

October 29-31, 2001

The Robbins Lectures

The International Financial System: Crises and Reform

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It is an honor indeed to be invited to deliver these lectures dedicated to the memory of Lord Robbins. And it is an especial honor and a pleasure for me to deliver these lectures at the LSE, where I spent four very happy years from 1962-1966, first as an undergraduate, and then taking the M.Sc. (Econ). At that time Lord Robbins taught a course in the History of Economic Thought. The economics students all read *An Essay on the Nature and Significance of Economic Science*, and we followed with keen interest the recommendations of the Robbins Committee on Higher Education, on which Richard Layard was a Senior Research Officer. And those of us taking Monetary Economics were aware that in the fifties, far ahead of the consensus, Lord Robbins had made the case for the effectiveness of monetary policy, a point that was then much debated but is not now in doubt.

The last paragraph of Robbins' famous *Essay on the Nature and Significance of Economic Science* bears testimony to his belief in the value of our field:²

... in the last analysis Economics does depend ...on ... the affirmation that rationality and ability to choose with knowledge is desirable. ... [T]hat branch of knowledge which, above all others, is the symbol and safeguard of rationality in social arrangements, must, in the anxious days which are to come ... possess a peculiar and heightened significance.

Lionel Robbins was deeply involved in the discussions and the meetings that led to the creation of the IMF and the World Bank, and attended the Bretton Woods conference. So I feel sure that for that reason alone the topic for this year's Robbins Lectures would have interested him.

While a student, I had the pleasure of attending a seminar at which Robbins read extracts from his wartime diaries. I remember him on that occasion reading in his sonorous voice a striking paragraph that has subsequently appeared in print. It is the entry for June 24,

¹ Lectures prepared for delivery at the London School of Economics, October 29-31, 2001. I am grateful to my IMF colleagues for discussion of these topics over the last seven years, and to Ratna Sahay, Robert Chote, and Prachi Mishra of the IMF for their assistance in the preparation of these lectures. I have drawn extensively on material presented in the Kuznets Lectures at Yale University in October 2000. Views expressed are those of the author, and not necessarily of the International Monetary Fund.

² The reference to "anxious days ... to come" appears to refer to the Depression, not World War II, since the quoted words are in the first (1932) edition.

1944, about a meeting in Atlantic City with the American delegation, a week before the start of the Bretton Woods conference:³

... Keynes was in his most lucid and persuasive mood; and the effect was irresistible. At such moments, I often find myself thinking that Keynes must be one of the most remarkable men that have ever lived – the quick logic, the birdlike swoop of intuition, the vivid fancy, the wide vision, above all the incomparable sense of the fitness of words, all combine to make something several degrees beyond the limit of ordinary human achievement. Certainly, in our own age, only the Prime Minister [Churchill] is of comparable stature. He, of course, surpasses him. But the greatness of the Prime Minister is something much easier to understand than the genius of Keynes. For in the last analysis, the special qualities of the Prime Minister are the traditional qualities of our race raised to the scale of grandeur. Whereas the special qualities of Keynes are something outside all that. He uses the classical style of our life and language, it is true, but it is shot through with something that is not traditional, a unique unearthly quality of which one can only say that it is pure genius. The Americans sat entranced as the God-like visitor sang and the golden light played around. When it was all over there was very little discussion. ...

In quoting Robbins on Keynes, I am highlighting not only his own superb style, but also his generosity to a great economist, Keynes, with whom he had earlier substantially disagreed – and it is striking also that in his public activities, including his association with the National Gallery and the Royal Opera House, and his involvement in public policy issues, he had so much in common with Keynes.

³ In Susan Howson and Donald Moggridge (editors), *The Wartime Diaries of Lionel Robbins and James Meade, 1943-45*. Macmillan, 1990, pp 158-9.

Chapter 1: The First Financial Crises of the Twenty-First Century

Between December 1994 and March 1999, Mexico, Thailand, Indonesia, Korea, Malaysia, Russia, and Brazil experienced major financial crises, which were associated with massive recessions and extreme movements of exchange rates. Their effects spread to other emerging market countries, and in the fall of 1998 seemed to threaten the stability of United States financial markets.⁴

The course of the crisis can be followed in Figure 1, which shows the EMBI (Emerging Market Bond Index) spreads for the period 1994 to mid-2001. Here we see the Mexican crisis – described by Michel Camdessus, then Managing Director of the IMF, as the first financial crisis of the twenty-first century – which produced the highest spreads of the decade, followed by a slow decline of spreads until early 1996. The Thai devaluation produced only a small ripple; the starting date for the Asian crisis, as reflected in the spreads, was rather the devaluation by Taiwan on October 17, and the attack on Hong Kong a few days later.

By mid-1998 there were clear signs of the beginning of a recovery in the Asian crisis countries, and spreads were beginning to decline again. Then came the Russian crisis of August 1998, which raised the average EMBI spread to 1600 basis points, higher than at any time since the Mexican crisis. Ominously, emerging market financing virtually dried up in that period, particularly following the LTCM crisis in September (Figure 2). Very rapidly, Russian contagion spread not only to Russia's neighbors but also to Latin America.

With the near-failure of LTCM, the emerging market financial crisis began to impact the financial markets of the industrialized countries. Speaking at the Council of Foreign Relations in New York on September 14, 1998, President Clinton said: “this is the biggest financial challenge facing the world in a half-century”. Despite an interest rate cut by the Fed on September 29, the gloom lay heavy during the IMF-World Bank meetings in early October 1998, as negotiations continued to put in place an IMF-supported program with Brazil. At the same time, the IMF was running out of money, and it was not clear if the Congress would approve the quota increase that had been agreed in Hong Kong a year earlier.

⁴ The crises generated a large literature. Nouriel Roubini of New York University maintains a bibliography of Asian- and financial-crisis related material on his website (www.stern.nyu.edu/~nroubini/asia/AsiaHomepage.html). I will draw heavily in these lectures on two excellent papers by my IMF colleagues: Jack Boorman, Timothy Lane, Marianne Schulze-Ghattas, Ales Bulir, Atish Ghosh, Javier Hamann, Alex Mourmouras, and Steven Phillips, “Managing financial crises: the experience in East Asia”, *Carnegie-Rochester Conference Series on Public Policy*, 53 (2000), 1-67 (henceforth Boorman *et al* (2000)); and Timothy Lane, Atish Ghosh, Marianne Schulze-Ghattas, Ales Bulir, Javier Hamann, and Alex Mourmouras, “IMF-Supported Programs in Capital Account Crises—Design and Experience”, IMF, 2001 (henceforth, Lane *et al* (2001)). Alexandre Lamfalussy discusses four financial crises – the Latin American debt crisis, 1982-83; Mexico, 1994-95; East Asia, 1997-98; and Russia, 1998 – in *Financial Crises in Emerging Markets*, New Haven: Yale University Press, 2000.

Figure 1: Emerging Market Spreads , 1994-2001

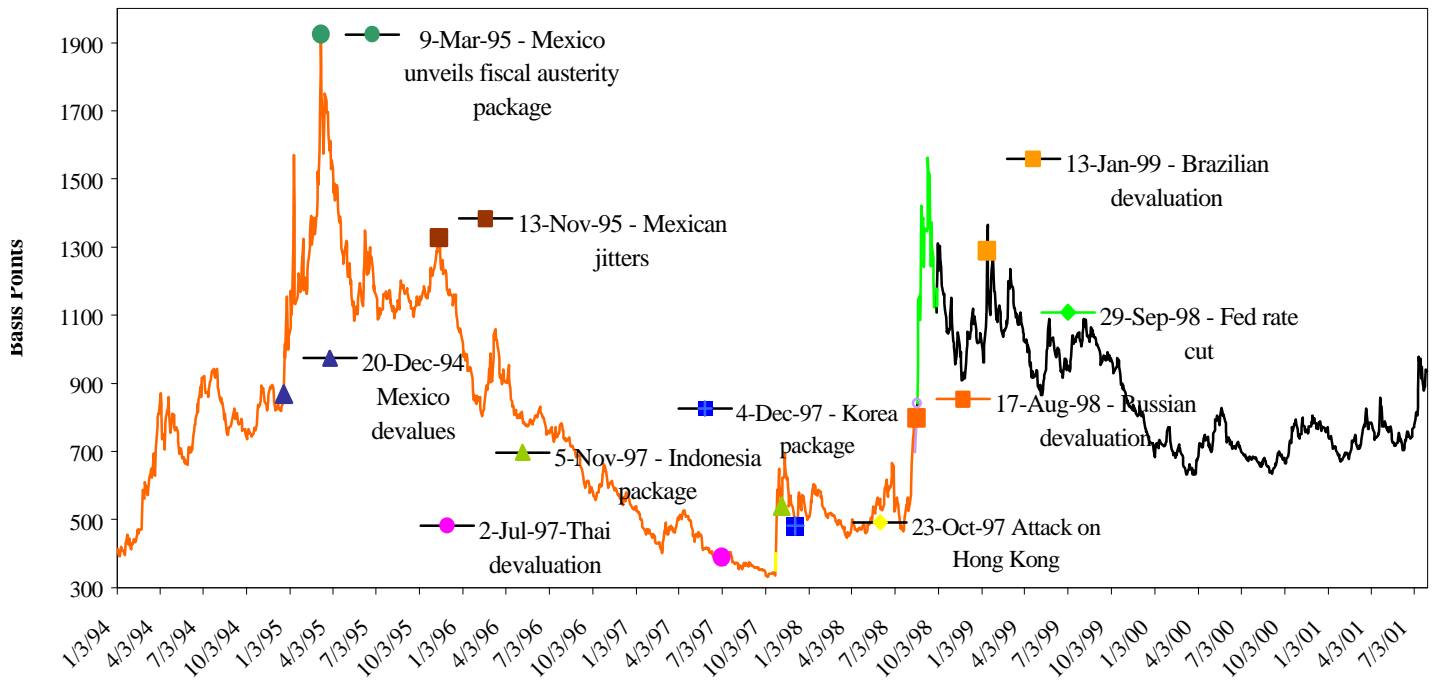
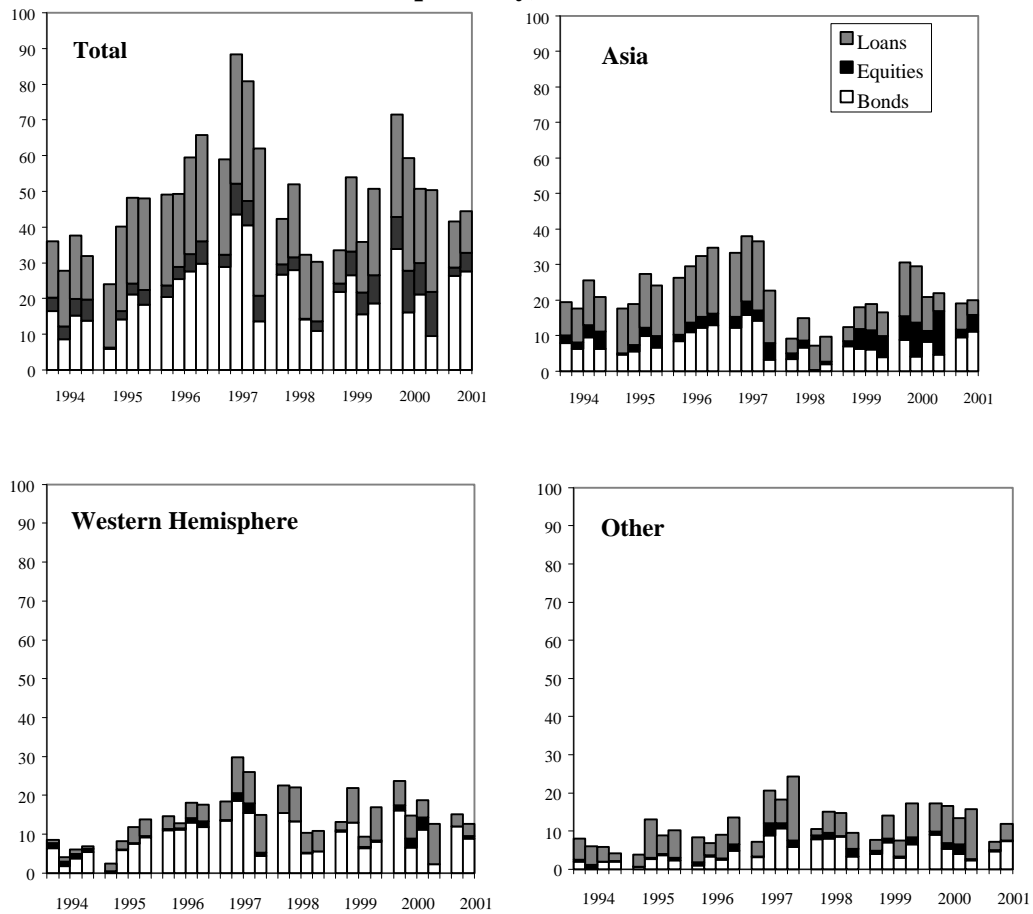


Figure 2. Private Market Financing for Emerging Markets (1994-2001, quarterly)



Source: Capital Data Ltd

Table 1a : Official Financing Packages

Country	Date of approval of the original package	Original Package (in billions of US dollars)	IMF (in billions of US dollars)	WB and regional development bank (in billions of US dollars)	Bilateral Sources (in billions of US dollars)	Financing Package in percentage of GDP
Mexico	Feb 1, 1995	48.8	17.8	0.0	31.0	12.3
Thailand	August 20, 1997	17.2	4.0	2.7	10.5	9.4
Indonesia	November 5, 1997	36.1	10.1	8.0	18.0	15.9
Korea	December 4, 1997	58.4	21.1	14.2	23.1	11.2
Russia	July 20, 1998	16.5	11.2	3.8	1.5	8.5
Brazil	December 2, 1998	41.7	18.2	9.0	14.5	5.2

Table 1b : Fund Financing Packages

Country	Date of arrangement	Fund package in percent of quota	Disbursements within first three months (in percent of original package)	Disbursements within first twelve months (in percent of original package)	Maximum disbursements (in percent of original package)	Repayments (on schedule/early)
Mexico	Feb-95	688	43.6	72.6	72.6	Early
Thailand	August-97	505	41.4	72.4	86.2	On schedule
Indonesia	Nov-97	490	26.4	44.0	44.0	On schedule
Korea	Dec-97	1938	72.6	90.1	93.0	Early
Russia	July-98	142	42.9	42.9	42.9	Early
Brazil	Dec-98	600	26.2	60.4	72.7	Early

Source : IMF

In October, the Congress finally agreed to the quota increase. The Brazilian program, which made available a total of \$41.7 billion to Brazil,⁵ was approved by the Board of the IMF on December 2, 1998. By that date the Fed had cut rates twice more, and on December 3 the European central banks followed suit.

Nonetheless, in the face of mounting pressures on the reserves, Brazil on January 13, 1999 was forced to institute a crawling band exchange rate regime, and – as had others who had sought the half-way house of an exchange rate band after sustained attacks on the currency – two days later was forced to float. By March 1999 the revised Brazilian program, this time with a floating exchange rate, was agreed to by the Board of the IMF.

Up to that point, it had seemed that almost everything that could go wrong had gone wrong, except for one overwhelmingly important factor – the United States economy continued to perform as the engine of world stability and growth.⁶ After March 1999, things began to go right as the expected Brazilian recession failed to materialize, and growth resumed. At that point the pall that had been hanging over the emerging markets and the concerns that had beset me since October 1997 began to lift. After that, spreads trended downwards until close to the end of 2000, although they remained above their levels during the Asian crisis.⁷

The emerging market crisis took its toll on world growth, which in 1998 at 2.8 percent⁸ was lower than in any year between 1994 and 2000. But growth increased in 1999 and 2000, with the year 2000 seeing the highest global growth in over a decade.

During the period from the Mexican devaluation to the revised Brazilian program – from the end of 1994 to March 1999 – the IMF helped assemble loan packages amounting to almost \$218.7 billion (Table 1). Despite the scale of the 1990s crisis programs, most of the countries that experienced capital account crises also suffered massive recessions.

In this lecture, I shall focus on six of the crises: Mexico, Thailand, Indonesia, Korea, Russia, and Brazil. They were twenty first century crises because they were in large part capital account crises, in which capital flows reversed with a virulence that intensified underlying macroeconomic or microeconomic problems in the affected economies. Although these are the best-known of the 1990s crises, they were not the only ones during the period, for Turkey in 1994, Argentina in 1995, and Malaysia and the Philippines in 1997-98, experienced similar difficulties, and I shall from time to time refer to events in some of those countries.⁹

⁵ \$18.2 billion from the IMF, including the use of the GAB and NAB; \$14.5 billion in direct support from 20 countries, through the BIS; and \$4.5 billion each from the World Bank and Inter-American Development Bank.

⁶ India and China's ability to sustain high growth and China's ability to maintain its exchange rate were important stabilizing factors in Asia during this period.

