial banks |
| Trigger | Capital outflow | Speculative attack | Capital flight and bank run | Refusal of rollover |
| Uncertainty | Information on <i>tesobonos</i> balance and forex reserves | Forward position of BoT And NPL resolution in weaker financial institutions | Corporate debts and external liabilities Crony capitalism | Usable forex reserve and forex reserves |
| Political risk | Presidential election December 1994 | Weak coalition | Presidential election (March 1998) | Presidential election (December 1997) |
| Financial liberalization | 1980s, liberalize foreign currency deposits | 1990s, liberalization (especially BIBF 1993) | Liberalized long time ago | Remain some |

| | February 1, 1995 | August 20, 1997 | November 5, 1997 Additional, January 15, 1998 | December 4, 1997 Additional December 24 |
|---|---|---|--|---|
| IMF program (Board approval) | | | | |
| IMF size (\$US billion) | Total 51.6 | Total 17.2 | Total 40.0 | Total 57.0 |
| Details: IMF contributions and pledge (not necessarily disbursed later) (\$US billion) | IMF, 17.8 (689% quota) WB, 1.5 IADB, 1.3 BIS, 10.0 USA, 21.0 | IMF, 3.9 (505% quota) WB, 1.5 ADB, 1.2 <i>Pari passu</i> Japan, 4.0 China, Australia, Hong Kong, Malaysia, Singapore, 1.0 each South Korea, Indonesia, Brunei, 0.5 each | IMF, 10.1 (490% quota) WB, 4.5 ADB, 3.5 Indonesia, 5.0 Second-line Japan, 5.0 Singapore, 5.0 USA, 3.0 Australia, 1.0 Malaysia, 1.0 Brunei 1.2 and others 16.2 | IMF, 21.0 (1 939% quota) WB, 10.0 ADB, 4.0 Total 35.0 Second-line Japan, 10.0 USA, 5.0 Europe, 5.0 |

Note: Author's documentation from various sources.

ADB, Asian Development Bank; BIBF, Bangkok International Banking Facility; BoT, Bank of Thailand; Forex, foreign exchange; IADB, Inter-American Development Bank; NPL, non-performing loan; WB, World Bank.

Turkey fell into a crisis in the fall of 1999 and had an IMF program, again with a crawling peg arrangement. The crawling peg with disinflation worked for about a year, but the crisis came in November 2000, and, despite another program in December 2000, the exchange rate had to be floated in February 2001. The last of the series of the crises occurred in Argentina in late 2001.⁴⁸ The convertibility plan, setting 1 peso equal to \$US1, had worked well until 1999, then stresses started to show in 2000 and 2001. The fixed exchange rate collapsed on January 6, 2002, despite an IMF program in September 2001. The sovereign debts of Russia and Argentina were defaulted on at the time of their abandonment of the fixed exchange rate. The IMF lent support to defending the exchange rate regime in the post-Asian crises and failed, while the IMF encouraged free float in the Asian crises.

It was remarkable that the IMF, which commended Indonesia, South Korea, and other Asian countries for adopting flexible exchange rates in response to the Thai float of its exchange rate, suddenly adopted programs that did not force a country to devalue its currency as a part of the IMF's conditionality. Many complained that the IMF suddenly became "soft" by not requiring necessary steps but instead prolonging unsustainable policies and bailing out investors.⁴⁹ One explanation for why the IMF did not require depreciations for the post-1996 crisis countries is that the financial institutions and systems in Asia failed massively because of the sharp currency depreciations. According to this view, the IMF wanted to stop the depreciations or at least buy time before depreciations to protect the financial system, even if that meant that investors and domestic residents who wanted to flee the country could do so at an overvalued rate (before the depreciation). But, supporting a fixed exchange rate where there is no chance that the rate can be sustained is not advisable. Were those countries – Russia, Brazil, Turkey, and Argentina – stronger in fundamentals, that is, fiscal positions, export competitiveness, and inflation, than the Asian countries of Thailand, Indonesia, and South Korea? If the answer is no, the IMF must have learned precisely the wrong message.

