<table>
<thead>
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<th>Title</th>
<th>The Asian Crisis and the Prescriptions by the International Monetary Fund</th>
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<tr>
<td>Author(s)</td>
<td>Aramaki, Kenji</td>
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<tr>
<td>Citation</td>
<td>経営と経済, 79(2), pp.37-65; 1999</td>
</tr>
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<td>1999-09-24</td>
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The Asian Crisis and the Prescriptions by the International Monetary Fund 1)

Kenji Aramaki

Abstract

Asian economies are yet to recover from the Asian crisis ignited by the sharp depreciation of the Thai baht in July 1997. Most of the affected economies either have bottomed out or are bottoming out this year but we need to wait for next year or even later for those economies to come back to a high growth path.

In response to the dramatic collapse of the currency and the stock markets in the region due to the abrupt withdrawal of an enormous amount of private capital, the international community swiftly extended a large amount of financial assistance. However, despite such international support, the crisis engulfed many neighboring economies and evolved into a full fledged regional economic crisis that is by far deeper and by far longer than initially anticipated. This crisis is said to have originated not from the traditional type of currency crisis arising from the deterioration in the current account but from a new type of currency crisis, which some people call "a currency crisis of the 21st century ",

1) This article is based on the paper that the author presented to the Seventh International Karl Polanyi conference held at Centre August et Leon Walras, Universite Lumiere-Lyon II in Lyon, France on May 26-28, 1999. The author is thankful to Professor Hiroshi Shibuya of Tokyo University for his valuable comments and assistance throughout the drafting of the paper.
arising from a sudden reversal of international capital flows. Against this background, it now needs to be answered whether the counter measures adopted under the leadership of the IMF correctly responded to such characteristics of the crisis. The prescription by the IMF centering on the structural reform measures may not have sufficiently addressed the true nature of the crisis, that is, the volatility of international capital flows, which may characterize the globalized financial markets. In the face of the incessant globalization of the world financial markets, the international community has to concentrate their efforts to reform the international financial system so as to bring about more stability in the world financial markets, in general, and to incorporate both preventive measures against re-emergence of crisis and effective counter measures when a crisis re-emerged, in particular. Meantime, the developing economies have to press forward with the strengthening of their domestic financial system and in the case where the maturity of the system is not sufficient they might well be better off by taking a cautious approach to the full integration to the international financial markets via liberalization of their capital account.

1. Introduction

The wave of currency depreciation started by the sharp fall of Thai baht in July 1997 gradually swallowed neighboring countries during the 2nd half of the year, and evolved into a full-fledged region wide currency and financial crisis by the end of 1997, when Korea which had joined the OECD just one year before came to the brink of default. After the currency markets had hit the bottom of the time around the turn of the year, it began to surface that the affected economies were starting to experience a serious deterioration, which subsequently led the economies to a deep economic crisis.
Almost two years have passed since the eruption of the currency crisis and most of the affected economies either have bottomed out or are bottoming out this year. However, we need to wait for next year or even later for those economies to recover from the aftereffects of the crisis and to come back to a high growth path as we saw in this region in the immediate past.

This paper, by analyzing the developments in one year period after the start of the currency crisis, tries to understand the real nature of the Asian crisis, evaluate the objectives and contents of the prescriptions by the International Monetary Fund (IMF), which played a central role in the international efforts to support affected economies and presents challenges that we have to tackle for the future.

The structure of the paper is as follows. The next section (Section 2) briefly reviews what happened to Asia by presenting figures for the currency and stock price collapses and economic deterioration in Asian economies. Then, Section 3 explains that the forces behind the currency crisis were a dramatic withdrawal of private capital, largely consisting of bank lending, from the region. The section also presents two different interpretations of the causes of the capital outflows. Section 4 explains how the IMF initially looked at the crisis and outlines the prescriptions they prepared and Section 5 evaluates the way the nature of the crisis was captured by the IMF and the contents of its prescriptions. The concluding section (Section 6) presents an interpretation of the crisis by the author, which basically states that the true nature of the crisis is a reflection of the instability inherent in the current financial and capital markets, and from that viewpoint, presents actions that need to be taken by the international community including the IMF and
by the developing countries to mitigate risks associated with such instability.

2. Evolutions of the Asian crisis

—What happened to Asia?—

(1) Falls in the currency value and stock prices

Table 1 shows the rates of reduction in the currency values and stock prices during the one year period from end-June 1997 to end-June 1998 for the nine Asian economies (Asian NIEs (Korea, Singapore, Taiwan and Hong Kong), ASEAN 4 (Thailand, Indonesia, Malaysia and Philippines) and China).