⁷ To avoid having to comment on current events, I will not in these lectures discuss the IMF's programs with Turkey and Argentina in 2000-2001.

⁸ This measure uses the IMF system of weighting growth rates by the share of the country in PPP-adjusted global income. Since the weights for low income high-growth countries, including China and India, are higher than they are in dollar-weighted income, the IMF measures of global growth typically exceeds other measures.

⁹ See Lane *et al* (2001), which examines eight capital account crises – of the six studied in this lecture, it omits Russia and includes the Turkish crisis of 1994, as well as that in Argentina in 1995, and the Philippines in 1997.

The controversies that erupted during and following these crises included, serious questioning of the economics and political economy of stabilization and reform programs for countries that turned to the IMF for assistance; an intense debate over the role of international capital flows and capital market liberalization; and an associated and protracted discussion of the reform of the international financial system, centered largely on the role of the IMF.

I shall take up these topics in turn, starting with a summary of the origins and outcomes of the crises, and the IMF-supported programs that were put in place to deal with them. I will then discuss the reform of the international financial system, with the focus on the IMF.

I. The Crises: Origins and Macroeconomic Outcomes

Mexico's devaluation¹⁰ on December 20, 1994 (followed two days later by a forced decision to float) came as a surprise to many, in both the markets and the official sector, despite the famous warning by Rudi Dornbusch and Alejandro Werner at the Spring 1994 Brookings Panel meeting that a "sad ending lies ahead unless the currency is devalued." (p.287).¹¹

[In a speech at the fiftieth anniversary meetings of the IMF and World Bank in Madrid in September 1994, the widely and rightly respected dinner speaker, Pedro Aspe, then Mexico's Finance Minister, laid out in detail what Mexico had achieved during the previous six years.¹² It was in large part because Mexico's structural policies had been so impressive, because budget deficits and debt – both internal and external – had been small relative to GDP, and because Mexico's relations with its creditors were good, that the devaluation came as such a shock to so many.¹³]

In retrospect, the Mexican crisis was generally attributed to the unsustainability of the current account deficit, which had averaged more than seven percent of GDP for the three years 1992-94. In addition, the Mexican budget presented just before the devaluation assumed that the current account deficit in 1995 would be 8 percent of GDP. Mexican government officials tended to attribute the crisis to a series of adverse shocks, including the assassination of presidential candidate Colosio in March 1994, when the reserves declined by about \$10 billion (out of a total of \$30 billion), and then the Chiapas crisis, which produced another reserve decline in November of about \$10 billion.

Let me note three other important policy lessons drawn from the Mexican crisis at the time. First, there were actually two Mexican adjustment programs. The first, produced very

¹⁰ Mexico broadened its exchange rate band on December 20, and the exchange rate promptly moved to its upper limit, as capital outflows intensified.

¹¹ Rudiger Dornbusch and Alejandro Werner, "Mexico: Stabilization, Reform, and No Growth", *Brookings Papers on Economic Activity*, 1994, 1, 253-298.

¹² For a similar presentation by Aspe, see pp. 126-138 in James Boughton and Sarwar Lateef (editors), *Fifty Years After Bretton Woods: the Future of the IMF and the World Bank Group*. Washington, DC: International Monetary Fund and World Bank Group.

¹³ For an early account of the Mexican crisis, see Annex I of *World Economic Outlook*, IMF, May 1995, pp. 90-97.

soon after the devaluation, assumed that the external deficit would decline from 8 percent of GDP to 4 percent, and that growth would be 1.5 percent, these results to be obtained by the devaluation supported by a tightening of fiscal policy. When it became clear that the markets were in no mood to support any current account deficit, the program was reformulated in March 1995. Fiscal policy was tightened further by around 1.7% of GDP, and growth for 1995 was assumed to be minus 2 percent. In the event, growth in 1995 was minus 6 percent. But the confidence of the markets began to be regained with the strengthening of the program in March. This reinforced the view that the markets draw confidence from fiscal tightening.

Second, at several stages during the crisis, when the peso weakened, the Mexican authorities tightened monetary policy by raising interest rates. This reinforced the view that such monetary tightening worked. Nominal and real interest rates in Mexico during the course of 1995 are shown in Figure 5.

Third, it took a long time for the Mexican authorities to regain market confidence. As late as November 1995, nearly a year after the devaluation, there was another bout of market nervousness, which perplexed the authorities. Market participants said that monetary policy was difficult to understand, and insufficiently tight. In addition, as the *Wall Street Journal* explained following the announcement of the government's economic assumptions – including 3 percent growth – for 1996, “The trouble is that markets are questioning Mexico's ‘ability to generate economic growth’”.¹⁴ But by then, the V-shaped Mexican recovery was already under way, and GDP grew over 5 percent in 1996.

In addition, we should recall that the Mexican crisis produced serious contagion effects. As the Mexican situation worsened, so did capital market conditions for other Latin American countries. Latin American spreads moved almost in lockstep over this period (Figure 3 shows spreads for Argentina, Mexico, Brazil), and the slowdown in Mexico spread in 1995 to Argentina, which experienced negative growth (-2.8 percent) as a result of the tequila crisis.¹⁵ For a few days in mid-January 1995, the Philippine peso and Hong Kong dollar came under pressure – a reaction that at the time seemed almost impossible to understand. The power of contagion became fully evident; what to do about it was less evident.

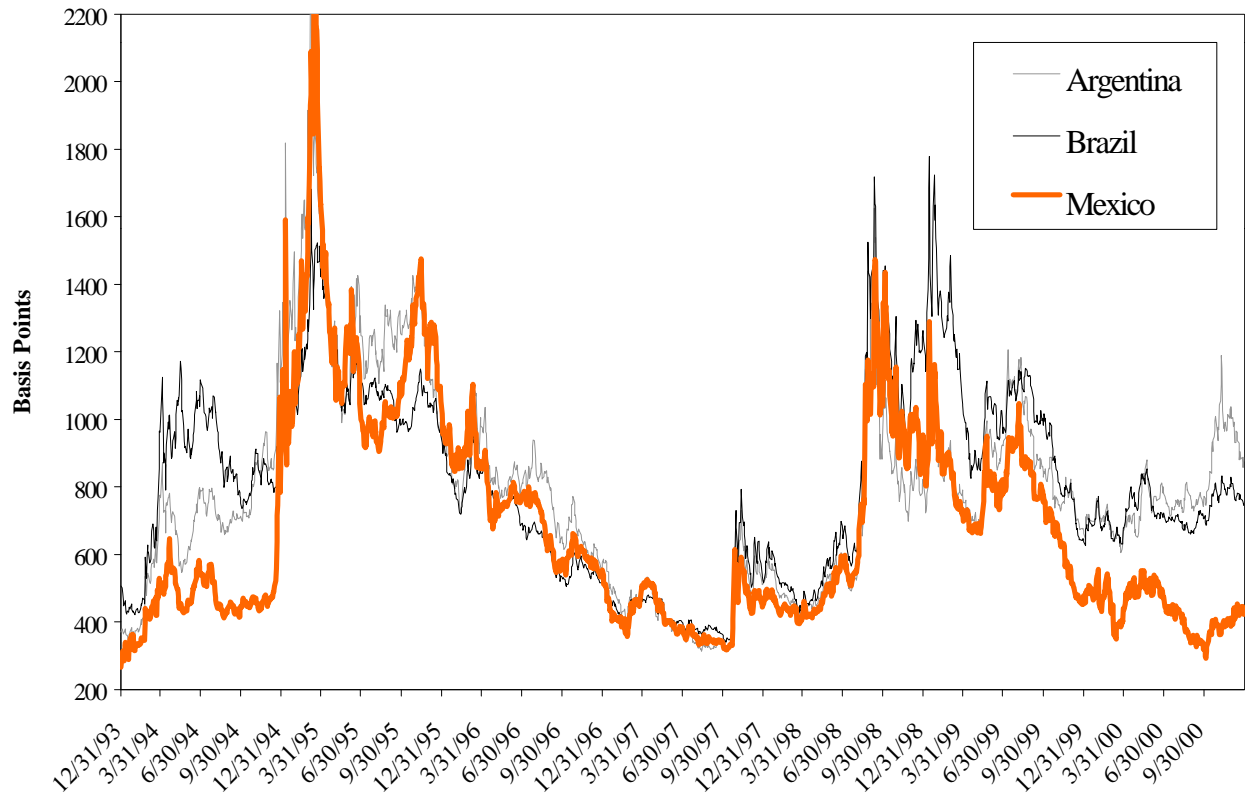
At the start, the Thai crisis looked very much like a reprise of the Mexican crisis: Thailand was defending a pegged exchange rate, in the face of a very large current account deficit (nearly 8 percent of GDP in both 1995 and 1996), a weak stock market, and weakening external confidence. Although this crisis was foreseen by the IMF and others, the Thai authorities ignored many warnings and did not take action until their international reserves were virtually exhausted.

Eventually, on July 2, Thailand allowed the baht to float; it depreciated immediately by about 10 percent, but then as no other action was taken along with the float, the currency continued to depreciate. At the end of July, Thailand requested an IMF program. The

¹⁴ *Wall Street Journal*, November 15, 1995: “Mexico Stands By '96 Growth Forecast”.

¹⁵ The data show very little slowdown in Brazilian growth in 1995, shortly after the *real plan* stabilization.

Figure 3: Latin America: EMBI Subindex Spreads (1994-2000)



program, which included measures to deal with serious weaknesses in the financial sector, was approved by the Executive Board of the IMF on August 20. After the program had been agreed, on August 12, the Japanese Ministry of Finance called together the main Japanese creditor banks of Thailand, who in a meeting with the Thai authorities, agreed to maintain their credit lines in Thailand.

One of the most controversial aspects of the Thai program, and one that badly colored relations with the authorities, was the requirement that the Thais publish full data on the reserves and on forward foreign exchange commitments at the start of the program. This was insisted on by the Fund's largest shareholder, and at the time I had some sympathy for the Thai position. I subsequently decided I was wrong, and that to have let the program go ahead with incorrect data on the reserves, leaving the truth as a sword of Damocles hanging over market confidence and trust in the information it was receiving, would have been a big mistake. If I had this to do all over again, the only change would have been to insist that the data be made public well before the start of the program, so that the bad news was out of the way before the program started, rather than coming out simultaneously with the start of the program.

The devaluation of the baht raised questions about exchange rate arrangements in neighboring countries. The Philippine peso was allowed to float on July 11 – the Philippines was at that time in an IMF program, and the decision was taken in consultation with the Fund. Acting preemptively, Indonesia almost immediately broadened its intervention band from 8 to 12 percent. On July 14, the Malaysian ringgit was allowed to float. Nonetheless, the pressures on the currencies continued, and on August 14 the Indonesian rupiah was also floated. The currencies were in each case defended by raising interest rates, though to a lesser extent in Malaysia and Korea (Figure 4).

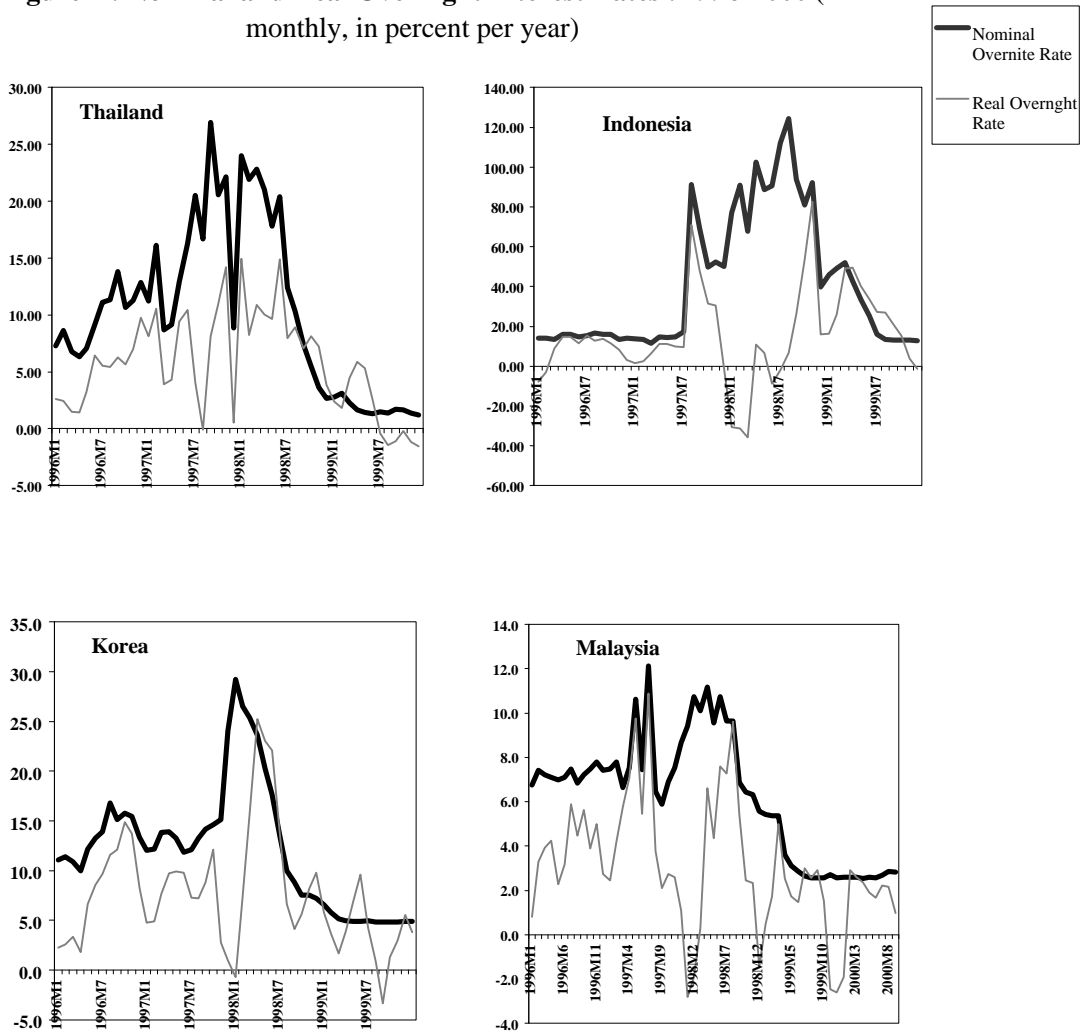
Despite the program with Thailand, and the continuing pressures on other Asian currencies in the third quarter of 1997, there was little public indication, and there were probably few premonitions among policymakers, of the storm that was about to hit these economies in just a few months. Thailand seemed to be struggling, but that was explicable as a result of the failure of the government to act firmly to implement its IMF-supported program. The Philippines was in some difficulty but managing in its own way, with the veteran Governor Singson in charge of the currency, to control the situation.

Indonesia, with its strong fiscal position, and its preemptive actions on the currency, was regarded as taking the right measures to deal with pressures. The Indonesian policymakers themselves were deeply aware of the weaknesses in their financial sector, and were looking to the IMF for a program to help them strengthen the sector.^{16 17}

¹⁶ See "Causes and Implications of the Asian Crisis: An Indonesian View", by Soedradjad Djiwandono, then Governor of Bank Indonesia, in William C. Hunter, George G. Kaufman, and Thomas H. Krueger (editors), *The Asian Financial Crisis*. Boston: Kluwer Academic Press, 1999, pp. 115-126.

¹⁷ In September, en route to the Annual Meetings in Hong Kong, together with Bijan Aghevli, Deputy Director of the Asia Department of the Fund, I visited Indonesia, and discussed the possibility of a precautionary program, that would focus on the financial sector. As evidenced by the fact that the discussions were about a precautionary program, there was no sense at that time of a generalized crisis.