Russia and Argentina defaulted on their sovereign debts in 1998 and 2002, respectively. When the IMF refused to provide additional resources after the IMF first supported the fixed exchange rate regime, each country declared it could not repay their government bonds in full. In the case of Russia, the Russian bonds were traded for several months before the August 1998 default at substantial premiums with up to a 40% annual return.

The key element of the IMF programs for Russia, Brazil, Turkey, and Argentina, the fixed exchange rate (nominal or real), collapsed within several months after their respective first program in 1998 to 2001. Russia and Argentina fell into effective default on their external liabilities. An irony is that the IMF imposed tight fiscal policy and long lists of conditionality to countries that probably did not need these conditions, while it allowed the post-Asian-crisis countries to continue a fixed exchange rate, which failed only a few months later.

6. Concluding Remarks

There is still widespread, persistent resentment against the IMF in Asia. Repaying IMF loans early by South Korea, Thailand, and Indonesia was partly motivated by attempts to

earn political points. Many Asian countries have accumulated large amount of foreign reserves, surpassing their pre-crisis peaks and reaching very high levels even when imports, GDP, or their short-term liabilities are taken into consideration. The phenomenon is often termed “self-insurance,” implying that the countries do not wish to rely on the IMF in the future even as a last resort lender. Whether the Asian financial systems in recent years have become stronger is examined in Turner (2007).

Not only the three IMF program countries but Russia, Brazil, and Argentina repaid all their IMF loans, leaving Turkey as the only large borrower from the IMF as of the end of 2006. Ironically, the crisis-free world means a financial crisis at IMF as not enough revenues are generated for operational expenses. This prompted a search for ways to fund the IMF's regular operational expenses by other sources in the medium term. So, the concerns of the world and the IMF now are quite different from those of 10 years ago when the Asian crisis occurred. Some people feel that it is a safer world, at least in Asia, now.

The IMF also lost credibility as an institution that could give a seal-of-approval effect to financial markets to stop capital outflows. The real power of stopping a crisis seems to be either a massive disbursement of financial resources from the IMF and friendly bilateral sources or voluntary standstill.

This paper did not deal with issues surrounding the governance of the IMF and various reform proposals, which were topics of Eichengreen (1999) and Kenen (2001) to name a few. This will be left as an area for future research.

In summary, many believe that the Asian crisis was a “liquidity crisis” rather than a “solvency crisis” with fundamental structural problems. The recent rises of foreign reserves are not limited to Asian countries. Oil-producing nations and emerging market economies in other regions are also increasing their foreign reserves beyond what is considered to be sufficient as a buffer against a currency crisis. The world seems to be entering a stage where the IMF has been marginalized in crisis prevention, due to self-insurance by many countries. The budget of the IMF is squeezed because few countries are borrowing from the IMF.

Notes

- 1 The general topic of the Asian currency crisis has been covered by many books. To name a few, see Goldstein (1998), Montes (1998), Hunter *et al.* (1999), Ito (1999), Haggard (2000), Woo *et al.* (2000), and Rakshit (2002). Stiglitz (2002) contains some harsh criticism of IMF.
- 2 See Young (1992, 1994, 1995) and Krugman (1994) for the view that the Asian countries were investing too much too fast, so that their total factor productivity growth rates were not that high in the 1980s.
- 3 See, for example, International Monetary Fund (1995) for details of the events and an analysis of the Mexican crisis.
- 4 See Henning (1999) for the nature of this Fund and the controversy surrounding its use.
- 5 When the USA gave up on its unilateral assistance to Mexico, it asked the IMF to increase its assistance to Mexico beyond the usual access limit of 300%. Michel Camdessus, the then Managing Director of the IMF, promised an extra \$US10 billion at the end of January to the USA (Rubin, 2003; p. 23). Other G7 countries were not pleased as the USA and the IMF decided to