As for the currency value, five countries (ASEAN 4 + Korea, which will be referred to as the “crisis 5” countries hereinafter) out of nine experienced a dramatic collapse of their currencies by more than 35%, with Indonesia recording a nearly 84% loss of its currency value in just one year. Two economies (Taiwan and Singapore) experienced a fall by 15–20%. The

<table>
<thead>
<tr>
<th>Currency Value</th>
<th>Stock Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>−41.40</td>
</tr>
<tr>
<td>Indonesia</td>
<td>−83.73</td>
</tr>
<tr>
<td>Malaysia</td>
<td>−38.86</td>
</tr>
<tr>
<td>Philippines</td>
<td>−37.16</td>
</tr>
<tr>
<td>Korea</td>
<td>−35.56</td>
</tr>
<tr>
<td>Singapore</td>
<td>−15.56</td>
</tr>
<tr>
<td>Taiwan</td>
<td>−19.07</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>−0.02</td>
</tr>
<tr>
<td>China</td>
<td>0.13</td>
</tr>
</tbody>
</table>

(Note) Currency values are in terms of US dollars.
(Source) Bloomberg
remaining two economies, namely Hong Kong and China, succeeded in defending their currencies. It needs to be noted that there are large differences in the rate of currency depreciation among the economies in the region.

By contrast, all economies except for Taiwan experienced a large correction of the stock prices in the magnitude of about 40-60%. It is noteworthy that Hong Kong and China, which escaped currency depreciation, also experienced a large stock price fall by more than 40%.

(2) **Sharp deterioration of the economies**

Table 2 shows the current situations of the affected economies. Thailand, where the crisis started, has recorded a negative growth for five consecutive quarters since the third quarter of 1997, showing particularly large contraction by 10-15% in the most recent periods. Seven out of eight economies

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1997</td>
<td>1998</td>
</tr>
<tr>
<td></td>
<td>Q1 Q2 Q3 Q4</td>
<td>Q1 Q2 Q3 (prj.) (prj.)</td>
</tr>
<tr>
<td>Thailand</td>
<td>5.5  -0.4  7.0  7.5  2.5  1.4  1.6  1.0</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>8.0   4.6   8.5  6.8  2.5  1.4  1.6  0.2</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>8.6   7.7   9.2  8.4  2.5  1.4  1.6  0.2</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>5.7  5.2  5.5  5.6  4.9  4.8  1.6  0.2</td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>7.1   5.5   5.7  6.6  6.1  3.9  3.9  0.2</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>6.9   7.8   8.5  10.6  3.9  5.6  1.8  0.2</td>
<td></td>
</tr>
<tr>
<td>Taiwan</td>
<td>5.7   6.8   6.6  6.1  7.0  7.2  5.9  4.9</td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>4.6   5.3   5.7  6.9  6.1  2.8  2.7  3.9</td>
<td></td>
</tr>
</tbody>
</table>

(Note) Quarterly figures for Thailand are manufacturing production.
(Source) IMF “World Economic Outlook and International Capital Markets—Interim Assessment—” (December 1998)
IMF “World Economic Outlook” (September 1998)
shown in the table, i.e., all economies excluding Taiwan, have fallen into a negative growth by the third quarter of 1998. Taiwan continues to record a positive growth close to 5% but is gradually slowing down. China, the figure for which is not shown in the table, recorded a high growth of 7.2% in 1998 following 8.8% growth in 1997. All these nine economies had been growing at a high rate of about 5–10% in 1996 and continued to achieve about 5–9% growth even in 1997 except Thailand, which fell into a small negative growth of $-0.4\%$. Compared with such high performances in the immediate past, we can see how deep and how serious the economic deterioration is after the currency crisis.

As for the recovery, the IMF forecasts that, while the Thai economy will come back to a positive growth of 1.0% in 1999 after a negative growth of $-8.0\%$ in 1998. Indonesia, Malaysia and Korea will hit the bottom in 1999 and the recovery for these economies will start next year.$^2$)

3. **What is the true nature of the Asian crisis**

(1) **The cause of the currency crisis is a large withdrawal of private capital**

The driving force behind the sharp depreciation of the Asian currencies after mid-1997 is a large-scale withdrawal of private capital from the region. Table 3 shows net private capital flows to developing economies (emerging

$^2$) IMF "World Economic Outlook and International Capital Markets-Interim Assessment-December 1999." By contrast, the Asian Development Bank estimates that not only Thailand but also Indonesia, Malaysia and Korea hit the bottom in 1998 and forecasts that they will recover to a zero or positive growth of 0–2% in 1999 (ADB "Asian Development Outlook 1999" (April 1999)).
The Asian Crisis and the Prescriptions by the International Monetary Fund