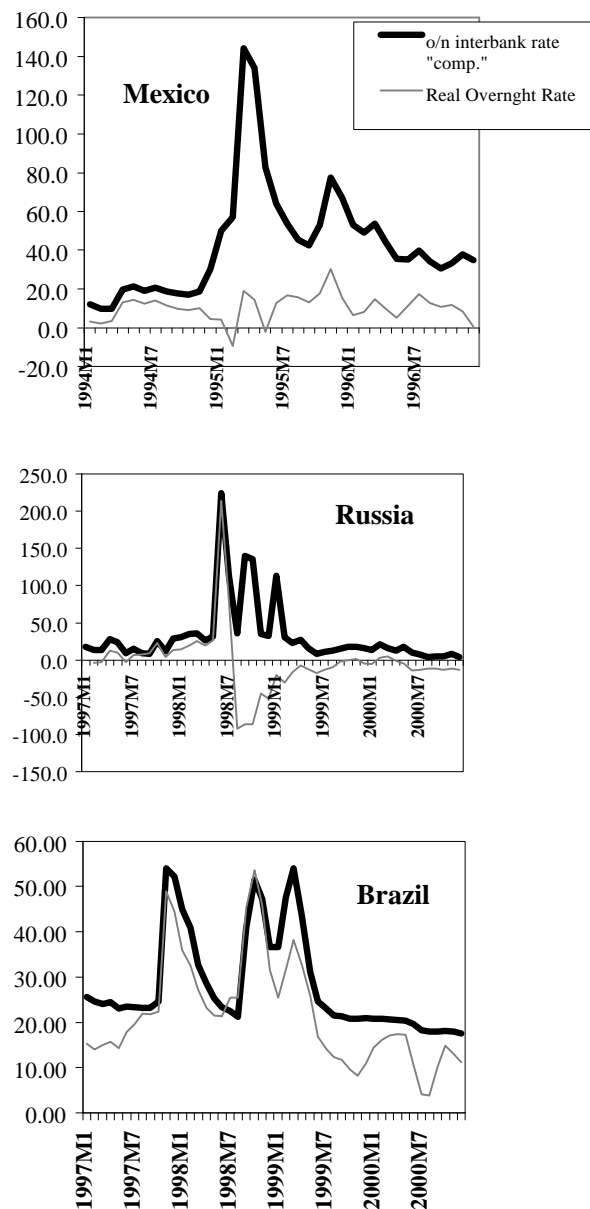
Figure 4 : Nominal and Real Overnight Interest Rates : 1996-2000 (
monthly, in percent per year)



Source: IMF

The rates used are monthly. Real Rates are obtained by deflating nominal interest rates by the 3-month centered moving average of the CPI

Figure 5. Nominal and Real Overnight Interest Rates (monthly, in percent per year)



Source: IMF

Real Rates are obtained by deflating nominal interest rates by the 3-month centered moving average of the CPI

There had been signs of difficulty in the Korean economy since the start of the year: the stock market kept declining, and several chaebols had gone bankrupt. Nonetheless, Korea was regarded as in a different league from the ASEAN countries, especially since becoming an OECD member. I had noticed a brief news report on August 26 saying that the Korean government had “promised to ensure the payment of foreign debts held by Korean lenders”,¹⁸ and had wondered why such a guarantee was necessary, but had failed to follow up. I had kept on my desk a *Wall Street Journal* article of August 18, 1997, quoting the head of foreign exchange for Asia at a leading investment bank:

‘After the [Thai] baht, the [Malaysian] ringgit and the [Indonesian] rupiah, we feel that maybe we’ve been neglecting the Hong Kong dollar. ... We might succeed, you never know. At least we’ll see how much the HKMA is willing to spend in its defense’

The 1997 Annual Meetings of the IMF and the World Bank took place from September 23-25 in Hong Kong, following its return to Chinese sovereignty. Aside from the difficulties in South East Asia, the world economy seemed to be in good shape. But there was considerable unease among Asian delegates, particularly those from ASEAN countries.

After the Hong Kong meetings the crisis worsened, following Taiwan’s devaluation on October 17. This was different, because Taiwan had such large reserves (over \$90 billion). Then, in the week starting October 20, the pressure on Hong Kong mounted, with hedge funds reportedly pursuing a fail-safe strategy of shorting both the Hong Kong dollar and the Hong Kong stock market: the pressure on the currency would cause interest rates to rise, which would cause the stock market to fall.¹⁹ The stock market fell over 25 percent in that week.

As Figure 1 suggests, the attack on Hong Kong started a second, and the more serious phase of the crisis. Although we did not know it at the time, Korean reserves were under strong pressure.

Discussions between the IMF and Indonesia for a possible precautionary program, focused on restructuring the financial sector, had begun in September, with no special sense of urgency. But as the regional crisis worsened, the nature and scope of the program changed. A mission to negotiate a regular standby arrangement arrived in Jakarta on October 11, 1997. Agreement on an economic program was reached (a Letter of Intent was signed) on October 31; the program was agreed to by the Executive Board of the IMF on November 5.

Market pressures on Korea were mounting during November. On November 17, the trading band for the Korean won was widened, and the delicate dance that would lead at the end of the month to negotiations between Korea and the IMF for a program began. During this dance, we began to discover that Korea’s reserves were rapidly becoming exhausted. The official request for a program came on November 21, a Friday. Negotiations began in Seoul on

¹⁸ *Wall Street Journal*, August 26, 1997, p. A12

¹⁹ The same *Wall Street Journal* article of August 18, 1997 noted above, quotes the manager of one large hedge fund who said “he is convinced the Hong Kong dollar is vulnerable because the Hong Kong stock market is vulnerable”.

November 26, and concluded on December 3, by which date Korea was virtually out of reserves. That was the most intense week of negotiations during the entire crisis period. On December 4, the IMF Board approved an approximately \$21 (SDR15.5) billion loan for Korea, of which \$5.5 billion became available immediately.

At the start, the Indonesian and Korean crises were ascribed – particularly by policymakers in the two countries – to speculative attacks caused by contagion. The normal macroeconomic indicators were healthy in both countries. Although Korean exports, like those of Thailand, had been hit hard by the slowdown in electronics exports at the end of 1996, and the current account deficit that year had been above 4 percent of GDP, current account prospects for 1997 looked better. Both countries, though, had been defending pegged exchange rates, both had large external – largely private sector – debts, and financial sectors in both countries were believed to be very weak.

Corporate leverage ratios varied widely among Asian countries. In a comparison for 1988-96 among 45 countries, including most of the OECD, leverage – defined as the ratio of total debt to equity – was by far the highest in Korea, with Japan next. The average leverage ratios in Thailand, Indonesia, and Hong Kong were among the top ten, while Taiwan was among the lowest, with the Philippines, Singapore and Malaysia also below average.²⁰

Indonesia and Thailand were highly vulnerable to a speculative attack, and each suffered one. There has been some discussion in the literature about the nature of the contagion that led to the speculative attacks: the notion that the Thai crisis was a “wake-up call”, which drew attention to similar difficulties in other countries is persuasive, so long as one recalls that the difficulties in the Korean economy had been manifesting themselves from the start of 1997, even if they had not been recognized as implying a likely financial crisis.

Both the Russian and Brazilian crises of 1998 were more traditional in nature, for both countries had serious macroeconomic problems at the time of the crisis. Russia had performed very well under an IMF standby agreement in 1995, when it succeeded in sharply reducing inflation through the use of a crawling peg exchange rate anchor. Agreement was reached on an Extended Fund Facility loan in March 1996. With the poor health of President Yeltsin, performance under the EFF was fitful. The budget deficit for 1996 and 1997 exceeded 7 percent of GDP. Although government debt was less than 35 percent of GDP, with GDP declining, fiscal sustainability was in doubt; and interest rates rose accordingly, adding to the doubts on fiscal sustainability. As oil prices declined in 1998, both the fiscal situation and the balance of payments worsened, market confidence in Russia declined further, and the pressures on the exchange rate and interest rates intensified.

Negotiations to augment Russia’s financing from the IMF began in June 1998, and agreement was reached on a set of measures and a large-scale financing package in July. The package was described in the press as worth \$22.6 billion, of which \$15.1 billion was from the IMF and \$6 billion from the World Bank. These figures included undisbursed amounts already committed under existing facilities. The new conditionality was primarily fiscal, with the

²⁰ See Stijn Claessens, Simeon Djankov and Larry Lang, “Corporate Growth, Financing and Risks in the Decade before East Asia’s Financial Crisis”, *Emerging Markets Quarterly*, 4, 1, (September 1999), 37-56.

intent being both to ensure the collection of taxes, and to restore to the center some of the revenues that had been lost to the regions. With the government lacking a majority in the Duma, much of economic policy during the nineties had been implemented – highly imperfectly – by decree. This time the IMF took the view that Duma support for the program was essential, and the program included ten measures that would have to be approved by the Duma as prior conditions for the tranche of \$5.6 billion.²¹ In addition, an attempt was made by the Russians, with the assistance of western advisers, to restructure part of the debt, to increase its maturity (thereby reducing needed rollovers) and reduce its interest cost.

In the event, the government succeeded in passing 8 of the 10 measures through the Duma, which was a considerable achievement relative to its previous record. But given the failure to pass all ten measures, the Fund reduced the tranche to \$4.8 billion. Relatively little debt was exchanged, and the enhanced program was therefore off to a poor start. Market pressures soon intensified, and the Russians requested more financing. To the surprise of those who had relied on the so-called moral hazard play, the request was refused, and on the weekend of August 14-16, Russia decided both to devalue and to default on its debt.

The Russians had discussed the possibilities of trying either to devalue or to restructure the debt, without doing the other, but concluded that either action would quickly lead to the other. Hence they decided to do both. The anguished outrage and the massive contagion that resulted suggested that these actions had been a surprise to many. However it is difficult to believe that investors receiving triple digit dollar returns on their GKO's did not regard the situation as highly risky – even taking into account the fact that those left holding GKO's at the end must have been the market participants who most firmly believed that Russia would be able to hold on.

Brazil had carried out an impressively successful inflation stabilization with the *plan real* in 1994, which transited into a pegged exchange rate against the dollar. Brazil appeared virtually untouched by the tequila crisis in 1995, but the real exchange rate was appreciating, and fiscal policy was becoming more expansionary even as post-stabilization plan growth continued at only a modest rate. Pressures on the currency were beaten back through a high-interest rate defense in 1997 (Figure 5), but the pressures intensified following the Russian crisis in 1998, and interest rates rose again. As the negotiations for a Brazilian program intensified in September 1998, many voices called for a devaluation, but the authorities argued vehemently that letting go of the exchange rate would revive inflation, and that the exchange rate was at most overvalued by only 10 percent.

Given the delicate state of the emerging markets in the fall of 1998, and Brazilian opposition to devaluation, the program agreed with the IMF on November 13 1998 supported the pegged exchange rate. It did, though, include an agreement that the rate of crawl would be stepped up, to allow for a real devaluation of about 10 percent over the coming twelve months. On the Brazilian side, the budget was to be tightened by 2.5% of GDP.

²¹ Note the increase in the number of program conditions resulting from a desire to specify the necessary measures precisely.

The Executive Board approved the program on December 2, despite considerable misgivings expressed by several Executive Directors. In the event, the peg did not hold for long, and Brazil was forced to devalue on January 13, and to begin to float shortly thereafter. The broad outlines of a new framework for macroeconomic policy, including inflation targeting, were agreed early in February, and on March 30 the revised program was approved by the Executive Board.

To summarize on the origins of the crises: the Mexican, Thai, Russian, and Brazilian crises all looked more or less like conventional old-fashioned crises, in which an unsustainable current account combined with a pegged exchange rate to lead to a crisis. However neither in Mexico nor in Thailand was there a serious fiscal problem. Financial sector weaknesses appeared especially important in Thailand, not least because its financial sector was much larger than that in the three non-Asian crisis countries. The crises in Indonesia and Korea looked different from the beginning, because both the current account and the fiscal deficits were small, and contagion seemed to play the dominant role. But the contagion hit economies with serious financial and corporate sector weaknesses, whose impact was magnified as market pressures increased.

Of the six crises, the IMF was called in to four of them – Mexico and the three Asian cases – after the pegged exchange rate had been abandoned. In the two other cases, the IMF was lending to help defend a pegged exchange rate, but neither defense ultimately succeeded. In each of the Brazilian and Russian cases, the exchange rate had originally been pegged as part of a successful disinflation program, but in neither case did the country succeed in moving out of the pegged regime in time. It should be noted though that during this period there was a successful defense of a (hard) pegged exchange rate regime: in April 1995, with Argentina in crisis as a result of contagion from Mexico, an IMF program that helped to maintain convertibility and restore growth was negotiated with that country.

Effects of the Crises

The effects of the crises on the affected economies were, for the most part, dramatic (Table 2 and Appendix Table 1). As can be seen in Figure 6, GDP in Mexico declined by 6.2 percent in 1995; in Thailand output fell nearly 11 percent in 1998; in Indonesia the decline in 1998 was 13 percent; in Korea the 1998 decline was nearly 7 percent.²² However the decline in output following the Russian devaluation and default was relatively short-lived, and with the combined effects of both the devaluation and higher oil prices, output in 1999 rose for the first time in a decade, by over 3 percent, to be followed in 2000 by spectacular growth of over 7 percent. In Brazil, the revised program of March 1999 assumed an output decline of nearly 4 percent; in fact output in 1999 increased, by just under 1 percent.

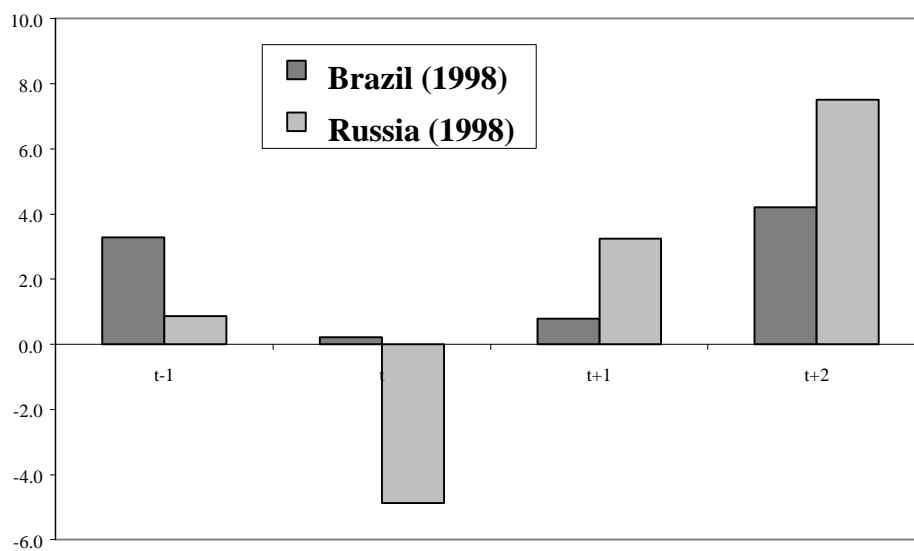
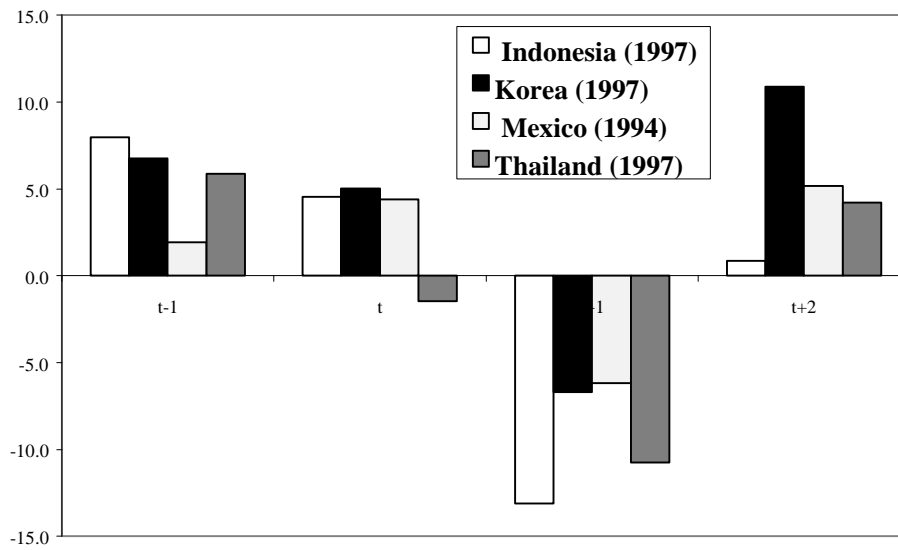
²² The losses in output should be measured relative to some estimate of trend growth. See *World Economic Outlook*, (May 1999) for estimates of output losses in the Asian crisis countries.