- make an exception without consulting with them (Rubin, 2003; p. 24). When Camdessus tried to explain the \$US10 billion as a bilateral contribution, Rubin refused the explanation, and forced him to agree that the \$US17.8 billion was from IMF resources. (Rubin, 2003; p. 30). It was the USA that was pushing the IMF to bend its internal rule to increase its assistance to Mexico. The USA decided to use the Exchange Stabilization Fund to overcome objections from the Congress to provide assistance to Mexico.
- 6 See also Sussangkarn and Vichyanond (2007) for an analysis of what triggered the crisis (Section 2), what made the crisis worse (Section 3), and the lessons of and reforms after the crisis (Section 4).
 - 7 At the height of the speculative attack in May, the Bank of Thailand lost \$US10 billion in 1 day. See Nukul Commission (1998) and Ito (2007) for further details.
 - 8 Foreigners needed baht to carry out their end of forward contracts. As the premium for baht cash went up in the offshore market, foreign institutions with forward contracts started to scramble for the baht. The regulation allowed foreigners to take baht out of the country if it was earned from sales of the assets in Thailand. Foreigners started to sell securities and took the baht out of the country and accumulated them in the offshore market in preparation for the settlement of forward contracts. The premium in the offshore market subsided by the end of June. The Bank of Thailand could not “squeeze” foreigners further for the baht cash.
 - 9 The IMF and Japan asked and expected that foreign banks would maintain their outstanding loans to Thailand.
 - 10 Non-performing loans that had been accumulated in banks and finance companies – non-bank financial institutions – became a serious issue for the stability of the financial system. At the time of the August IMF program, non-performing loans were said to be estimated at 11% among banks and 13% for finance companies. The Financial Institutions Development Fund, the liquidity facility at the Bank of Thailand, had already provided about 8% of GDP in support to keep these institutions afloat. By the time of the IMF program, the weakest 58 finance companies – 28 in January and 28 in June – had been suspended. In December 1997, 56 of them were closed after due diligence.
 - 11 See Ito and Hashimoto (2005) for a detailed daily analysis of which currency led the currency decline in order to identify the epicenter of the shock.
 - 12 Figure 8 provides a snapshot of the data in Figure 3 over the period January 1997 to December 1998.
 - 13 Sources told the author that a high-level official in the Japanese Ministry of Finance advocated an institution in Asia, to be called the Asian Monetary Fund (AMF), as early as September 1996, partly predicting a crisis in Asia and partly reacting to the Asian-BIS proposal by Fraser (1996). The official predicted that a large-scale operation by the IMF would not be possible if an Asian country fell into a crisis. It was proposed that the AMF be established by an IMF-type of quota system based on the economic strengths of the countries in Asia, and that the AMF should be established as a complement to the IMF and BIS.
 - 14 In September to November 1997, articles on the AMF appeared several times in Japanese newspapers, including the *Nihon Keizai Shinbun*, September 29, 1997, and the *Asahi Shinbun*, September 23, 1997.
 - 15 Rubin (2003; pp. 222–223) describes how he became much more concerned after the stock price decline affected New York: “Investors’ alarm showed in Hong Kong, where the Hang Seng index . . . lost 23 percent of its value over four days, starting on October 20. . . . On October 27, the Dow dropped 554 points, to 7161, before the New York Stock Exchange suspended trading in advance of the closing bell.”