Table 3. Net Private Capital Flows to Emerging Markets (by region)
(in billions of US dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>19.1</td>
<td>35.8</td>
<td>21.7</td>
<td>57.6</td>
<td>66.2</td>
<td>95.8</td>
<td>110.4</td>
<td>13.9</td>
</tr>
<tr>
<td>Africa</td>
<td>-1.9</td>
<td>1.7</td>
<td>-2.0</td>
<td>4.0</td>
<td>10.6</td>
<td>13.8</td>
<td>4.5</td>
<td>8.9</td>
</tr>
<tr>
<td>Middle East and Europe</td>
<td>0.2</td>
<td>65.7</td>
<td>38.0</td>
<td>26.6</td>
<td>17.9</td>
<td>16.9</td>
<td>24.2</td>
<td>25.4</td>
</tr>
<tr>
<td>Western Hemisphere</td>
<td>10.1</td>
<td>26.1</td>
<td>56.0</td>
<td>64.3</td>
<td>47.4</td>
<td>35.7</td>
<td>80.5</td>
<td>91.1</td>
</tr>
<tr>
<td>Countries in Transition</td>
<td>3.5</td>
<td>-2.4</td>
<td>7.2</td>
<td>12.2</td>
<td>18.4</td>
<td>29.8</td>
<td>21.3</td>
<td>34.5</td>
</tr>
<tr>
<td>Total</td>
<td>31.0</td>
<td>126.9</td>
<td>120.9</td>
<td>164.7</td>
<td>160.5</td>
<td>192.0</td>
<td>240.8</td>
<td>173.7</td>
</tr>
</tbody>
</table>

(Source) IMF “International Capital Markets” (September 1998)

Table 4. Net Private Capital Flows to Asia
(in billions of US dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>46.8</td>
<td>49.5</td>
<td>57.0</td>
<td>57.8</td>
</tr>
<tr>
<td>Net foreign direct investment</td>
<td>9.5</td>
<td>10.5</td>
<td>13.4</td>
<td>-8.6</td>
</tr>
<tr>
<td>Net portfolio investment</td>
<td>9.9</td>
<td>35.8</td>
<td>39.9</td>
<td>-35.4</td>
</tr>
<tr>
<td>Other</td>
<td>66.2</td>
<td>95.8</td>
<td>110.4</td>
<td>13.9</td>
</tr>
<tr>
<td>Total net private capital inflows</td>
<td>66.2</td>
<td>95.8</td>
<td>110.4</td>
<td>13.9</td>
</tr>
<tr>
<td>Crisis 5 countries</td>
<td>7.4</td>
<td>9.5</td>
<td>12.0</td>
<td>9.6</td>
</tr>
<tr>
<td>Net foreign direct investment</td>
<td>10.6</td>
<td>14.4</td>
<td>20.3</td>
<td>11.8</td>
</tr>
<tr>
<td>Net portfolio investment</td>
<td>17.1</td>
<td>39.0</td>
<td>40.6</td>
<td>-32.3</td>
</tr>
<tr>
<td>Other</td>
<td>35.1</td>
<td>62.9</td>
<td>72.9</td>
<td>-11.0</td>
</tr>
<tr>
<td>Total net private capital inflows</td>
<td>35.1</td>
<td>62.9</td>
<td>72.9</td>
<td>-11.0</td>
</tr>
</tbody>
</table>

(Source) IMF “International Capital Markets” (September 1998)

markets) by region. From this table, we can see a dramatic fall in net private capital inflows to Asia. All areas other than Asia recorded an increase in the level of inflows even in 1997.

Table 4 shows, for each of “Asia” as a whole and “the Crisis 5 countries”, net private capital inflows by type of investment for the years of 1994 to 1997. We can see from the table that the fall in net private capital inflows to
Asia in 1997 is almost fully explained by the fall in the inflows to the crisis 5 countries. Furthermore, if we look at inflows to the crisis 5 countries by type of investment, we can see that "other" inflows which mainly consists of bank lending dramatically fell from net inflows of about 41 billion dollars in 1996 to a net outflows of about 32 billion dollars in 1997. A large and abrupt withdrawal of private capital mainly composed of bank lending from the crisis 5 countries is the major cause of the Asian currency crisis.

(2) Why did private capital fled from Asia?

—Two interpretations—

If the major cause of the Asian crisis is a large-scale outflow of certain type of private capital, the next question is why they fled from Asia. There have been extensive discussions on the issue but views expressed so far may be broadly categorized into two types.

The first type of argument, which may be called as "Fundamentalist interpretation", emphasizes, as the major cause of the capital outflows, those structural problems and policy mistakes that existed in the affected economies. In particular, they stress the importance of the fragility of financial sector and nontransparent relationships between Government and the private sector in the affected economies and they argue that such unhealthy economic structure have made private capital flow out.

The second argument, which may be called as "Panic interpretation", sees this crisis as a financial panic akin to a bank run. Under this interpretation, as sentiments for Asia among international investors drastically swung from excessive optimism to excessive pessimism, there occurred, what one may call, a run on a country, sacrificing the then basically healthy economies.

Leaving aside for the moment the question of which of these two inter-
pretations fits better, let us examine how the IMF looked at the crisis and what type of prescriptions were prepared by them.

4. Response by the IMF

(1) How did the IMF looked at the causes of the crisis?