**Table 2: Selected Macroeconomic Indicators For Capital Account
Crisis Countries**

	t-1	t	t+1
Real GDP Growth (in percent per year)	4.4	1.3	-5.5
Consumer Price Index (in percent per year)	8.4	9.0	33.2
Fiscal Balance (General Government Balance in percent of GDP)	-1.4	-3.0	-3.2
Current Account (in percent of GDP)	-4.2	-2.9	6.1
External Debt (in percent of GDP)	37.3	47.2	78.4

The capital account crisis countries include Mexico(1994), Thailand(1997), Indonesia(1997), Korea(1997), Russia(1998) and Brazil(1998)

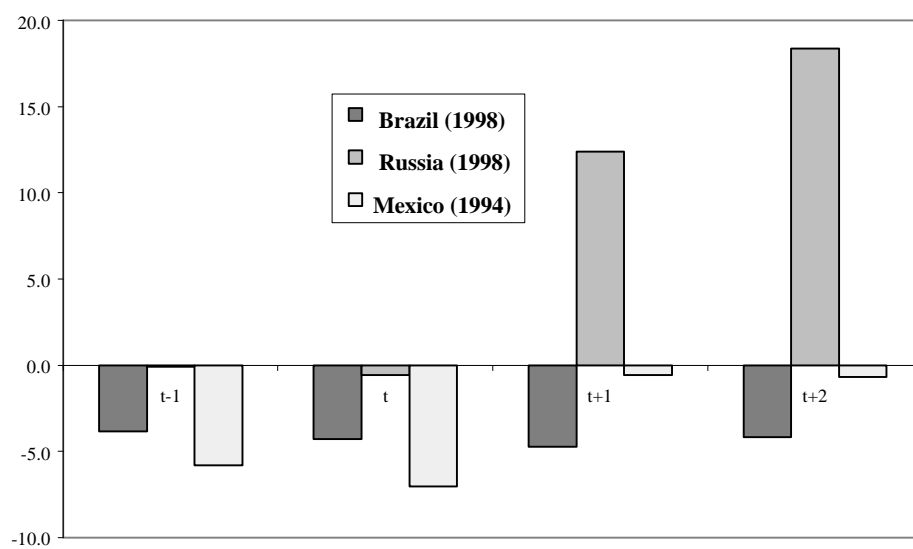
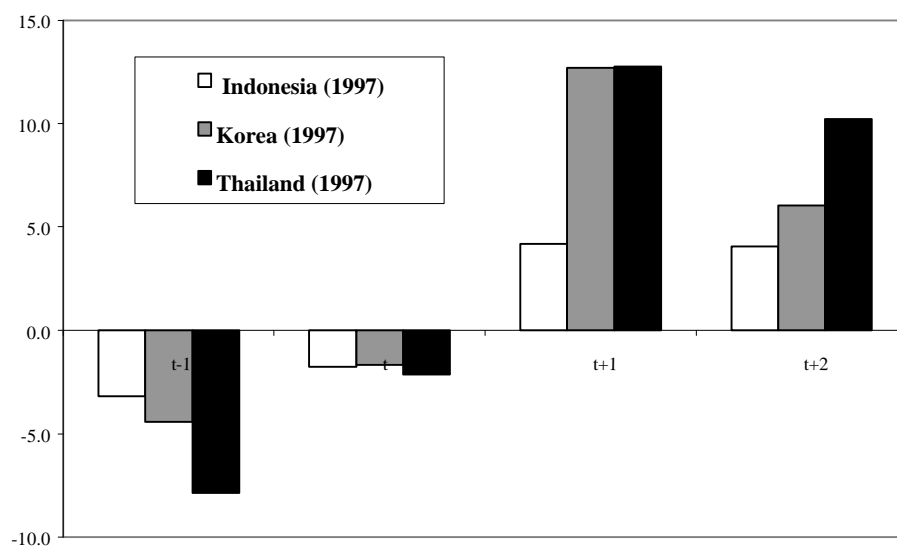
Figure 6: Real GDP Growth (in percent per year)



Source: IMF

t = 1994 for Mexico, 1997 for Thailand, Indonesia and Korea, 1998 for Russia, 1998 for Brazil

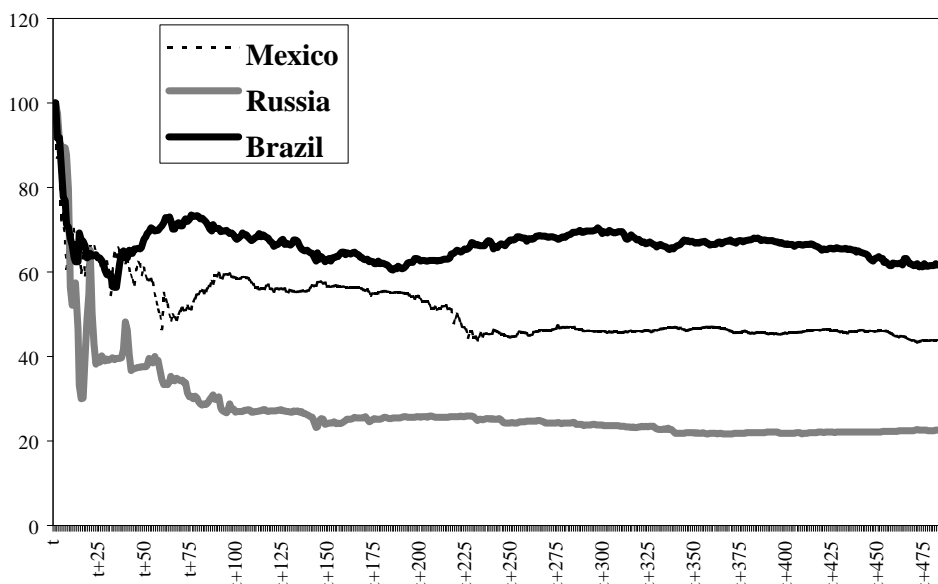
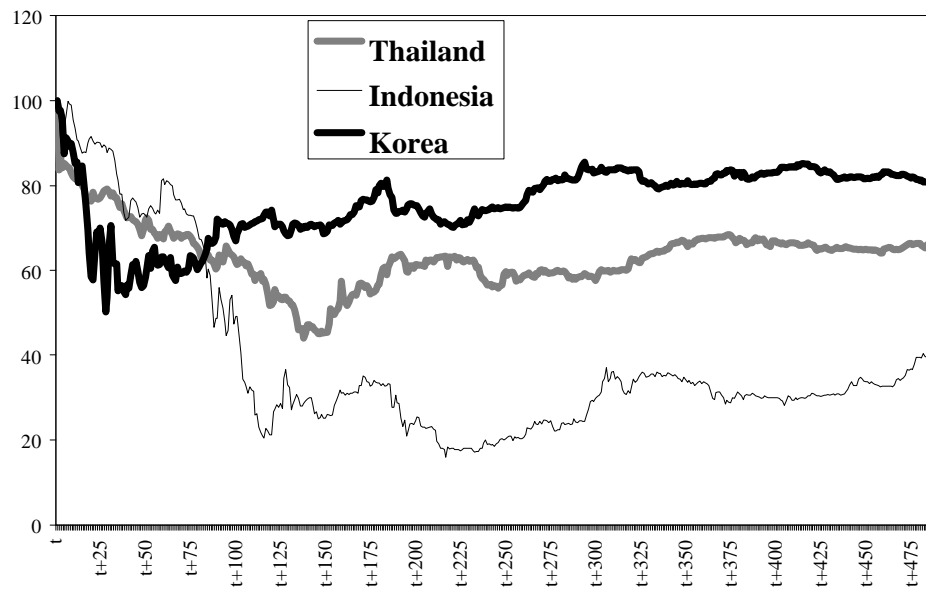
Figure 7: Current Account (percent of GDP)



Source: IMF

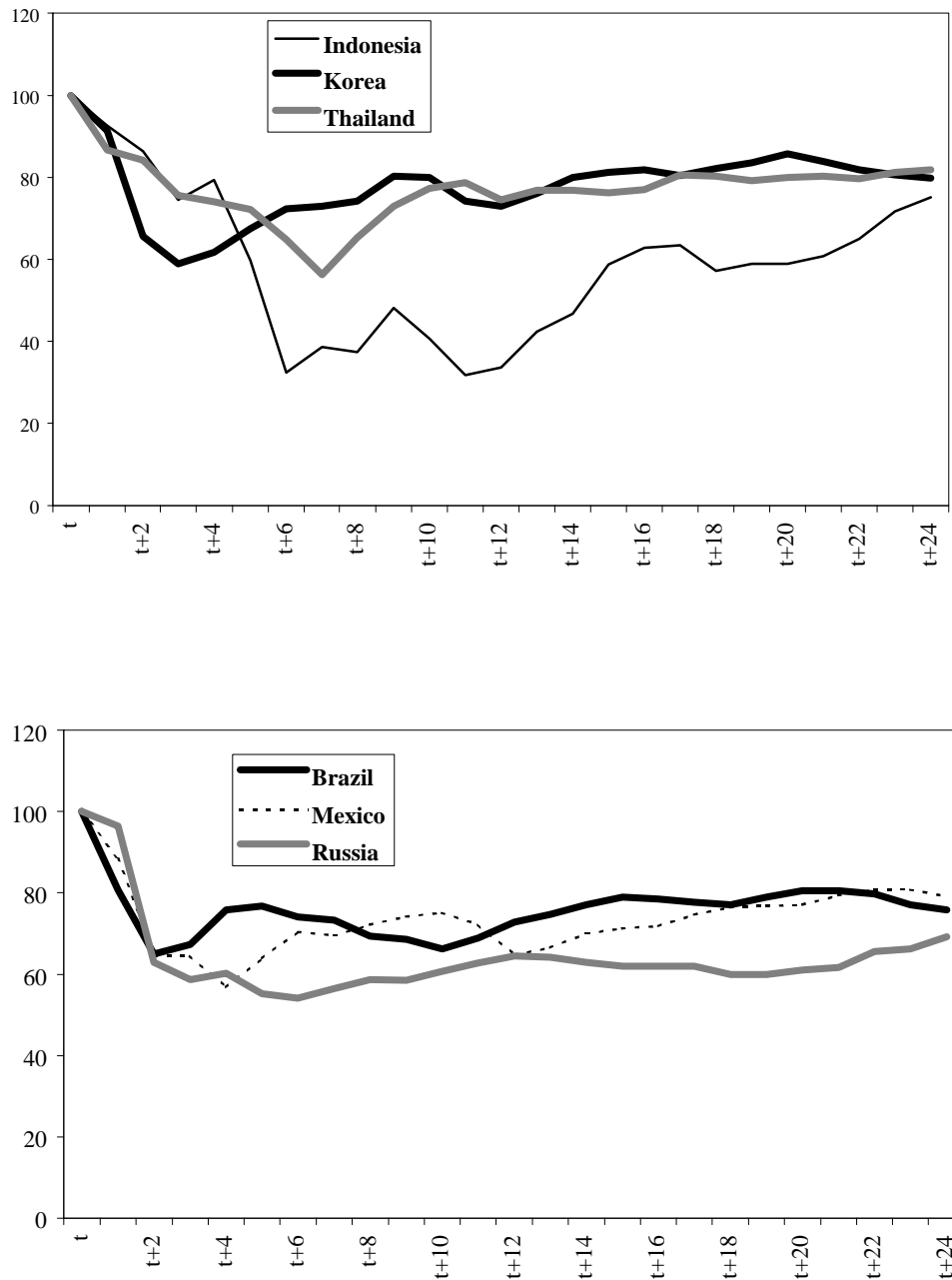
t = 1994 for Mexico, 1997 for Thailand, Indonesia and Korea, 1998 for Russia, 1998 for Brazil

Figure 8 : Daily Nominal Exchange Rates (*Value of the national currency in terms of US dollar, normalized*)



Source: IMF, the exchange rate a day before the devaluation is normalized equal to 100, $t = 12/19/94$ for Mexico, 7/1/97 for Thailand, 8/13/97 for Indonesia, 11/16/97 for Korea, 8/16/98 for Russia and 1/12/99 for Brazil

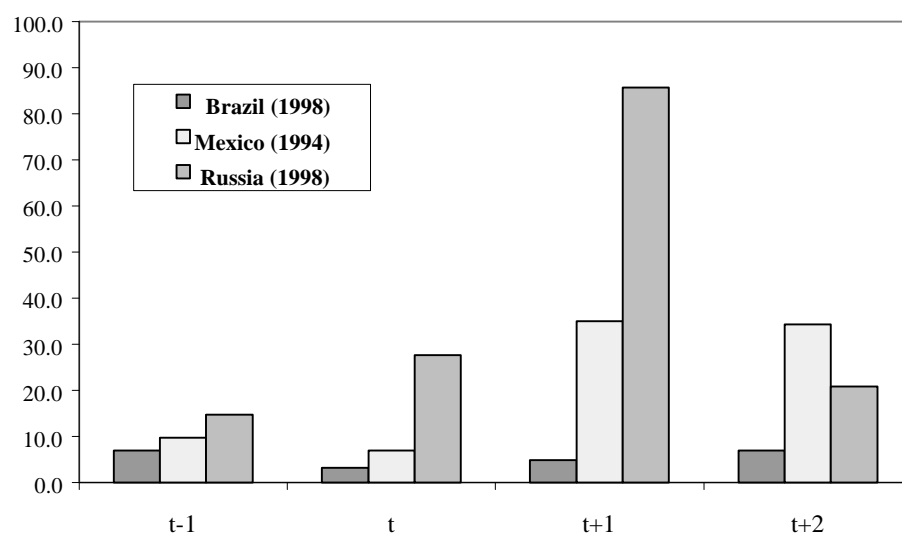
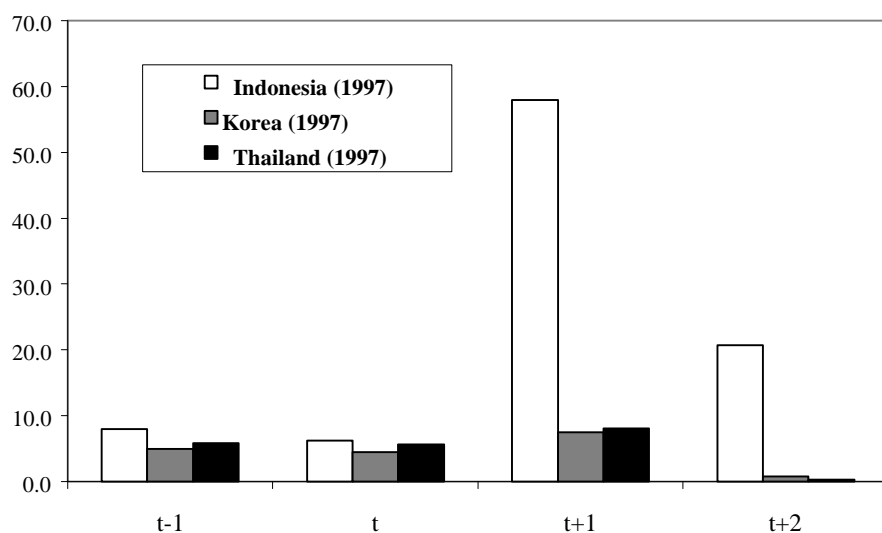
Figure 9 : Real effective Exchange Rate (*monthly, normalized*)



Source:IMF

Normalization : The exchange rates for the month before the devaluation are normalized to be 100.

Figure 10 : Inflation Rates (*in percent per year*)



Source: IMF, t = 1994 for Mexico, 1997 for Thailand, Indonesia and Korea, 1998 for Russia, and 1999 for Brazil.

Corresponding to the recessions in Mexico, Thailand, Indonesia, and Korea were massive turnarounds in the current account (figure 7): from a 7 percent of GDP deficit in 1994 to near-balance in 1995 in Mexico; from an 8 percent deficit in 1996 to a nearly 13 percent surplus in 1998 in Thailand – an incredible turnaround of over 20 percent of GDP; from a 3 percent deficit in 1996 in Indonesia to a 4 percent surplus in 1998; and from a 4 percent deficit in 1996 to a 13 percent surplus in 1998 in Korea. The current account turnaround of 13 percent of GDP in Russia between 1998 and 1999 was also impressive, but that owed much to the change in the price of oil. In the Brazilian case, the current account was essentially unchanged following the crisis – the result of a small improvement in the trade account, combined with a worsening of the services balance, due to higher debt payments. The failure of the Brazilian current account to strengthen significantly despite an over 50 percent devaluation stands in marked contrast to what happened in Mexico – which benefited from NAFTA and United States growth – and in the Asian economies.

The crises had dramatic impacts on both nominal and real exchange rates (Figures 8 and 9). On average, the nominal exchange rate depreciated by 45 percent over the six months following the devaluation, and the real exchange rate by 31 percent. The extent of these devaluations is especially remarkable given that pre-devaluation estimates of overvaluation rarely exceeded 25 percent, and more typically were in the 10-15 percent range. These large exchange rate movements reflect the massive capital flow reversals that took place during the crises. Later the real exchange rate appreciated from its crisis levels, with real devaluations after two years being about 20 - 25 percent.

The impacts of the crises on inflation varied greatly (Figure 10). In Mexico, Indonesia, and Russia, the devaluation fed through in large measure to inflation; in Thailand, Korea, and Brazil, the inflation rate increased very little despite the large nominal devaluations. Considering that the fear of inflation – a result of Brazil's long inflationary history – was an important factor underlying the Brazilian reluctance to devalue, the Brazilian result is particularly interesting. The reasons for the different rates of passthrough are not obvious; one factor in Brazil is that monetary policy was restrictive both before and after the devaluation.

The financial sector impacts of the crises also varied. In Mexico, the government undertook many measures to shore up the financial system in the wake of the crisis, including mechanisms to allow households to roll over mortgages, support for banks to borrow to strengthen capital, and assistance in the rollover of foreign debts of the banks. But financial sector restructuring was not central to the program – indeed there was no financial sector conditionality in the IMF program. The impacts in the Asian crisis countries, as well as in Malaysia, but not in the Philippines, were heavy. (The financial sector actions taken in Thailand, Indonesia and Korea are summarized in Appendix Tables 3-5.). By contrast, the Brazilian devaluation had very little impact on the banking system, for two reasons: first, the financial system was both smaller (as a result of past inflations and lower savings rates) and stronger (as a result of government policies in the years leading up to the crisis); and second, the devaluation was widely and long anticipated, giving time for market participants to adjust in advance – with the government providing the means to adjust by running down reserves and

selling exchange rate linked instruments. In Russia, the debt default hit the banks hard; however the real effects of the banking sector crisis were limited because the banking system had not played any serious role in financing investment.