- 16 Djiwandono (2005; pp. 63–73) contains details of the thinking on the Indonesian side and the negotiations between Indonesia and the IMF in October and November, 1997. Although Djiwandono (2005; p. 72) emphasizes that he wanted to have a “precautionary” program without strict conditionality, when it became a program it was not a precautionary one. The Independent Evaluation Office of IMF (2003; p. 12, fn. 3, and p. 13) explains that legally there was no difference between a precautionary program where the country expresses no intention to draw on the loans, and a regular program, a Stand-By Agreement, and that the Indonesian side switched from a precautionary one to a regular one.
- 17 Michel Camdessus stated that “the IMF strongly supports the approach that has been followed by Indonesia, which sees this as an occasion to strengthen its economic policies even if fundamentals are basically sound” (IMF, 1997).
- 18 Japanese authorities bought Indonesian rupiah and sold US dollars to the value of 39 billion yen on November 3, 11 billion yen on November 5, 16.6 billion yen on November 6, 2.3 billion yen on November 17, and 0.4 billion yen on November 18. These interventions were a major reason behind the rupiah appreciating from 3 700 to the dollar to 3 200 to the dollar in these weeks. Djiwandono (2005; p. 89) suspects that these intervention efforts to prop up the value of the rupiah ended because the IMF told Japan and Singapore to stop them.
- 19 Ito (2007) contains details of the IMF program of November 4, and the precise language of the key decision to close the 16 banks. On the controversy over the question of whether the President knew that the list of banks to be closed would include those of his son and relatives, see Djiwandono (2005).
- 20 Djiwandono (2005; pp. 109–110) gives the following detailed account: “The adverse market reactions came after an outburst of irrational reactions from owners of two of the closed banks who sued the Minister of Finance and the Governor of Bank Indonesia, and public suspicion about the purchase of Bank Alfa by a former owner of a closed bank. Both cases involved President Soeharto’s family: Mr. Probosutedjo, Soeharto’s stepbrother and major owner of Bank Jakarta, and Mr. Bambang Trihatmodjo, Soeharto’s son and minor owner of Bank Andromeda, who acquired Bank Alfa.”
- 21 The lack of any public explanation is admitted by Djiwandono (2005; p. 129).
- 22 Those who de-emphasize the seriousness of the bank closures point out that the 16 banks were relatively small having no more than 3% of assets of all Indonesian banks, and that the ceiling of 20 million rupiah on the deposit guarantee for each deposit account was rather high. However, they may have been rather insensitive to depositors’ concerns and subsequent actions.
- 23 This is a standard interpretation (see, for example, Lindgren, 1999; box 8).
- 24 Djiwandono (2005; p. 112) succinctly describes the situation: “The dilemma facing us was two-fold: on the one hand, the IMF kept asking Bank Indonesia to keep its promise to tighten the monetary stance in line with targets of monetary growth with high interest rates, on the other hand, President Soeharto kept asking Bank Indonesia to reduce the lending rate and to ease bank lending.”
- 25 The incident is described as follows: “The ceremony, intended to demonstrate the commitment of President Soeharto to the program, turned out to be a public relations disaster. The much publicized photograph of the President signing the letter of intent (LOI) under the gaze of the Managing Director became the subject of hostile comment as exemplifying a humiliating loss of sovereignty” (Independent Evaluation Office of IMF, 2003; p. 15, fn. 9).
- 26 The structural reform agenda included items that are not typical of IMF surveillance items. It was said at the time in policy circles in Jakarta that the list was grabbed by the IMF team off the shelf of the Jakarta office of the World Bank. Independent Evaluation Office of IMF (2003; p. 15)

- confirms the rumor: “The World Bank’s Jakarta office . . . was actively involved in designing the conditionality on structural reform in the revised program.”
- 27 Independent Evaluation Office of IMF (2003; p. 15) described as follows: “The January program was never presented to the Executive Board because it failed to halt the collapse of the exchange rate. The rupiah continued to depreciate to levels that made the revised budget targets almost immediately irrelevant.” This sentence sounds as if the reason for the continued fall of the exchange rate was not the failure of the Program. The reasons for the sharp fall of the exchange rate after the announcement of the program must be examined carefully.
- 28 See Djiwandono (2005; pp. 9–12) for his side of the story of his dismissal.
- 29 The currency board system was proposed to Indonesia by Professor Steven Hanke. Djiwandono (2005; pp. 187–196) describes why Hanke was invited to become an adviser, how the IMF and the G7 countries opposed the proposal, and how the idea was dropped suddenly.
- 30 Hill and Shiraishi (2007) contains a detailed description of events in this period.
- 31 The original schedule stipulated that repayment would not be concluded until 2010. See announcement by IMF: <http://www.imf.org/external/np/sec/pr/2006/pr06215.htm>, and see also announcement by the Bank Indonesia, http://www.bi.go.id/web/en/Siaran+Pers/sp_85506.htm.
- 32 Independent Evaluation Office of IMF (2003; pp. 16–17) also agrees that the macro fundamentals in South Korea were “in robust health.”
- 33 Before October 1997, six out of the top 30 *chaebols* failed. Hanbo (number 14) failed in January and Kia (number 8) failed in July. See Cho and Hong (1999; table 9) for details.
- 34 According to Cho and Hong (1999; table 7), the rollover rate dropped from an average of 86.5% in October to 58.8% in November, to 32.2% in December 1997.
- 35 See Greenspan (1999). That is, an emerging market economy should have foreign reserves that exceed its short-term debts. An earlier threshold for the safe level of foreign reserves was the equivalent of 3 months of imports. Ito (2000b) was originally presented at a conference in Cambridge on February 20–21, 1998.
- 36 Independent Evaluation Office of IMF (2003; p. 19) stated that “the second line of defense was a controversial element in the program.” It further explained that “[t]his presentation was a relatively late decision responding to the instruction conveyed to the staff that the program should not rely on the instructions conveyed to the staff that the program should not rely on this source of financing. The staff therefore arbitrarily reduced the financing gap by increasing the assumed rollover rate for short-term debt to unrealistically high levels. In this respect, the program as presented was clearly underfinanced, although this fact was not explicitly acknowledged.”
- 37 The extensive list of structural reforms negotiated under the ticking clock of depleting foreign reserves was regarded by many South Korean policy-makers and academics as negotiations conducted with a knife at their throat. No academic writing on this point is available, but the popular press in South Korea was full of these types of stories, and many policy-makers have privately expressed their bitter feelings.
- 38 See Claessens *et al.* (1999) for an early description and assessment of these reforms. The sense of fast reform in the crisis has two aspects. It is a window of opportunity that would break politically powerful vested interests, whereas it may close down some of the companies that “would be completely viable under normal circumstances” (Park, 1999; p. 209).
- 39 See Ito (2000a) for more a more detailed examination of exchange rate movements before and after the IMF program using the event analysis technique.
- 40 Independent Evaluation Office of IMF (2003; p. 19) states that “[t]he initial market response was moderately positive, but after a few days the situation took a turn for the worse. Confidential