The IMF found the cause of the crisis not in macroeconomic imbalances but in structural problems in those economies such as weaknesses in financial systems and, to a lesser extent, governance problems. For example, under their interpretation, “A combination of inadequate financial sector supervision, poor assessment and management of financial risk, and maintenance of relatively fixed exchange rate led banks and corporations to borrow large amounts of international capital, much of it short-term, denominated in foreign currency, and unhedged. As time went on, this inflow of foreign capital tended to be used to finance poorer-quality investments.” And such a problem “was made worse by governance issues, notably government involvement in the private sector and lack of transparency”.3) In short, the IMF considered that the economic structure and policies that brought the large amount of foreign capital into the economies were the central source of the crisis. In that sense, the IMF’s view is classified as a fundamentalist interpretation.

As for the cause of the contagion of the crisis to other economies, an executive staff member of the IMF listed the followings.4) First, the depreciation of the baht could be expected to erode the competitiveness of the

3) IMF "IMF’s Response to the Asian Crisis" (April 16, 1998, January 17, 1999)
4) Stanley Fischer “The Asian Crisis: A View from the IMF” (January 22, 1999)
Thailand's trade competitors, and this put some downward pressure on their currencies. Second, the markets began to take a closer look at the problems in Indonesia, Korea and other neighboring countries and there they saw some of the same problems as in Thailand, particularly in the financial sector. Third, as currencies continued to slide, the debt service costs of the domestic private sector increased and so they rushed to hedge their external liabilities, thereby intensifying exchange rate pressures.

(2) **Prescriptions by the IMF**

Among the affected economies, three countries, i.e., Thailand, Indonesia, and Korea (referred to as the “IMF 3” countries hereinafter), made a request for an IMF loan. These three countries formulated respective economic adjustment program in consultation with the IMF and in exchange for their commitment to implement policies incorporated in each program, they received financial supports from multilateral institutions including the IMF and several individual countries. (Table 5)

The major characteristics of these programs is that, identifying the structural problems of the economy particularly in the financial sector as the fundamental source of the crisis, they focussed on the strengthening of macroeconomic policies and the structural measures including financial sector restructuring so as to restore confidence in the markets and to stabilize the currency. Based on such line of thoughts, the initial programs incorporated the following policy measures.

(a) Fiscal tightening-In each of the three programs, fiscal tightening equivalent to 1–3% of GDP was incorporated. Its objectives were to
Table 5. Financial Supports for Asian Countries

<table>
<thead>
<tr>
<th></th>
<th>Thailand</th>
<th>Indonesia</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMF</td>
<td>4.0</td>
<td>10.0</td>
<td>21.0</td>
</tr>
<tr>
<td>World Bank</td>
<td>1.5</td>
<td>4.5</td>
<td>10.0</td>
</tr>
<tr>
<td>ADB</td>
<td>1.2</td>
<td>3.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Bilateral Supports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>4.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brunei</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia's Own</td>
<td></td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Substantial External Assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17.2</td>
<td>23.0</td>
<td>35.0</td>
</tr>
</tbody>
</table>

The Second Line of Defense

<table>
<thead>
<tr>
<th></th>
<th>Japan</th>
<th>U.S.</th>
<th>Singapore</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.0</td>
<td>3.0</td>
<td>5.0</td>
<td>over 3.2</td>
</tr>
<tr>
<td>Total</td>
<td>over 16.2</td>
<td>over 8.0</td>
<td>over 3.2</td>
<td>over 8.0</td>
</tr>
</tbody>
</table>

(Note 1) For Indonesia, “other countries” are Australia (1.0), Malaysia (1.0), Brunei (1.2), China and Hong Kong, where amounts have not been announced yet by China and Hong Kong.

(Note 2) For Korea, “other countries” are UK, Germany, France, Italy, Canada, Australia, Netherlands, Belgium, Switzerland, Sweden and New Zealand, where none of their amounts has been announced.

(Source) The Committee on Foreign Exchange and Other Transactions (Japan) “Lessons from the Asian Crisis — Risks Related to Short-Term Capital Movement and the “21st Century-Type” Currency Crisis—” (May 19, 1998)
improve external current account position and to prepare for the costs associated with financial sector restructuring.

(b) Financial tightening-In order to support the currency, the programs aimed at maintaining high interest rates. Restraint on the money supply was also included to mitigate inflationary impacts of the currency depreciation.

(c) Exchange rate policy-All three programs supported flexible exchange rate systems, and intervention was limited to smoothing fluctuations in the markets.\(^5\) The program for Indonesia, however, stated that intervention would be used to bolster confidence and provide a clear direction to the market.

(d) Financial sector restructuring—The financial sector restructuring included measures to dispose of unviable financial institutions and to strengthen regulatory and supervisory system. For all of these three countries, financial sector restructuring was expected to play a key or central role for the success of the program.