III. IMF Programs

The crises – particularly the Asian crisis – generated an extraordinary storm of criticism about the IMF-supported programs put in place to deal with them. Appendix Tables 2-7 contain brief descriptions of the programs. As is well known, the controversies relate to (i) fiscal policy, (ii) monetary and exchange rate policies – particularly interest rate defenses of the currency, (iii) structural policies – particularly those relating to the financial sector, as well as the question of whether the programs had excessive conditionality, (iv) the interrelated questions of private sector involvement and capital controls, (v) the size of the financing packages, in relation to the nature of the crisis, with some arguing that the crises were liquidity crises that demanded larger financing, and (vi) the overall question of why the programs did not rapidly restore confidence.

I will take up these issues in turn.

Fiscal policy

One of the standard jibes at the IMF is that the initials stand for “It’s mostly fiscal”. That belief does tend to permeate the Fund, and with good reason. Often a current account problem, generally associated with domestic overheating, seems related to fiscal excess. But even if a current account problem was not caused by fiscal excess, fiscal tightening is typically the best macroeconomic policy tool to reduce the external deficit in a state of domestic excess demand, for monetary tightening (with a flexible exchange rate) tends to produce an appreciation. And, according to the Mundell-Fleming model, if the exchange rate is fixed, monetary contraction tends in the short run to produce a widening of the current account deficit, followed by capital inflows that have to be monetized – not what is needed to reduce the current account deficit.

In the Mexican crisis, a fiscal tightening was instrumental in the recovery of confidence that followed the introduction of the March 9, 1995 revised program. There was also a tendency following the Mexican devaluation to hunt for a hidden deficit, with the quarry soon being located in quasi-fiscal activities, including development bank lending. This led to the conclusion that there had, after all, been excessive fiscal spending in the runup to the Mexican crisis.

Table 3 shows the fiscal adjustments included at different stages of the IMF-supported programs in Asia, Russia, and Brazil. Relative to the previous year, the initial (August 1997) Thai program called for an increase in the central government surplus of 2.1 percent of GDP, which would correspond to a larger negative fiscal impulse. The request for such a fiscal tightening despite the budget being close to balance initially, was justified by two factors: the

Table 3: Evolution of Fiscal Performance Criteria and Indicative Targets (in percent of GDP)

Country	Fiscal Performance Criteria	Previous year	Original Program	First Review	Second Review	Third Review	Fourth Review	Outcome
Indonesia (FY98/99)	Overall central government balance	0.8	1.0	-3.2	-8.5	-8.5	-8.5	-2.1
Korea (1998)	Central Government Balance	-0.5	1.0	-0.7	-0.9	-3.3	-4.2	-3.9
Thailand (FY97/98)	Central Government Balance	-1.1	1.1	1.0	-1.6	-2.4	-2.7	-2.6
Mexico(1995)	Overall Balance of NFPS (Non-financial public sector)	0	0.5	0.5	0.5	0.5		0.9
Brazil (1999)	PSBR(Private Sector Borrowing Requirement -: deficit)	-8.1	-4.7	-10.4	-10.4	-9.0	-10.8	-9.5
	Primary Balance	0.1	2.6	3.1	3.1	3.1	3.1	3.1
Russia(1998)	Primary Balance	-2.8	2.9					-3

Source: IMF

need to reduce the large current account deficit of 1996; and the anticipation that there would be substantial costs of cleaning up the financial system.

It became clear during September and October that the crisis was taking a much larger toll on aggregate demand in Thailand than had previously been expected; in addition the exchange rate had depreciated more than expected. There was a lively debate within the staff of the IMF, and also with the Board, on how fiscal policy should be adjusted. It was recognized that fiscal easing was appropriate from the cyclical viewpoint, but there was a concern that the markets would view fiscal easing as inappropriate at a time of rapid capital outflows, when the priority was to stop those outflows.

The mission that was sent to Thailand at the end of October to conduct the first review of the program was told to allow the automatic stabilizers to work, i.e. to allow the budget deficit to widen. Instead it came back with an essentially unchanged deficit, which implied a negative fiscal impulse. The reason? Problems in the timing of an expected change of government combined with the authorities' natural conservatism – a virtue in normal times – made it difficult to negotiate a larger deficit at that point.

The initial agreement with Indonesia also included a small planned increase in the budget surplus. This was justified internally mainly as a down payment on the likely costs of financial sector restructuring.²³ The complexities of judging market reactions to fiscal policy changes became clear on January 6, 1998, when President Suharto personally presented the budget for 1998. In light of changed economic conditions, especially the greater than anticipated depreciation of the currency, the proposed deficit of 1% exceeded that in the program by 2% of GDP. My personal reaction was that the budget was entirely reasonable.²⁴ Nonetheless, the market reaction was extremely adverse – whether it was due to the view that the budget violated the IMF agreement, or because the larger deficit was viewed as inappropriate to the economic situation, is difficult to say.

The initial agreement with Korea, also included a fiscal tightening, partly because it had had an over 4 percent of GDP current account deficit in 1996, partly to deal with financial sector restructuring costs, which were anticipated to be large.

The internal debate over appropriate fiscal policy, both within the staff and with the Board, intensified as the crisis worsened, and as outside criticisms increased.²⁵ By early 1998,

²³ Generally, the staff took the view that, *ceteris paribus*, the budget should be strengthened on this account by an amount equal to the anticipated real interest costs of servicing the debt associated with financial sector restructuring.

²⁴ At the time, there was a newspaper report out of Washington saying that official circles were upset by the budget. At least one Asian source attributed this reaction to the IMF; I do not believe the IMF was the source of that report.

²⁵ Policy debates within the Fund are often vigorous, with a range of views being expressed. However, once a decision on a particular course of action has been taken, IMF discipline generally operates to present a united front. I believe this is the best way to operate for an agency that has to give policy advice and negotiate, but some believe the debates should continue in public.

budget targets began to be eased, and through most of the rest of the crisis the Fund found itself in the unaccustomed position of criticizing the failure of the governments concerned to make deficits as large as targeted.

Fiscal contraction was seen as necessary to ensure debt sustainability in both the Russian and Brazilian programs. The March 1999 Brazilian program targeted a primary surplus such that, under reasonably cautious interest rate assumptions, the debt to GDP ratio would gradually decline. One criticism heard in the Russian case was that since the main problem was not the size of the debt, but rather the extremely high interest rates, the IMF would have done better in reassuring markets in July 98 by providing financing without conditionality on the passage of fiscal measures by the Duma. The Fund's view was that the Russian failure to deal with the fiscal deficit over a period of years had raised the debt and spreads to the point where markets no longer believed the debt was sustainable, and that increased lending to Russia would not be justified unless it took measures to deal with the underlying fiscal problem.

What lessons have been drawn from these episodes? Certainly, that fiscal contraction may not be necessary in all balance of payments crises. If debt sustainability is not an issue, and if the contraction of domestic demand – for instance because of a decline in investment – combined with devaluation will produce a sustainable current account, then fiscal policy can be used countercyclically. But we should recognize also that it has been rare for countries with a strong fiscal situation to get into an external financing crisis, and that there have been valid concerns about debt sustainability in the other major capital account crises of recent years.

One more point: given the rapidity with which fiscal contractions were reversed in the Asian crisis countries, I do not believe much damage was done by the initial fiscal policy targets. Within less than a year of the start of the crisis in Thailand and Korea, sharp growth recoveries were under way.

Monetary and exchange rate policies

No aspect of the IMF-supported programs in Asia was more controversial than the interest rate policies. In all programs, interest rates were raised at the start, to try to limit the extent of currency depreciation. Nominal interest rates were also very high during the Mexican crises, and in defending the currency in both Brazil and Russia.²⁶ Overnight nominal and real rates in the six crisis countries, as well as in Malaysia, are shown in Figures 4 and 5.

I will discuss three monetary and exchange rate policy issues: the use of high interest rates to defend a currency peg; whether interest rates were generally too high at the early stages of programs, particularly in the Asian crisis countries; and exchange rate policy following a devaluation.

²⁶ I draw extensively in this section on Boorman *et al* (2000), pp 31-49, and Lane *et al* (2001), pp. 84-111.

Raising interest rates is the traditional way of defending a currency. If capital is flowing out of a country, it does not make sense to make the currency less attractive to hold by reducing the rate of return for doing so.

Maintenance of a policy of easy money that fuels a capital outflow under a pegged exchange rate likewise does not make sense. Provided the peg is still reasonably credible, money should tighten as capital flows out. This was done to only a limited extent in the Asian crisis countries before the decision was taken to widen bands or float. And permitting the disappearance of essentially all the nation's currency reserves without taking any serious policy action, as happened in both Thailand and Korea in 1997, simply defies understanding.²⁷

Interest rates were also used after the Asian devaluations in an effort to slow and reduce the extent of currency collapses. Programs typically included quantitative targets for some monetary magnitudes, be it the usual IMF pair of an upper bound on net domestic asset creation and a lower bound on net international reserves, or on net international reserves and the monetary base.²⁸ These targets were usually set for a particular review date, which meant that day-to-day monetary policy tactics were not tied down. There were accordingly understandings in some cases at some times that nominal interest rates would not be reduced if the currency was depreciating.

Underlying these monetary policy specifications was the belief that inflation could become a serious problem in the context of a currency crisis, and that tightening monetary policy in the face of depreciation would help stabilize the currency and prevent high inflation. Critics argued that higher interest rates greatly exacerbated the recessions, particularly given the high levels of indebtedness and leverage in the Asian countries, and either that allowing more depreciation would have been less costly than raising interest rates, and/or that higher interest rates in any case weakened the currency by so reducing growth prospects as to lead to a capital outflow.²⁹

IMF recommendations were based on the view that *both currency depreciation and high interest rates were damaging to business and consumers*, and thus the financial sector, when so much borrowing had taken place in dollars. Further, and this point was emphasized at the time, *interest rates would have to be raised only temporarily to stem the currency decline, and could then be reduced*, whereas allowing the exchange rate to depreciate would permanently raise the local currency value of dollar-denominated debts.³⁰ We were also concerned about the impact of currency declines in one country on the currency of its neighbors.

These arguments require an evaluation of the costs and benefits of alternative interest rate policies, with the costs of temporarily higher interest rates and less depreciation being compared to the costs of more depreciation and higher inflation. Given the extent of the

²⁷ I also find persuasive an argument of Michael Mussa's, that a country that fails to defend a pegged exchange rate will lose credibility for whatever monetary policy it pursues, including following a devaluation if that occurs.

²⁸ For details, see Table 5.5, p. 89, in Lane *et al* (2001).

²⁹ The arguments are reviewed in both Boorman *et al* (2000) and Lane *et al* (2001).

³⁰ This argument holds only to the extent that the real, as opposed to the nominal, exchange rate depreciated.

depreciations that took place at the early stages of the crises, we believed that interest rates should be raised. Were they raised too much? Initially, real interest rates were negative in each of the three crisis countries that had IMF programs. In both Thailand and Korea, the overnight nominal rate never exceeded 30 percent. There was a short period in Korea (March 1998) when the overnight real rate was probably around 25 percent, but that was the highest level reached in either of those countries.

Indonesia was different: there it seemed, after the currency collapse in November 1997 through January 1998, that inflation could be taking root, as the central bank lost control over credit creation as it tried to deal with a banking panic. While the nominal overnight rate reached 80 percent, real interest rates stayed negative through the first half of 1998. It was essential to regain monetary control in order to stabilize the exchange rate and prevent high inflation from becoming institutionalized. It was necessary to establish a basis for monetary policy, and also introduce instruments through which monetary policy could operate, and that was gradually achieved in the first half of 1998.

Nominal interest rates peaked in Korea in January 1998 and were below 10 percent by midyear; rates in Thailand also came down to very low levels soon after mid-year, while Indonesian rates stayed high through the end of 1998. High nominal interest rates were temporary in each case, the more so the less inflation occurred – and the very low passthrough of inflation in Korea and Thailand was indeed remarkable. It was almost certainly in significant part due to maintaining monetary control following the devaluations.

Interest rates in Malaysia were kept much lower than they were in the countries with IMF programs, even well before capital controls were imposed in August 1998. The extent of exchange rate depreciation in Malaysia was not very different from that in Korea and Thailand. Given Malaysia's better initial conditions than in the other crisis countries (particularly, less leverage, and less foreign currency debt), maintenance of lower interest rates combined with about the same rate of depreciation is consistent with the view that there was a tradeoff between the extent to which interest rates were raised and the currency depreciated. Interest rate patterns in the Philippines, which was in an IMF program throughout the crisis, were similar to those in Korea, with a similar extent of currency depreciation.

The conventional monetary policy prescriptions are inappropriate if raising interest rates leads to more depreciation, a Laffer curve of the exchange rate with respect to monetary policy. While there must be levels of nominal and real interest rates so high that the currency would be strengthened by cutting them, it is hard to believe that point was reached during the Asian crisis. Several studies have examined the short-run relationship between interest rates and the exchange rate during the Asian and other crises, but “the results of these studies are inconclusive and indeed quite mixed” – they do not find strong evidence for the traditional effect in which tightening monetary policy strengthens the exchange rate, but they do not find consistent evidence for the perverse effect either.³¹

Should short-term interest rates have been lower at the beginning of the programs? I believe rates were not too high in the Asian program countries, except perhaps briefly in

³¹ See Lane *et al* (2001), Box 5.2, for a summary of the evidence.

Korea, and that monetary policy should have been tightened earlier in Indonesia, which would have helped prevent the disorganization that followed on the collapse of the exchange rate in December 1997 and January 1998.

In both the Brazilian and Russian programs, interest rates were high pre-devaluation, and ultimately the defenses failed. In both cases though, there were earlier, successful, high-interest rate defenses of the currency. In Russia rates were extremely high during the presidential election in mid-1996, and they subsequently declined; in Brazil the currency was defended with high rates at the end of 1998. Interestingly, although the example of Sweden in 1992 is often cited as evidence against high interest rate defenses, the initial defense in September 1992, in which the overnight interest rate was raised to 500 percent, did succeed; the devaluation came with a second attack, in November 1992. Similarly, the high interest rates in Argentina in April 1995 helped maintain the peg. Thus high interest rate defenses of a currency can succeed for a while – but there has to be light at the end of the tunnel. In the Russian case, the light was the Yeltsin election victory; in Brazil at end-1998, interest rates came down as the global economic crisis dissipated.

A high-interest rate defense cannot succeed if the underlying macroeconomic situation does not appear sustainable – for high interest rates of course worsen the fiscal situation. Further, exceptionally high interest rates, if they last for any time, will produce a recession that will render the policy politically non-sustainable even if it is still fiscally sustainable. And exceptionally high interest rates, sustained for any length of time, can do great damage to the banking system, as was seen in Turkey following periods of four-digit overnight rates in both December 2000 and February 2001.

The monetary and exchange rate policy controversies during the Asian crisis have heightened awareness that responses to higher interest rates depend on their impact on market expectations, and that raising already high interest rates may be counterproductive.³² This awareness was evident in Brazil in the first quarter of 1999, when the new monetary policy team delayed raising interest rates until early March when the revised program was in place, and has also been evident in the conduct of monetary policy in Turkey in recent months.

Turning next to exchange rate management: countries that have depended on a pegged rate find it almost impossible to contemplate life without the peg, and thus seek intermediate exchange rate regimes after being forced to devalue. Mexico, Brazil, and Russia each attempted to move to a band following their devaluations; Indonesia widened its band in July 1997, following the Thai devaluation. The bands lasted only a few days following the forced devaluations, and the currencies were then in principle allowed to float.

The central banks then faced the problem of how to manage the exchange market. Following a shift from a pegged rate regime, foreign exchange markets become extremely thin, a result of both the lack of market infrastructure, for example the absence of futures markets, and of uncertainty over where the currency will settle. In most cases when currencies were

³² Even among the major currencies, there have been several occasions recently when the exchange rate has depreciated on the announcement of an interest rate increase; the explanation usually has been that the higher interest rate reduces growth prospects and thus capital inflows.

believed to be overvalued, estimates of overvaluation were around 10-15 percent. But in every one of the six cases, the nominal and real devaluations far exceeded that range. As the currency depreciates, and given the low volume of transactions, the central bank is tempted to intervene, believing that small supplies of foreign exchange will have a big effect on the market. This generally turns out to be an illusion, and one that may use up a considerable amount of the reserves. The central bank then typically scales back its intervention, but nonetheless intervenes from time to time, when the exchange rate moves a lot.

The purist position is for the central bank to stay out of the market entirely, to allow the exchange rate to find its own level. Such a position could make sense if there were a well-defined and credible monetary policy in place. But, following a principle I have generally found to be a good one – namely, do not ask a policymaker to do something you would not be willing to do in his or her place – I believe such advice is sometimes too difficult, especially during a period when monetary and exchange rate policies are in flux and the exchange rate may be fluctuating excessively.