program documents, leaked to the South Korean press, revealed the critical data on South Korea's reserves and short-term debt, which the IMF and the authorities had been keeping from the markets for fear of damaging confidence." This is again strange. The argument put forward by the USA at the time of Thai disclosure of the size of its forward contracts was that it was impossible to keep the key statistics secret. It will lose confidence when it becomes known. If that argument was used in Thailand, it should have been applied to South Korea. If it was feared that confidence would be damaged, the size of assistance should have been raised.

- 41 In mid-January, a US investment bank suggested to the South Korean government that it issue fixed-rate long-term bonds with a wide spread at the time. However, the South Korean government insisted on better terms because the situation was a short-term liquidity problem and only a short bond suffices to bridge the existing debts to the future earning. What occurred turned out to be consistent with the South Korean government scenario.
- 42 According to Korea (1998), the total external liabilities at around \$US150 billion barely changed between the end of December 1997 and July 1998. However, short-term debts decreased from \$US68 billion to \$US38 billion, and long-term liabilities increased from \$US86 billion to \$US114 billion.
- 43 KAMCO was established in April 1962 as a development agency. In November 1997, it was reorganized with the special function of purchasing non-performing loans. In April 1999, KAMCO was authorized to function as a bad bank.
- 44 Jomo (2001; chapter 7) contains a description of the debate over the controls imposed in September 1998.
- 45 Some observers believe that outflow controls were imposed in anticipation of the arrest the Deputy Prime Minister a day later that might prompt capital outflows as investors panicked because of increased political uncertainty.
- 46 Many regarded the recession in 1998 as being severer than deserved and there was no hope of a V-shape recovery. See, for example, the 1998 writing of Park (1999; p. 207): "It was expected that after the IMF programs were initiated the patterns of adjustment in these countries would follow a 'V' shaped recovery, but with the passage of time, it appears that the performances are more likely to resemble the letter 'L' with long drawn-out floors. Unlike Mexico in 1994 and 1995, the East Asian countries are going to suffer a deep, sharp shock with long-lasting effects."
- 47 See <http://www.imf.org/external/np/sec/pr/2003/pr03131.htm>.
- 48 See Mussa (2002), Independent Evaluation Office of IMF (2004), and Dominguez and Tesar (2005), for overviews of the crisis in Argentina.
- 49 See De Gregorio *et al.* (1999; pp. 64–65) for a criticism of the IMF's handling of Russia. See Blustein (2001; pp. 346–348) for complaints from Europeans and the Japanese about the IMF's program for Brazil. Independent Evaluation Office of IMF (2004; p. 54) states that two Executive Board member abstained in the decision relating to the September 2001 program.

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