(e) Other structural policies—There were differences in the components of other structural measures. The initial Thai program contained a rather simple list of policies, but the Indonesian program incorporated extensive measures for domestic deregulation and market opening and the Korean program also contained far reaching measures including trade and capital account liberalization.

\(^5\) Thailand and Indonesia had already moved to a float system when they requested IMF loans, and Korea moved to a float system shortly after the approval of the IMF loan.
5. Examination of the IMF’s response

(1) Causes of the crisis

As we saw before, under the IMF’s interpretation, the fragile financial sector and relatively fixed exchange rate system, which promoted large inflows of foreign capital and contributed to financing investments in non-productive sectors, were the major source of the crisis. It is true that these elements helped bring in foreign capital to the country and create macroeconomic problems in the form of excessive private investments in some sectors and widening current account deficits particularly in Thailand. However, although countries like Indonesia and Malaysia experienced equal or even greater depreciation of the currency than in Thailand, these economies did not have such substantive macroeconomic problems as seen in Thailand.

We also have to bear in mind that it takes many years for the structural problems to be formed in an economy and that more or less the same problem existed in these countries even when capital was flowing in.\(^6\)

Therefore, while the structural problems might have complicated the situation, we have to say that the structural problems themselves cannot explain the crisis. Furthermore, China and Vietnam, both of which have seriously week financial sectors and one of the most fixed exchange rate system, es-

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\(^6\) The OECD economic outlook (June 1998) presents the same view. The above argument in the text, however, does not intend to say that there was no problem in these economies. It should not be understated that the Thai economy had macroeconomic imbalances and that, in Korea, financial difficulties of some of the large company groups were starting to surface. However, what this paper argues is that the seriousness of the crisis far exceeded what one might expect from the degree of the pre-crisis economic problems in these countries.
Table 6. Short-Term Debt and Currency Depreciation

<table>
<thead>
<tr>
<th></th>
<th>Thailand</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Korea</th>
<th>Singapore</th>
<th>Taiwan</th>
<th>Hong Kong</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term debt (1996)</td>
<td>37,613</td>
<td>32,230</td>
<td>11,068</td>
<td>7,969</td>
<td>54,292</td>
<td>2,001</td>
<td>18,759</td>
<td>14,262</td>
<td>25,407</td>
</tr>
<tr>
<td>(percent of GDP)</td>
<td>20.8</td>
<td>14.9</td>
<td>11.7</td>
<td>9.1</td>
<td>11.2</td>
<td>2.2</td>
<td>6.9</td>
<td>10.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Short-term debt/Foreign reserve (1996)</td>
<td>97.4</td>
<td>165.7</td>
<td>39.7</td>
<td>68.0</td>
<td>159.5</td>
<td>2.6</td>
<td>21.3</td>
<td>22.4</td>
<td>22.7</td>
</tr>
<tr>
<td>Currency depreciation (end June 97-end June 98)</td>
<td>-41.40</td>
<td>-83.73</td>
<td>-38.86</td>
<td>-37.16</td>
<td>-35.56</td>
<td>-15.56</td>
<td>-19.07</td>
<td>-0.02</td>
<td>0.13</td>
</tr>
</tbody>
</table>

(Note) As for the ratio of short-term debt to foreign reserves, somewhat larger figures are given for Mid-1997 by BIS (68th Annual Report) for the crisis 5 countries as follows; Thailand (153%), Indonesia (182%), Malaysia (62%), Philippines (88%), Korea (214%).


caped direct impacts of the crisis. This clearly shows that financial sector weakness and the rigidity of the exchange rate system, even when existed in combination, would not necessarily cause a crisis or make an economy vulnerable to contagion.

The real nature of the crisis should be seen as a reflection of instability of private capital movements in the globalized financial markets. What happened was a cross boarder financial panic similar to a bank run caused by a sudden shift in the perception or sentiments in the markets. Whether a panic, when occurred, brings a country to a crisis or not depends basically on the amount of external short-term debt that each economy has accumulated by then. Table 6 shows the amount of short-term debt, its ratio to foreign reserves and the rate of currency depreciation during the one year period after the start of the crisis. The crisis 5 countries, and particularly the IMF 3 countries show clearly high ratios of short-term debt to foreign reserves.
(2) Evaluation of the IMF prescriptions

The next question is whether the IMF prescriptions were appropriate under the situation. Before analyzing the issue, we should take note of the followings. First, the IMF prescriptions were reviewed and substantially revised as the crisis evolved. Second, there were (and still are) limitations to what the IMF could do under the current international financial system. Bearing these in mind, let us look at the IMF’s prescriptions.