In practice, the floats in all six cases were managed to some extent, least so in Mexico. During the crises, I often felt we did not have sufficiently good advice to offer on how to operate a floating rate regime, though we did arrange in several cases for experts from foreign central banks to assist central banks in the program countries in the day-to-day operation of the foreign exchange market, and in intervention. This is an area where it would be very useful to study and attempt to codify best practices and the circumstances in which they apply.

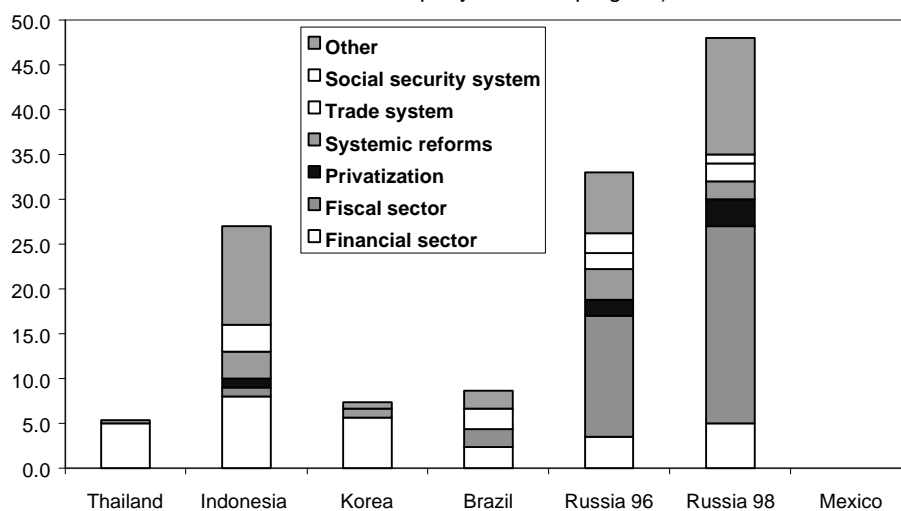
After the demise of a pegged exchange rate regime, the central bank needs a new basis for monetary policy. As previously noted, the IMF practice has long been to include quantitative targets for some nominal magnitudes, generally an upper bound on net domestic asset creation and a lower bound on net international reserves. Increasingly, and with good reason, countries with floating exchange rates have been putting in place inflation targeting regimes. This is a major innovation for emerging market countries, one that is working well. The shift to inflation targeting has required a change in the design of IMF programs, towards agreement on inflation targets and consultation on and reviews of monetary policy decisions, including a lower bound on net international reserves. This approach is being used successfully in the Brazilian IMF-supported program, and in other programs too.

Structural policies

Figure 11 shows the number of structural conditions in the six programs.³³ There was no structural conditionality in the Mexican program. The great bulk of structural conditionality in both the Thai and Korean programs was in the financial sector. There was somewhat more conditionality in the Brazilian program than in the Thai and Korean programs, but the two cases that stand out are Indonesia and Russia.

³³ The chart shows the total number of structural *prior actions*, *performance criteria*, and *structural benchmarks*, actions on which there is formal conditionality. In addition, programs may include *indicative targets*, actions that the government intends to carry out and that are the subject of monitoring and reporting to the Board when the program is reviewed.

Figure 11: Structural Conditionality in Capital Account Crises Countries (Structural measures per year of the program)



Source : IMF (MONA Database and Program Documents)

The Russian program of March 1996 was a three-year Extended Fund Facility. This program followed the 1995 standby that had successfully reduced inflation to the 20 percent range. It was intended to support an extensive program of structural reforms that our Russian counterparts hoped to implement in driving forward the faltering Russian reform process, intended to change the entire economic system. Many of these structural conditions remained in the program as it was augmented with more financing in July 1998.

The Indonesian program had more financial sector conditionality than the other Asian programs, and also included elements not present in the other programs, particularly those parts that show in Figure 11 as “other”. This included most of the features that have rarely appeared in IMF programs, including for instance ending the clove and plywood monopolies. Most of these non-traditional structural conditions were governance-related, that is to say corruption related, and were included in the belief that investor confidence in Indonesia would not be restored unless there was a change in the way of doing business in the country. Some of these conditions had been on the World Bank’s wish-list of reforms in Indonesia for some time.

Controversies over structural conditionality in the Asian programs centered on, first, whether any structural conditionality should have been included in the programs; second, the nature of the financial sector conditionality; third, the view that the programs neglected the social consequences of the macroeconomic and financial sector policies they contained; and fourth, the view that there was altogether too much conditionality.

The argument that there should not have been any structural conditionality derives in part from the view that the Asian crises were pure liquidity crises, which could have been resolved by providing enough financing. Probably there was some amount of financing that, if provided for example to Korea on IMF terms, would have resolved the crisis at lower output cost than it was. That would probably have taken about \$100 billion, much of it up front, and it was not a realistic possibility. Further, given the widespread view among both market participants and officials before the crisis broke out, that there were fundamental financial sector and corporate financing problems in the crisis countries, the program had to attempt to deal with these difficulties if it was to succeed.

A closely related but different view is that there should not have been any financial sector conditionality because dealing with the financial sector inevitably worsens the recession, since it requires recognizing losses, writing down assets, and perhaps closing financial institutions. This is the argument for regulatory forbearance. This approach has been taken in Japan, and has not succeeded, and given the view in the Asian crisis that financial sector weaknesses were at the heart of the problem, it would not have succeeded in the Asian crisis countries either. Further, as a matter of political economy, if the financial sector difficulties had not been dealt with up front, they would almost certainly have lingered even longer than they are lingering now, given the extreme reluctance of the governments in the crisis countries to deal with these issues – a reluctance that remains evident today.

It is true that there was no financial sector (indeed no structural) conditionality in the Mexican program, and that the government did nonetheless move to deal with financial sector weaknesses during the course of the program. It is doubtful that as much would have been achieved in reforming financial sectors in Asia without the program conditionality, in part because the scale of the problem was much larger in Asia, where financial systems are bigger relative to GDP. Further, several Mexican officials with whom I have spoken believe that financial sector reform was too slow in Mexico, and should have been included in the program with the IMF.

As the IMF has moved to narrow the scope of conditionality, it has adopted the view that structural conditions should be included only if they are essential to achieving the macroeconomic goals of the program.³⁴ The financial sector and corporate financial conditionality in the Asian program meets this condition.

Financial sector conditionality generally related to recapitalizing or closing bankrupt institutions, ensuring that equity holders took their losses, marking down assets and in some cases transferring those claims to other institutions, and deciding what to do with deposit claims. In Indonesia, 16 banks were closed in the initial program and deposits in those banks were guaranteed up to an amount that covered small-scale depositors. The 16 banks were what remained of an original list of 38, some of which were for one reason or another – including political reasons – excluded. But some of the 16 were also politically sensitive, and it should be emphasized that the Governor of the central bank and others involved in the program acted courageously in supporting their closing. The closings initially went smoothly. Then a bank in which the President's son was a major shareholder was in effect allowed to reopen. Gradually a panic developed, and deposits were shifted from banks regarded as unsafe – among them some of the 22 that had escaped in the first round – to safe banks, particularly public banks.

The question of the extent of the initial guarantee was debated within the IMF, with the desire to prevent panic being balanced against the moral hazard and fiscal costs that a blanket guarantee would create. In retrospect I believe that moral hazard should have been given less weight and a blanket guarantee accepted. It would also have been better to close the dubious banks at the start of the program, rather than leave them to be dealt with later. In the end, of course, a blanket guarantee of bank deposits was provided in Indonesia as well as in the other Asian crisis countries – and I believe that should generally be done up front in similar circumstances.

Third, each program included social safety net measures. In Indonesia, the price of rice and cooking oil continued to be subsidized. In Thailand there was provision for spending on public works that would employ the poor. In Korea there was provision to develop an unemployment insurance scheme; in addition, Managing Director Camdessus helped broker the tripartite agreement among labor, business, and the government to cooperate in dealing with the crisis. The Fund was criticized from both sides on these issues: those who accused it of neglecting social consequences did not notice that these measures were included; others criticized the Fund for trying to usurp the World Bank by including social safety net measures

³⁴ See IMF Public Information Notice (PIN) No. 01/28, March 28, 2001 (<http://www.imf.org/external/np/sec/pn/2001/pn0128.htm>)

in the initial programs. In fact, the measures were included, but the intention was that they would be implemented with the assistance of the World Bank and/or the Asian Development Bank.

Fourth, was there too much structural conditionality? The arguments for limiting conditionality are that doing so encourages program ownership; that the more conditions there are, the less focused the program; that no country can carry out a program with as much conditionality as there was in Indonesia and Russia; and that the Fund lacks the expertise to deal with structural conditionality and should stick to its last.

Taking up some of these arguments briefly: the link between the extent of conditionality and program ownership is not straightforward, for sometimes particular conditions are included at the request of governments seeking to commit themselves to undertake those actions. A further complication is that sometimes a particular group within the government – generally they are called reformers – are seeking to use the IMF program as a way of committing their colleagues to the policies. As to the Fund lacking the expertise to deal with structural conditionality, that may sometimes be true; it is also true though that conditionality in Fund programs can relate to actions undertaken under the auspices of the World Bank or some other institution.

One other point: an increase in the number of conditions is sometimes a result of attempting to spell out precisely what measures are needed to achieve a specific goal. For instance, a condition that the banking system be strengthened – which may well be necessary for the success of the program – is too general; but then spelling out the necessary measures leads to an increase in the number of conditions, the more so, the more precisely the conditions are specified. Similarly, a condition such as “reducing corruption” cannot be seriously monitored, and specifying measures to achieve that end will lead to an increase in the number of conditions.

The conditionality in the Russian EFF program was, I believe, broadly appropriate. However I do believe that the Indonesian program included too much conditionality that the government was reluctant to implement, and that accordingly some of the conditions in that program could with benefit have been omitted. Note, however, that despite all the noise about excessive conditionality, conditionality in the other crisis countries does not seem to have been excessive – the impression that it was almost certainly is a result of the Letter of Intent having been used as the vehicle for the government to spell out details of its economic program, many of which were not the subject of IMF conditionality.

The IMF is now appropriately seeking to keep conditionality focused. However, the Fund faces a serious problem in dealing with governance problems in program countries: the IMF should not, and cannot in any case afford, to lend money to governments that will waste it or use it corruptly. Thus many programs will include governance-related conditions that will inevitably seem intrusive and quite possibly excessive in number.

Private sector involvement and capital controls

There were elements of private sector involvement – which is to say, efforts to persuade private investors to maintain their exposure to the crisis country – in five of the six programs, with Mexico the exception.

In Thailand the Japanese banks – Thailand's major external creditors – were asked in August 1997 to maintain their exposure to the country. This arrangement was not monitored on a daily basis, as was done in some subsequent cases. The exposure of the Japanese banks declined gradually in the months that followed, from \$37.7 billion in June 1997, to \$26.1 billion a year later, and \$18.3 billion in June 1999.³⁵

The Korean program started on December 4. The capital outflow nonetheless continued almost unabated.³⁶ Although the possibility of seeking to coordinate the commercial bank creditors of Korea was discussed inside the IMF around the time the program went into effect, no attempt in this direction was made until Christmas Eve. At that point the G-7 and the IMF decided to approach the commercial banks and inform them that Korea faced default unless the banks agreed to roll over interbank lines of credit. The banks agreed to cooperate, with William Rhodes of Citibank playing a coordinating role on the private sector side – as he had done in the 1980s debt crisis. By late January an agreement had been reached between Korea and the commercial banks to restructure and roll over the interbank lines. The new obligations were one to three year bonds, with a Korean government guarantee, at an interest rate of 250 to 275 basis points above LIBOR, a rate that was below market spreads at the time of the agreement, and above spreads a few months later. During the period in which the agreement was being negotiated, a reporting system was put in place with the assistance of the IMF that enabled the Bank of Korea to monitor interbank lines daily.

The Korean panic stopped soon after the banks were approached. Why were they not approached sooner? The fear was that approaching Korea's creditors could lead to withdrawals of funds from other emerging market countries, and thus severely worsen contagion. In addition, some G7 regulators argued that there was a conflict between their role as bank supervisors and any attempt to put pressure on banks to hold lines they would rather have withdrawn. The counter to this argument was that there was a collective action problem that could only be solved by the public sector, and that the banks, acting cooperatively, would each do better than they would acting atomistically. While the logic is impeccable, the authorities have to be virtually certain in such cases that the collective action will succeed.

The Korean situation was unusual in that commercial banks were the main short-term creditors. This made it easier to stop the capital outflows with a 1980s style agreement with the banks.

³⁵ Data are from the BIS.

³⁶ During this period, the Bank of Korea was lending dollars to the commercial banks at interest rates of about 200 basis points above LIBOR. The banks' external lines of credit were being pulled, and it was little wonder that they were willing to borrow dollars from the central bank at low interest rates rather than try to borrow dollars in the market. Under pressure, the lending rate was raised to LIBOR plus 800 basis points, and then to LIBOR plus 1200, and the outflow ceased.

In Indonesia, capital outflows were driven not only by external creditors, but also in large part by domestic residents seeking safety abroad.³⁷ When the program was renegotiated in mid-January 1998, it was clear that some scheme needed to be found to deal with the corporate debt problem. Discussions began in late January with bank creditors on rolling over interbank lines, and later with Indonesian private sector participants and government officials on how to deal with the corporate debt problem. In June 1998 an agreement was reached in Frankfurt on restructuring interbank debt and rolling over of interbank lines, as well as on a voluntary scheme for restructuring corporate debt.

In Russia, an attempt was made to restructure the debt in July 1998. This was voluntary and market-based, and did not succeed. On August 17 1998, at the same time as they devalued, the authorities announced a suspension of payments on GKO's maturing before the end of 1998, and their conversion to longer-term paper. They also imposed capital controls in the form of a 90-day standstill on servicing external debt, including payments by Russian banks to nonresidents on forward contracts that had been written to hedge exposure to Russian government debt.

When the program with Brazil was reformulated in the first quarter of 1999, the Brazilian authorities approached the commercial banks to roll over interbank lines on a voluntary basis. A monitoring system was already in place. The Finance Minister and central bank Governor between them visited the leading financial centers and secured agreements from the banks, so that this form of voluntary private sector involvement was in place by the time the Executive Board approved the revised program. The regulatory authorities in the creditor countries generally indicated that they approved of the approach being taken by the Brazilians, but applied very little moral suasion beyond that to their banks. The Brazilian authorities themselves were unenthusiastic about the approach, for fear that it would set off the run they were trying to prevent. In the event, the voluntary agreement and the program worked – though the direction of causation between those two results is complicated.

In none of these cases, except Russia, were losses imposed on the holders of interbank claims and dollar-denominated short-term government debt.³⁸ Holders of longer-term bonds, equity, and other claims on corporations, generally did suffer losses during the crisis. Further, only in Russia and Malaysia – in the latter case a year after the start of the crisis – were serious capital controls imposed. Some capital controls were imposed in other cases, including Thailand, in an effort to prevent the operation of an offshore market in the local currency, and thus create some leeway for the operation of domestic monetary policy.

Program size

The financing packages announced for Mexico, Indonesia, Korea, and Brazil were extremely large, and those for Thailand and Russia were also large. Relative to quota, IMF

³⁷ Domestic residents are often major sources of hot capital flows in both directions.

³⁸ However in the Korean case, the interest rate agreed on the restructured debt was below the market rate at the time.

financing for Korea was the largest ever, while financing for Mexico and Brazil was also extremely large relative to quota (Table 1).

In the case of current account crises, where financing is needed essentially to finance imports and maturing debt, but not to deal with capital outflows, it is relatively simple to calculate a country's financing gap – though even these calculations are bound to be inaccurate. In the case of a capital account crisis, a financing gap can be calculated by starting from the current account, and adding an estimate of capital flows. The estimate of net capital flows is calculated component by component of the capital account, assuming rollover rates for the different components of the external debt. However, the calculation of the needed size of a financing package in the case of a capital account crisis is much harder, for confidence in the program is key to its success, and rollover rates of different types of debt will depend on the size of the package as well as an assessment of the strength of the economic policies put in place to deal with the crisis.

In thinking about this issue within the Fund, we sometimes used a diagram like Figure 12, where, with the program having been agreed, the logistic curve (A) shows the probability of the program succeeding as a function of the size of the financing package. The probability of success reaches close to one when there is enough financing to cover all potential outflows over a reasonable horizon, say one to three years, and provided the problem the country faces is one of liquidity, not solvency (where that distinction remains to be discussed). Underlying curve A is a view that desired private capital outflows will tend to decline as the official financing package increases (B).