Table 7. Macroeconomic Targets and Values of Policy Variables under the IMF Programs and their Actual Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Thailand</th>
<th>Indonesia</th>
<th>Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP growth (%)</td>
<td>3.5</td>
<td>3.0</td>
<td>2.5</td>
</tr>
<tr>
<td>CPI inflation (end-period, %)</td>
<td>5.0</td>
<td>no more than 10%</td>
<td>at or below 5%</td>
</tr>
<tr>
<td>Current account balance (percent of GDP)</td>
<td>-3.0</td>
<td>around -2%</td>
<td>deficit below -1%</td>
</tr>
<tr>
<td>Fiscal balance (percent of GDP)</td>
<td>1.0</td>
<td>1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Money growth (%)</td>
<td>11.0</td>
<td>11.0</td>
<td>(a rate consistent with inflation of 5% or less)</td>
</tr>
<tr>
<td>1998 Actual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP growth (%)</td>
<td>-8</td>
<td>-16</td>
<td>-7</td>
</tr>
<tr>
<td>CPI inflation (end-period, %)</td>
<td>8.0</td>
<td>65</td>
<td>5.5</td>
</tr>
<tr>
<td>Current account balance (percent of GDP)</td>
<td>11.5</td>
<td>4.1</td>
<td>13.3</td>
</tr>
<tr>
<td>Fiscal balance (percent of GDP)</td>
<td>-2.4</td>
<td>-4.5</td>
<td>-5.0</td>
</tr>
<tr>
<td>Money growth (%)</td>
<td>9.0</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

(Note) Actual for CPI for Indonesia is period average.
(Source) Various IMF documents
(a) Basic objectives

First, the basic objectives of the program were the recovery of confidence in the market and the stabilization of the currency through the strengthening of macroeconomic policies and implementation of structural policies. The first thing to note is that the program was centered around "confidence", which is the perception or sentiments about the country in question by the market participants. The fact that the perception or sentiments was made to be the main target that the policies tried to influence shows inherent difficulties and instability that the programs assumed from the beginning.

(b) Fiscal tightening

The objectives behind the fiscal tightening were, as we saw, improvements in the current account balance and preparation for the costs of financial restructuring. If the crisis had been a classical type of currency crisis caused by deterioration in the current account and resultant depletion of foreign reserves, then financial tightening is most relevant. However, if we take the view presented in the first part of this section that the crisis was mainly caused not by deterioration in economic fundamentals such as widening current account deficits but by a large-scale outflow of private capital arising from deterioration of perception or sentiments in the markets, it is doubtful whether measures to reduce domestic demand was of a significant help in preventing the crisis from evolving further. As these countries had been showing basically healthy fiscal management, it might have been more appropriate to adopt accommodating fiscal stance to mitigate deflationary pressure to the economy expected from the large outflow of the capital. In fact, as the serious deterioration of the economies became clear in the process of the crisis, the IMF modified the fiscal stance and in the end
accepted rather substantial fiscal deficits.

(c) Financial tightening

Higher interest rates are in general expected to positively contribute to the support of the exchange rate. There are three reasons. First, higher interest rates could, by raising returns to the domestic financial assets, discourage shift by the domestic investor of their assets into foreign denominated assets and also encourage domestic investments by foreign investors. Second, higher interest rates could discourage speculative purchase of foreign currencies financed by borrowings in domestic currencies, by raising interest burden on such borrowings. Third, higher interest rates could reduce domestic demand and therefore contribute to the improvement in the current account balance.

The first mechanism would work so long as investors are interested only in the level of returns to the assets. However, once investors started to worry about not only returns but also the possibility of principal recovery, in other words, possibility of insolvency or liquidity shortage, it becomes unclear whether this mechanism still works. Higher interest rates would increase debt service cost of the domestic company and also create a downward pressure to the economy, giving negative impacts on the financial position of the domestic companies and also on domestic financial institutions. Thus, there is a possibility that the high interest rates in the affected economies had contributed to the worsening of the expectation by the investors on the possibility of principal recovery.

The second mechanism would basically work although there is an issue of the relative importance that speculative activities had in the market. The third mechanism seems to have had a limited relevance in the current case.
where the deterioration in the current account was generally not a central problem.

On the whole, the effectiveness of higher interest rates to stabilize exchange rates may not be so clear as one might expect. Therefore, if high interest rates do not work in stabilizing the exchange rate what is left might be just a downward pressure on the economy produced by the high interest rates, which would negatively affect sentiments in the markets.

(d) Exchange rate policy

The program adopted a policy of not trying to fix the exchange rate to any specific level. It was certainly not possible to maintain a fixed exchange rate system after the eruption of the crisis. But the fact that the exchange rate system was switched from a fixed to a floating system by one stroke might have made the market lose the direction and let the currency have a free fall. It is worth studying in order to derive a lesson for the future whether it was possible for Thailand to have a once-for-all substantial devaluation instead of a shift to a float system as of July 1997 although a large amount of supply of foreign currency would have been necessary in that case as their foreign reserves had become rather limited by that time.