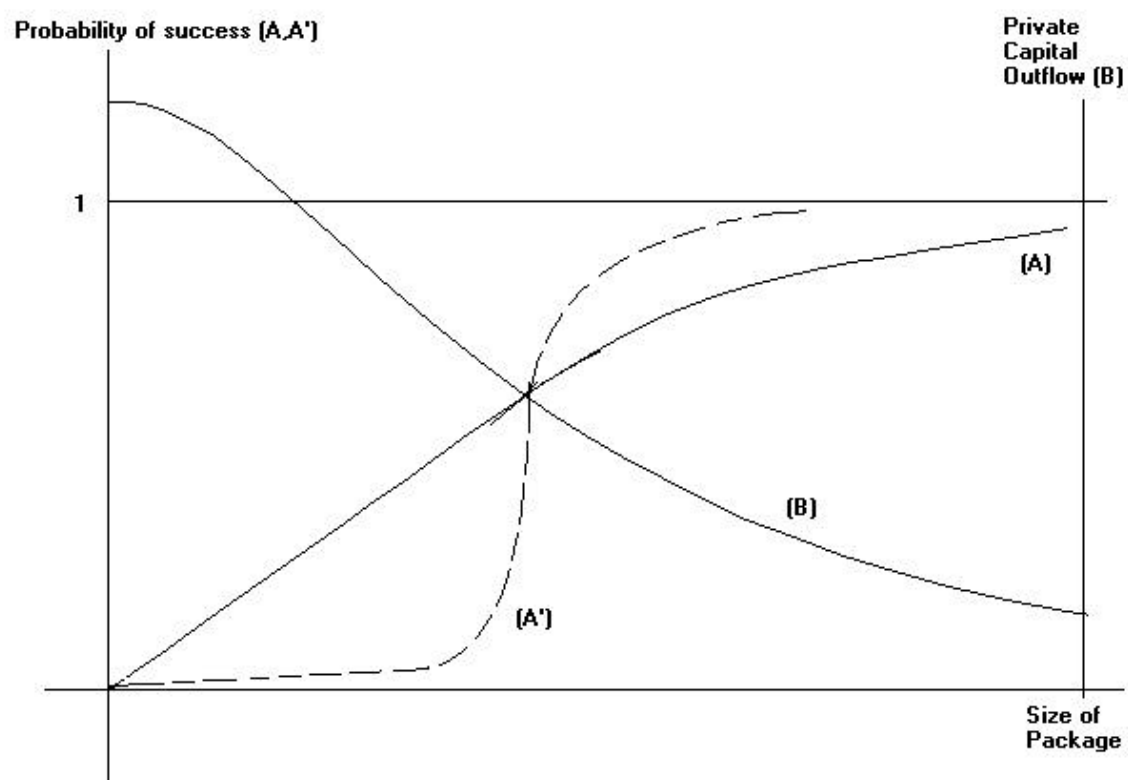
In practice we thought of the probability curve as being very steep, more like A' than A – that if the financing was too small, the program was almost certain to fail, but that once it reached a critical size, it was very likely to succeed.³⁹ The critical size was approximately equal to the calculated total financing gap.

Why not provide as much financing as possible in each case? Moral hazard is one obvious reason – the solution to one crisis could plant the seeds of others. Another is that the IMF's resources are finite – and further, that the likelihood of the IMF's being repaid declines with the size of its financing.

Two types of moral hazard can be envisaged: on the part of policymakers in developing countries who take risks they would not otherwise have taken, secure in the knowledge that the IMF will bail them out; and second, on the part of investors, who take

³⁹ The two curves in Figure 12 assume that the views of capital market participants differ and are not known to the authorities or the IMF; if they were uniform and known, then the probability curve would be vertical, or -- in light of uncertainties about current account financing needs – at least very steep.

FIGURE 12 : PROBABILITY OF SUCCESS – SIZE OF THE PACKAGE



risks by investing in a country because the IMF safety net is there. I do not believe the first type of moral hazard is a serious concern – I have yet to meet a policymaker who having failed in his risky strategy, welcomes the need to call on the IMF. And indeed, in the six crises discussed in these lectures, 10 out of 12 of the finance ministers and central bank governors had lost their jobs within a few weeks of the outbreak of the crisis.

With regard to the second type of moral hazard, it was sometimes suggested that the Mexican crisis begat the Asian crisis. The evidence is against this hypothesis. The one case where reliance on Fund financing seems to have played a large role was in Russia – but there those who bet on the moral hazard play were in the end disappointed. Nor do the facts give much support to the view that Fund involvement safeguards investors against loss: in every crisis all investors except those who lent very short term have taken losses.

Nonetheless, the potential moral hazard implied by large Fund packages needs to be borne in mind when deciding on the scale of Fund lending. This is an issue to which I will return in the last lecture.

An attempt was made in each case to supplement IMF financing with other funds, bilateral and multilateral. The sources of the other funding varied in amount and nature. In the case of Mexico, the U.S. provided financing from the Exchange Stabilization Fund, and the total Mexican package was as advertized at the time and specified in Table 1, equal to \$48.8 billion. This amount was calculated as being more than enough to cover the refinancing of the famous tesobonos. However the uproar created by the use of the ESF in the Mexican case affected the ability of the United States to contribute bilaterally to future financing packages.

In the Thai case, the IMF provided only about a quarter of the total financing. The rest came from other Asian countries, with Japan in the lead, and the United States absent – an absence that was noticed in Thailand. In Thailand, the bilateral financing was provided in parallel with that of the IMF, and was again real.

In both Indonesia and Korea, the bilateral funding was provided as a second line of defense (SLOD), which would be available if the multilateral financing appeared inadequate, provided the programs were on track. At the time the banks were approached in the Korean case, use of the SLOD to reinforce the program if needed, was held out as an explicit incentive to them to cooperate. In the event, the SLOD was not needed in Korea. In Indonesia, although the program got into severe difficulties, especially in December 1997 to March 1998, SLOD financing was not provided, despite requests from some Indonesian policymakers. The program was clearly not on track, so the failure to disburse the SLOD was not inconsistent with the agreement. But it left the Indonesians, market participants, and some in the IMF wondering under what circumstances any SLOD would be available.

By the time of the Brazilian program, the IMF staff and management had concluded that SLOD financing should not be used again, a conclusion that the U.S. and other industrialized country treasuries were willing to accept. Bilateral financing in that case was provided in parallel to IMF funding, and was coordinated through the BIS.

In Russia, in July 1998, the announced package included only \$1.5 billion of bilateral financing (from Japan).

Why use bilateral financing at all? Up to the time of the revised Brazil program in March 1999, the IMF simply did not have enough money to cover likely financing needs. That situation changed after the quota increase went into effect. Despite the Fund's safe liquidity situation at present, it is still sometimes argued that bilateral as opposed to IFI financing of the same amount gains the country extra market credibility. There are two arguments to support this view: first, it indicates that the success of the program is of direct concern to the major industrialized countries; and second, therefore, that those countries will be more closely involved in the monitoring and enforcement of the program, which will therefore be more likely to be implemented. I believe there is something to these arguments – but there shouldn't be, for the money the Fund lends belongs to its shareholders. If there is a case for bilateral, in addition to IFI, financing, it would be that the financing needs of a program are too large for the Fund to take them entirely on its balance sheet. But such cases should be rare, for the IMF was set up to deal with financial crises, and it should generally be in a position to take that responsibility.

All these packages were tranching, that is to say, intended to be paid out over time, dependent on meeting conditionality. Although these programs were more front-loaded than had been typical of previous IMF programs, in no case was the first tranche more than 50 percent of the total.⁴⁰ Further, a large part of the financing for Indonesia and Korea did not materialize, and questions eventually began to be raised about whether it was actually available.

Were these programs too large, too small, or about right? As we will discuss later, that question has to be discussed relative to the extent of PSI. But the view has often been expressed that the Mexican program was too large and led to moral hazard and the Asian crises. That contention has not been supported by subsequent research. However there is some evidence that the Russian default and the Paris Club-imposed Pakistani restructuring in 1999 led to increases in spreads.⁴¹ While this may establish that spreads are affected by the availability of official financing, it does not establish whether programs were too large, since the creation of moral hazard has to be weighed against the benefits of lending to a country in a potential crisis.

Another view would be that at least four of the financing packages were too small, because they failed to prevent massive recessions. But of course, the size of a package is not the only factor affecting its success.

Lane *et al* (2001, p. 37) measure the size of programs against potential capital outflows, calculated as the sum over the previous three years of all private net capital inflows excluding foreign direct investment and errors and omissions. By this criterion, the Thai program was less than half the size of the others, and may well have been too small. The “for want of a nail”

⁴⁰ Box 3.3 in Lane *et al* (2001), pp 37-38 presents data on the size and phasing of the programs.

⁴¹ Lane *et al* (2001), Box 3.4, p. 41, review the literature.

view could then be taken that the Thai package was too small to stop the capital outflow, that this sapped confidence in the willingness and/or ability of the public sector to deal with such crises, and contributed to the subsequent crises.

Whatever the difficulties of determining the right size of a program, two things are clear. First, the use of the SLOD was not helpful in Indonesia and Korea. Second, the IMF paid a price for trumpeting the large size of the programs. The private sector understood exactly that the financing was tranching and conditional, and also gradually understood that some of the bilateral financing was not readily available. But the headline writers and IMF critics continued to use the very large headline figures to emphasize the new role the IMF was playing in these crises.

It comes as a considerable surprise, not least to me, to discover that the amount the IMF lent in the seven years from 1994 to 2000, SDR 80 billion, was slightly smaller, relative to the global economy, than the SDR 50 billion it lent in the seven years starting 1981, i.e. during the Latin debt crisis.⁴² The impression that the Fund was playing a much larger role in the 1990s than a decade earlier must owe much to the drama of the individual crises and the attendant publicity, to the fact that crises visited countries that had until recently been regarded as miracles, and to the publicity given to the size of financing packages.

IV. Concluding Comments

Let me conclude with a few comments, first on some of the questions that are most often asked about the crises and IMF-supported programs, and then with some more personal reflections.

The length of the crisis: We kept being asked during the Asian crisis why it was taking so long to stabilize the situation, compared with Mexico. The first answer was that memory is faulty: confidence was not immediately restored in Mexico. More fundamentally, these were not long recessions. A typical recession in the United States lasts about a year, and in each of these crises, except in Indonesia, growth was restored within a year. The speed with which countries got back to the financial markets was also impressive relative to previous international financial crises, particularly the 1980s debt crisis. Of course, we were lucky that these crises took place during a period in which the United States economy was so strong, providing a ready market for Mexican and Asian products. By the same token, the weakness of the Japanese economy and financial system contributed to the Asian crisis.

⁴² Some of the Fund's big borrowers in the 1990s, Russia and Ukraine, were not members in the 1980s.

The depth of the crises: Why were the recessions in Mexico and Asia so deep? During the Asian crisis, critics pointed to underfinancing of the programs and excessively detailed conditionality, which undermined confidence. But the Mexican program was not underfinanced, nor did it have detailed conditionality – and still Mexico suffered a very deep recession. While underfinancing was an issue in the Thai case, the real reason for the depth of those four crises was the virulence of capital flow reversals, in turn a result of a profound loss of confidence in the policy framework of the economy. The loss of the exchange rate anchor was one element; the realization that Asian growth rates of 7-10 percent might not be permanent was another; and a third was the loss of confidence in policymakers and by the policymakers themselves. And this was not a loss of confidence of foreign investors alone. It is not an accident that the Asian programs began to turn only when there was a change in government: in Thailand in November 1997, in Korea following the presidential election in December 1997, and in Indonesia following the resignation of President Suharto in May 1998.

Policy mistakes leading up to the Thai and Korean crises should not be underestimated. Both countries essentially used up all their foreign exchange reserves in defending the currency, and both had major weaknesses in the financial system. This made recovery much more difficult. The Indonesian crisis was different: it was the crisis of the end of regime, with great uncertainty about what would come next, in a situation of ethnic tension.

Did the IMF make things worse? No. Some mistakes were made, particularly in fiscal policy at the very early stages of the Asian programs. But the basic design of programs was correct, and it was essential to make a start on dealing with problems in the financial system and in corporate financing.

Malaysia did not perform better than the other Asian economies in the first year of the crisis, when account is taken of its stronger starting point, with little external debt. The Philippines, another member of ASEAN, did perform better, and that is partly because it was in an IMF-supported program at the time the crisis struck. Among these six countries, Brazil and Russia, also in IMF programs when they devalued, did best post-crisis. In the Brazilian case, not only was the financial sector stronger than in the other five countries, it also turned to the IMF early. The defense of the currency, during which the private sector was able to hedge against an expected devaluation, also helped ensure that the devaluation did not lead to a collapse. In Russia, the rapid recovery owed much to the price of oil, but the strengthening of the fiscal position in 1998 and 1999 was also a result of the measures put in place in the July 1998 program.

The Catch-22 question: What would you do differently if you had it to do all over again?⁴³

- Before the crisis, we should have pushed even harder for exchange rate flexibility, and for more action by countries on strengthening their financial sector – for these weaknesses were known and had been reported on. But I am not confident we would

⁴³ To repeat, in this section, as elsewhere in these lectures, I speak only for myself and not necessarily for the IMF.

have succeeded, for such advice was strongly resisted when it was given – and policymakers doing extremely well are not inclined to change the status quo.

- I have already spoken about fiscal policy in the Asian crisis; other macroeconomic policy recommendations would not have changed.
- On structural conditionality, I would have emphasized even more financial sector and corporate debt restructuring. But I would have applied the current macroeconomic relevance test more strictly, particularly in the Indonesian program. Further, a complete deposit guarantee is almost unavoidable in a serious crisis in which doubts arise about the banking system.
- On program financing, once the necessary size of a program has been calculated, it is essential that the financing is real, and available when needed; this means no second lines of defense or other financing the conditions of whose delivery is unclear, and careful attention to the phasing of financing. Earlier efforts to ensure private sector involvement would have been useful in the Asian crisis countries.
- It would be desirable if countries took more ownership of their programs. But I do not hold out much hope of that. The rule is: when a program is going badly, it is called an IMF program; when it is going well, it is owned by the country.
- And no doubt we could have done a better job explaining programs to the public.

Personal reflections on the crises: Finally a few more personal, less cosmic, reflections:

- It is hard to describe the state of shock of policymakers beset by a crisis that has destroyed their entire policy framework. They start by blaming everything and everyone but themselves, they resent the need to call on outside help, and find it very difficult to think realistically. A bit later the serious policymakers get down to work.
- As a result of the confusion of policymakers and reluctance to accept what has happened, it is often difficult to get realistic growth assumptions or forecasts into a program. This greatly complicates the task of the IMF, because on this as on all other issues the formulation of a program requires as much cooperation as possible, not conflict on every issue.
- Restoring confidence is a difficult and time-consuming process, not least because at the start of a crisis, the country regards itself as the victim, and everyone else tends to blame it for what has happened. I have several times seen the representative of a country in crisis explaining to a skeptical Executive Board of the IMF that its policies had been close to perfect, and that it was asking for a large loan only as a result of a series of unfortunate accidents.
- This creates a real problem for the management and staff of the IMF. We are trying to help the country recover from the crisis, and thus cannot often criticize it in public. It is

easy in those circumstances to become an apologist, a temptation that should be avoided, difficult as that is.

- It is difficult to fight the markets. I have often thought the markets were wrong in their appraisals of countries; indeed I think that now. I have often thought as a country struggled with skeptical markets, that multiple equilibria exist, and that the country would not be in a crisis if the markets were not skeptical. But no amount of railing at this issue will change the fact that the markets are there, and that their verdict has to be dealt with.
- The benefits of having an IMF: It is far more acceptable for a country to have to deal with an organization of which it is a member, and in which it has rights and privileges, and which represents the entire international community, than with an individual country.
- Finally, in each crisis, I remembered the words of Michel Camdessus when he met with us early in the morning after the United States' \$40 billion support package for Mexico failed to receive Congressional support: "Gentlemen, this is a crisis, and in a crisis, you keep calm."