(e) Structural policy

The main characteristics of the program consisted in extensive structural policies. The IMF thought it was not possible to go without these measures because they were, they thought, at the heart of the problem. However, as stated before, it takes a long time for structural problems to be formed and they cannot be created overnight. Private capital flowed in the countries with the structural problems and they flowed out of the same country with
more or less the same problems. The issue is not the structural problems themselves but the change in the way they are looked at, i.e., the perception by the market. It is a delicate question whether efforts or a declaration to make efforts to tackle the structural problems have positive or negative effects on the perception that had swung to the negative side. The policy for financial restructuring including closure of unviable institutions and strengthening of the capital base that might well lead to restraint on provision of lending might have placed a downward pressure on the economy and thereby negatively influenced expectations of foreign creditors on the return and possibility of principal recovery of their loans.

We have seen that “other” investment explains major part of the private capital outflows and bank lending mainly constitutes “other” investments. Substantial part of such bank lending was in the form of interbank loans. Interbank loans are typically of shorter maturity and therefore the fact that they were withdrawn indicates that the international creditor banks were primarily worried about the short term foreign currency liquidity position of the local debtor banks. The efforts to tackle structural problems will improve a long term prospects of the economy but its short term impacts on debtors’ liquidity position is not clear.

Structural problems might have contributed to creating the sources of the crisis. But it is entirely a different thing to say that structural measures to rectify these problems can prevent aggravation of the crisis. Prevention of re-emergence of a crisis is one thing and prevention of aggravation of a crisis that has already started is quite another. Structural measures in the programs may contribute to reducing the chance of future crisis but it is not clear if they have contributed to the mitigation of the seriousness of the current crisis.
(3) Were there alternatives?

As described above, there are various issues with the program. As the IMF program could not prevent the Asian crisis from deepening and spreading and the affected economies were thrown into serious economic difficulties, the programs were severely criticized from various grounds. However, the issue is whether there were realistic alternatives. My conclusion is that, under the limitations the international community was faced with, it is most likely that there was no almighty alternative. Those limitations included the followings. First, the affected economies had already introduced a large amount of short-term capital into the economies and therefore it would have required an enormous amount of fund, if it had been to fight against the capital withdrawal by intervention. Second, there was (and still basically is) a limit to the amount of fund available to the individual countries and international financial institutions including the IMF. Third, although persuading the international creditors not to withdraw their capital was the most effective way to contain the crisis (such efforts were actually undertaken), there was no well-established channel or rule relating to such dialogue. Fourth, as there had not been sufficient prior examinations of the emergency measures to take under such circumstances including appropriate exchange rate system and capital controls, there was little chance to reach an international consensus for the necessary emergency measures.

Even under such limitations, however, the following might be said. First, in the crisis like this, fiscal tightening tends to have limited relevance to the containment of the crisis and therefore it may be appropriate to adopt neutral or rather accommodating fiscal stance from the beginning to cope with likely deterioration of the economy due to the crisis. Second, as the impacts on the investors’ perception of the structural measures are not clear, it is advisable
to incorporate only those structural measures that have clear and direct bearings on the crisis and are surely to improve investors' confidence. Third, although there is a limitation, dialogue with, and suasion of, foreign creditors should be assigned an important place in the IMF program.

6. Challenges ahead

(1) General conclusion

The Asian crisis can be understood as a reflection of negative aspects of globalization of financial markets, i.e., the instability and unpredictability of private capital movements. It is noteworthy that the hardest hit countries were those that had most liberalized capital accounts like Thailand and Indonesia. By contrast, China and Vietnam, whose capital controls are among the tightest, escaped direct impacts of the currency crisis. These incidents have shown the relevance of the openness of the capital accounts to the crisis and the severeness of the negative impacts that the unprepared integration with the world financial market could bring about to a country.7)

In examining the measures to take to mitigate the risk and negative impacts of the crisis, we should make it as a premise that sudden reversal of private capital flows will continue to be difficult to prevent in the future. Today, it is said that the amount of currency transactions is as much as some 1.5 trillion US dollars a day.8) By contrast, the amount of world trade is about 11 trillion US dollars a year. These figures imply the possible magni-

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7) China, which succeeded in maintaining its exchange rate, could not escape from a large correction of stock prices. This is because the Chinese stock market (the market for B shares for foreigners) had been integrated to the international capital markets and could not be isolated from the changes in the sentiments in the international markets.

8) Speech by Finance Minister Miyazawa at the association of foreign press (December 15, 1998)
tude of impacts that the capital movements could bring about to individual countries including in particular small-sized developing countries.

(2) **Tasks of international community**

The international community have to examine the way to reduce instability in the markets. The IMF has already started an extensive study to strengthen the architecture of international financial system. Issues under examination include the strengthening of disclosure of information on IMF’s member countries and the private sector including financial institutions, the strengthening of the IMF’s surveillance, the strengthening of the financial sector, integration to the international financial markets, and involvement of the private sector in the prevention of, and coping with, the crisis. The IMF is now emphasizing the importance of “orderly integration” with the international financial markets. As we can see from a statement of Mr. Stanley Fischer, First Deputy Managing Director, IMF that “liberalization without a necessary set of preconditions in place may be extremely risky”, the IMF seems to be taking a realistic approach to this issue.\(^9\)

(3) **Issues relating to the IMF program**

The IMF needs to improve its current theoretical framework\(^{10}\) that it uses

\(^9\) IMF “IMF SURVEY” (March 23, 1999)

\(^{10}\) The annex presents the basic framework of the IMF program. The equation (3) in the annex states that if the increase in the net domestic assets of the consolidated banking system \((\triangle D)\) is greater than the increase in the demand for money \((\triangle MD)\), then we will have a decrease in the net foreign assets of the consolidated banking system (i.e., \(\triangle R\) is negative), which corresponds to a balance of payments deficit. Therefore, the IMF program usually places a limit on \(\triangle D\) (or on other variables that affect money supply), so that we will have an improved balance of payments position. To supplement such monetary instruments, the IMF program also typically adopts fiscal tightening mea-
when formulating programs in such a way that it sufficiently incorporates effects of globalization of financial markets. We are living in a world where a crisis can arise not only from overspending but also from a sudden reversal of capital flows caused by a shift in perception or sentiments of the market participants. The IMF needs a framework that reflects such reality.

(4) Issues for developing countries

For the affected economies, the first priority should be given to the economic recovery. Japan is trying to extend as much assistance as possible to help these economies, despite its difficult fiscal position, which is by far the worst among the G7 countries. These economies should also press forward with structural reforms, which, if implemented in an appropriate manner, will surely benefit them in the longer run.

Regarding the issue of future crisis prevention, developing countries have to examine both benefits and costs of liberalization of capital accounts and have to be careful not to introduce instability through unprepared liberalization. What developing countries have to do is to reconsider its development strategy to see if it is too dependent on foreign capital, to examine measures to control inflows of short-term capital, to strengthen the management of total foreign liabilities, and to strengthen domestic financial system. In particular, developing countries have to place in force those measures to control costs of financial globalization if they are to enjoy its benefits. If they could not have appropriate measures in place to manage such costs, they might well be better off by proceeding cautiously with the integration with the globalized financial markets.

sures so as to reduce absorption (i.e., (C+I+G) in equation (5)) so that the current account position (Y-(C+I+G)) will be improved.
7. Conclusion

This article, after briefly reviewing what happened to Asia, presented the author's interpretation of the Asian crisis that the sudden and large-scale withdrawal of private capital which brought about the currency crisis was caused by an abrupt shift in the sentiments about Asia by the market participants. Based on that Interpretation, it critically examined prescription by the IMF and then presented challenges for both the international community including the IMF and the developing countries. While the view presented in this article may not have been widely supported in the early stage of the crisis, the G7 Finance Ministers meeting held at Cologne last June, that is, about two years after the eruption of the crisis in Thailand, agreed on, and submitted to the G7 Economic Summit meeting, a report entitled "Strengthening the International Financial Architecture", which covered extensive issues including many of those examined in this article and put forward measures that appropriately took into account the real nature of the crisis. The main points presented by the report included the importance to avoid excessive inflow of foreign denominated short-term capital, acceptance of capital outflow controls in certain exceptional circumstances and the necessity to secure involvement of private creditors in the prevention and resolution of crises. The international community is now in the stage of implementing those measures included in the report. We would like to see that the instability inherent in the current international financial market, which was, in the author's view, the major factor behind the Asian crisis, will be reduced wherever possible and whether or not such risks are mitigated the prevention and effective resolution of future crises will be pursued through the internationally concerted policy actions that correctly reflect lessons we
obtained through the turbulence and confusions in the international financial markets during the past two years.

Annex

The basic framework of the IMF financial programming

1. Basic equation

The balance sheet relationship for the consolidated banking system is written as

\[ MS = DC + R \]  

Where

- \( MS \) = stock of money
- \( DC \) = net domestic assets of the consolidated banking system (or domestic credit, if other domestic assets ignored)
- \( R \) = net foreign assets of the consolidated banking system

The demand for money balances is assumed to take the following form:

\[ MD = f(y, p, \ldots) \]

The condition for equilibrium in the money market is:

\[ MS = MD \]  

If we combine equations (1) and (2) and take one period change of all variables:

\[ \Delta MD = \Delta DC + \Delta R \]

or

\[ \Delta R = \Delta MD - \Delta DC \]  

Combining this with the balance of payments identity

\[ \Delta R = \Delta MD - \Delta DC = X - M + \Delta FI \]
Where $\Delta FI = \text{capital account balance}$
$X = \text{export}$
$M = \text{import}$

2. Absorption

We have the national income identity:

$Y = C + I + G + X - M$

Where $Y = \text{income (domestic production)}$
$C = \text{private consumption}$
$I = \text{domestic investment}$
$G = \text{government expenditure}$

or

$Y - (C + I + G) = X - M$ \hfill (5)

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