Appendix Table 1: Macroeconomic Indicators in Capital Account Crisis Programs

	t-2	t-1	t	t+1	t+2	t+3
1. Brazil (1998)	1996	1997	1998	1999	2000	2001
Real GDP (growth, in percent per year)	2.7	3.3	0.2	0.8	4.2	..
Consumer Price Index (growth, in percent per year)	15.8	6.9	3.2	4.9	7.0	..
Real exchange rate (growth, in percent per year)	5.9	4.2	-2.3	-33.6	9.1	..
Private Savings (in percent of GDP)	21.4	21.0	21.8	24.1	19.5	..
Public Savings (in percent of GDP)	-3.4	-3.4	-4.9	-8.3	-3.1	..
Investment (in percent of GDP)	20.9	21.5	21.2	20.4	20.5	..
Current Account (in percent of GDP)	-3.0	-3.8	-4.3	-4.7	-4.2	..
Capital and financial account (in percent of GDP)	3.2	4.2	4.9	4.6	4.1	..
Private capital flows, net (in percent of GDP)	4.5	3.1	2.4	2.2	4.8	..
General government balance (in percent of GDP)	-5.9	-6.1	-7.9	-10.0	-4.6	..
External debt (in percent of GDP)	23.2	24.8	30.7	45.6	39.7	..
2. Indonesia (1997)	1995	1996	1997	1998	1999	2000
Real GDP (growth, in percent per year)	8.2	8.0	4.5	-13.1	0.8	4.8
Consumer Price Index (growth, in percent per year)	9.4	7.9	6.2	58.0	20.7	3.8
Real exchange rate (growth, in percent per year)	-3.4	5.1	-5.6	-51.6	45.2	-2.0
Private Savings (in percent of GDP)	22.0	21.9	19.4	10.8	11.0	14.7
Public Savings (in percent of GDP)	7.0	6.8	7.3	6.4	6.4	7.4
Investment (in percent of GDP)	31.9	32.1	31.8	16.8	12.2	17.9
Current Account (in percent of GDP)	-3.3	-3.2	-1.7	4.2	4.1	4.2
Capital and financial account (in percent of GDP)	3.3	5.1	1.7	-4.2	-4.1	-4.2
Private capital flows, net (in percent of GDP)	6.2	6.3	7.1	-3.0	-3.6	-0.9
General government balance (in percent of GDP)	0.8	1.2	-1.1	-2.3	-1.5	-3.1
External debt (in percent of GDP)	56.3	53.4	63.3	148.4	112.1	96.5
3. Korea (1997)	1995	1996	1997	1998	1999	2000
Real GDP (growth, in percent per year)	8.9	6.8	5.0	-6.7	10.9	8.8
Consumer Price Index (growth, in percent per year)	4.5	4.9	4.4	7.5	0.8	2.2
Real exchange rate (growth, in percent per year)	1.2	3.5	-6.0	-25.6	13.5	8.1
Private Savings (in percent of GDP)	25.8	23.4	22.4	23.0	22.3	20.9

Public Savings (in percent of GDP)	9.7	10.2	10.1	11.0	10.4	10.2
Investment (in percent of GDP)	37.2	37.9	34.2	21.2	26.7	28.7
Current Account (in percent of GDP)	-1.7	-4.4	-1.7	12.7	6.0	2.4
Capital and financial account (in percent of GDP)	2.0	4.2	2.7	-10.7	-5.2	-2.7
Private capital flows, net (in percent of GDP)	0.7	4.1	-4.6	-2.7	3.3	1.8
General government balance (in percent of GDP)	1.3	1.0	-0.9	-3.8	-2.7	2.5
External debt (in percent of GDP)	17.5	22.2	28.1	43.5	.	.

4. Mexico (1994)

	1992	1993	1994	1995	1996	1997
Real GDP (growth, in percent per year)	3.6	2.0	4.4	-6.2	5.2	6.8
Consumer Price Index (growth, in percent per year)	15.5	9.8	7.0	35.0	34.4	20.6
Real exchange rate (growth, in percent per year)	8.2	7.6	-3.6	-33.1	13.0	17.8
Private Savings (in percent of GDP)	10.0	10.1	10.3	14.5	18.5	21.5
Public Savings (in percent of GDP)	6.6	5.1	4.4	4.8	3.9	2.5
Investment (in percent of GDP)	23.3	21.0	21.7	19.8	23.1	25.9
Current Account (in percent of GDP)	-6.7	-5.8	-7.0	-0.6	-0.7	-1.9
Capital and financial account (in percent of GDP)	6.7	6.5	8.1	1.7	0.4	1.4
Private capital flows, net (in percent of GDP)	6.8	8.6	4.6	1.4	4.0	3.9
General government balance (in percent of GDP)	1.5	0.7	-0.2	-0.2	0.3	-1.0
External debt (in percent of GDP)	31.3	32.7	33.8	59.0	49.6	38.2

5. Thailand (1997)

	1995	1996	1997	1998	1999	2000
Real GDP (growth, in percent per year)	9.3	5.9	-1.4	-10.8	4.2	4.3
Consumer Price Index (growth, in percent per year)	5.8	5.9	5.6	8.1	0.3	1.5
Real exchange rate (growth, in percent per year)	-1.8	6.8	-7.0	-15.5	5.1	-3.1
Private Savings (in percent of GDP)	21.0	20.6	20.3	26.1	24.1	23.7
Public Savings (in percent of GDP)	12.8	13.0	10.9	7.0	6.0	6.2
Investment (in percent of GDP)	41.8	41.6	33.3	20.3	19.9	22.4
Current Account (in percent of GDP)	-7.8	-7.9	-2.1	12.8	10.2	7.6
Capital and financial account (in percent of GDP)	8.6	8.8	7.8	-13.6	-14.5	-8.2
Private capital flows, net (in percent of GDP)	11.8	9.2	-5.3	-16.3	-13.5	-10.7
General government balance (in percent of GDP)	3.0	2.5	-0.9	-2.6	-2.9	-2.3
External debt (in percent of GDP)	59.9	59.6	72.3	93.9	78.4	65.8

6. Russia (1998)

	1996	1997	1998	1999	2000	2001
Real GDP (growth, in percent per year)	-3.4	0.9	-4.9	3.2	7.5	..

Consumer Price Index (growth, in percent per year)	47.6	14.7	27.7	85.7	20.8	..
Real exchange rate (growth, in percent per year)	22.1	5.6	-11.4	-29.3	12.1	..
Private Savings (in percent of GDP)	33.7	28.9	18.5	28.3	34.8	..
Public Savings (in percent of GDP)	-8.2	-5.9	-3.4	-0.9	1.6	..
Investment (in percent of GDP)	24.6	23.1	15.7	15.1	18.0	..
Current Account (in percent of GDP)	0.9	-0.1	-0.6	12.4	18.4	..
Capital and financial account (in percent of GDP)	1.1	1.4	3.8	-8.3	-13.4	..
Private capital flows, net (in percent of GDP)	0.4	-5.3	-4.0	-5.8	-6.9	..
Central government balance (in percent of GDP)	-6.5	-6.7	-4.9	-1.4	2.6	..
General government balance (in percent of GDP)	-8.9	-7.5	-7.0	-0.2	4.5	..
Primary balance (in percent of GDP)	-3.0	-2.8	-3.0	3.4	7.0	..
External debt (in percent of GDP)	32.5	30.9	54.8	79.9	61.5	..

Appendix Table 2 : Details of the IMF Program for Mexico

	Original Package(Feb 1, 1995)	First Review (March 29, 1995) & 2 nd Review (June 30, 1995)
Fiscal Policy	Tight fiscal policy; Improvement of overall fiscal balance by about 1-1.5 % of GDP; decline in current account deficit to about 4% of GDP in 1995	Further consolidation of public finances; fiscal effort equivalent to about 1.7% of the GDP (e.g through increase , in VAT rate and restricting claims for VAT refunds only to registered taxpayers)
Monetary Policy	Tight; quantitative ceilings e.g. on change in net domestic assets (NDA); these were however not respected, there was significant overrun of Central Bank NDA at end 1995	Further tightening , monetary control would continue to be exercised through open market operations with interest rates being allowed to adjust through market conditions.
Exchange Rate	Floating exchange rate; peso was allowed to float on December 22, 1994	Maintain floating exchange rate regime
Financial Sector	Measures by government allowing households to roll over mortgages, support for banks to borrow to strengthen capital and assistance in rollover of foreign debts of banks; financial sector restructuring however not central to program	Government commitment to protect all depositors, provision of peso liquidity by Bank of Mexico to the Banking system, temporary bank recapitalization program, program of dollar loans to help banks meet their external short-term obligations administered by Bank of Mexico, and strengthening of banking supervision and relaxation of limits on foreign participation in Mexican Banks.
Corporate Debt	The famous tesobono problem; during second quarter of 1995, maturing tesobonos estimated at US\$4.1 bn	Resources to be made available in the Exchange Stabilization Fund to amortize the maturing tesobonos.
Social Safety Net	Transfers conditional on human capital investment. Examples include PROGRESA which is conditional on children's school attendance and regular health care visits; PET, a program of small scale public works providing upto 3-months employment at 90% of minimum wage.	Improve the targeting of social expenditures, introduce a food stamp program, children's grants and subsidies for tortillas and milk
Other structural changes	No structural conditionality in the Mexican program crisis was viewed as mostly macroeconomic with overvalued exchange rate and unsustainable current account deficit.	Introduction of trade restrictions e.g increase in import tariffs on textiles and footwear.

Appendix Table 3: Details of the Thai IMF Program (1997)

	Original Package (August 20, 1997)	First Review (December 11, 1997) & Second Review (March 4, 1998)
Fiscal Policy	Tight; fiscal adjustment equivalent to around 3% of GDP	Fiscal Policy more accommodative , fiscal target loosened from a surplus of 1% in the original program to a deficit of around 2% of GDP in the 2 nd review.
Monetary Policy	Indicative targets for interest rates	Indicative targets for interest rates raised in the first review; monetary policy to be focused on exchange rate in 2 nd review
Exchange Rate	Floating exchange rate regime	Floating exchange rate regime.
Financial Sector	Closure of insolvent financial institutions, issuing a blanket deposit guarantee to calm markets, and eventual restructuring and rehabilitating of Thai financial institutions with the establishment of the Financial Sector Restructuring Agency. Several structural performance criteria including one preventing deposit rate competition by insolvent banks; provision for taking over of non-viable institutions; and one on closing insolvent, and fully recapitalizing undercapitalized institutions.	By the second review, it was clear that the original ambitious timetable was not achievable and a specific timetable for restructuring of the financial sector announced. Financial system having difficulty raising capital and legal system incapable of speedy treatment of bankrupt cases. Two new performance criteria: on introduction of new loan classification and provisioning guidelines, and on signing of Memorandum of Understandings with all financial institutions regarding their capitalization plans.
Corporate Debt	Establishing of frameworks for debt workouts	Remove obstacles to corporate debt restructuring and to support the market-based voluntary process already under way.
Social Safety Net	Decentralized social safety net; cash transfers to families, subsidized health cares and public health programs. ⁴⁴	Strengthening the social safety net.
Other structural changes	Privatization, foreign ownership (mainly focused on by the end of 1998)	Program broadened to include strengthening of the legal and judicial system.

⁴⁴ Most of these programs were expanded in 1998-1999 after the second quarterly review in March 1998

Appendix Table 4 : Details of the Indonesian IMF Program (1997)

	Original Package (November 5, 1997)	First Review (May 4, 1998)& Second Review (July 15, 1998)
Fiscal Policy	Tight; targeting of around 1% of fiscal surplus to be achieved through an increase in taxes on tobacco and alcohol, removal of exemption on VAT, removal of subsidy on energy prices and through spending cuts.	More accommodative; target fiscal deficit of around 3% of GDP
Monetary Policy	Tight; ceiling on base money instead of Central Bank NDA.	Tight; Ceilings on Net Domestic Assets introduced as performance criteria.
Exchange Rate	Flexible	Flexible
Financial Sector	16 banks were closed and 34 others said to be in trouble; Broad brush approach mainly as a precaution against contagion, the program sought to reform the financial sector and deregulate the economy more generally; program measures included transparent bank rehabilitation through the budget, revision of the prudential regulations, and elimination of restrictions on bank lending	Focus sharpened, a 3-tier approach to banking crisis was adopted: blanket deposit insurance for two years; establishment of the Indonesian Bank Restructuring Agency; and the proposal for a framework of corporate restructuring
Corporate Debt	Restructuring of corporate debt	Creation of a framework for voluntary restructuring of corporate debt involving a government exchange guarantee scheme (INDRA scheme)
Social Safety Net	Targeted subsidy on lower quality rice and combinations of public work programs and cash assistance. Microcredit programs and stay-in-school campaign providing block grants to school lunches to eligible children.	Strengthening of social safety net; introduce community based work programs to sustain purchasing power of poor in both rural and urban areas, increase subsidies for food and essential items.
Other structural changes	Eliminating import and marketing monopolies and expansion of activities open to foreign participation.	Establish monitoring system for structural reforms, prepare regulations for establishing procedures for mergers, acquisitions and exit, submit to Parliament draft law on competition policy etc.

Appendix table 5 : Details of the Korean IMF Program (December 1997)

	Original Package (December 4, 1997)	First Review (Feb 17, 1998)& Second Review (May 28, 1998)
Fiscal Policy	Tight; fiscal adjustment of about 1.5% of GDP, revenue measures comprised mainly increases in tax rate on mineral oil products and broadening of VAT and direct tax bases.	Tight; more accommodative, fiscal surplus target in the original program changed to fiscal deficit target at around 0.7% in the 1 st review and around 1% in the 2 nd review
Monetary Policy	Tight: ceiling on NDA and floor on NIR, indicative targets on reserve money and broad money	Tight; monetary policy to be conducted flexibly with the aim of maintaining stability in foreign exchange market.
Exchange Rate	Flexible	Flexible
Financial Sector	Suspension of 9 insolvent merchant banks, remaining merchant banks required to meet at least a 4% capital requirement ratio; Special session of the National Assembly to be called to pass three financial reform bills, and the schedule of foreign entry into the financial sector to be accelerated; liberalization of restrictions on foreign access to domestic money market instruments and the corporate bond market.	Allow foreign banks and brokerage houses to establish subsidiaries by March 31 st 1998; complete assessment of the recapitalization plans of the commercial banks, introduce legislation to allow a full write-down of existing shareholder equity, eliminating the current minimum bank capital floor for this purpose, establish a unit for bank restructuring under the Financial Supervisory Board with powers and resources for bank restructuring (structural performance criteria through June 30 th 1998)
Corporate Debt	Corporate financial statements to be prepared on a consolidated basis; eliminate restriction on foreign borrowing by corporation.	Corporate restructuring to be voluntary and based on market principles and public funds not to be used to bail out corporations; banks to play a central role in restructuring corporate debt and strengthening corporate balance sheets.
Social Safety Net	Livelihood Protection Program (LPP) was expanded to include cash benefits, tuition fee waivers, lunch subsidies for students with eligibility based on minimum income and asset tests.	Budget allocation for employment insurance fund to be increased, unemployment benefit scheme to be extended.
Other structural changes	Labor market reforms and trade liberalization. Reductions of restrictions on foreign direct investment through simplification of approval procedures.	Assistance to small and medium size enterprises. Further reforms to bring about labor market flexibility.

Appendix Table 6 : Details of the Russian IMF Program(July 1998)

	Original Package (July 20, 1998, the first review was scheduled for September 1998 but not completed)
Fiscal Policy	Reduction in federal government budget deficit to about 5%of GDP; improved revenue collection and explicit expenditure cuts.
Monetary Policy	Tight ; geared towards reducing inflation and promoting a sound BOP position.
Exchange Rate	Market exchange system; neither the government nor the CBR to impose restrictions on payments and transfers for current international transactions or introduce multiple currency practices or bilateral agreements inconsistent with Article VIII of IMF's articles
Financial Sector	Continue development of financial markets and consolidation of banking system through strengthened supervision and improvements in the prudential and supervisory framework
Corporate Debt	Lengthening of debt maturity to reduce the vulnerability arising from short term structure of domestic debt; Ministry of Finance to offer holders of GKO's (short-term zero coupon bonds) the opportunity to exchange them for foreign currency Eurobonds with long maturities at market rates; government to undertake a policy policy of not issuing new debt of maturity of less than one year.
Social Safety Net	Pension reforms; restructuring of the Pay-as-you-go social security system; improve delivery of health services and enhance quality of education
Other structural changes	Measures to address non-payments problem, labor market reform, private sector development

Appendix Table 7: Details of the IMF Program for Brazil

	Original Package (December 2, 1998)	First & Second Reviews completed on March 30, 1999
Fiscal Policy	Tight; primary balance to strengthen by about 2.5% of GDP	Further tightening; primary balance to strengthen by about 3% of the GDP
Monetary Policy	Tight: Net Domestic Asset (NDA) ceilings specified on the basis of a specific sterilization rule; floor on Net International Reserves (NIR) = US \$20 bn	Tight : NDA ceilings were retained, no explicit NIR floor ; performance criterion introduced on net sales of FX futures; intention to move as soon as feasible to a formal inflation targeting framework. (Clauses on implementation of the Inflation Targeting framework introduced in the 3 rd Review in July 1999)
Exchange Rate	Notion that fixed exchange rate regime could be maintained.	Flexible exchange rate; attempt to devaluation on Jan 13, 1999 and real was floated on Jan 15, 1999
Financial Sector	Private banks largely unaffected, larger damage to state owned financial institutions and outstanding bonds financing their restructuring – cost amounted to 6% of GDP in mid-2000	Intention to reduce and streamline the role of public banks in the economy; high level commission asked to review the roles of federal banks and make suggestions regarding mergers, privatization, sales of strategic shares and/or transformation into development agencies; issuance of new regulation on the foreign exchange exposure of the banks
Corporate Debt	Priority on lengthening of maturity.	Rolling over of maturing credit lines on a voluntary basis by the commercial banks
Social Safety Net	Social security benefits and labor protection programs, mainly at national level and some at local levels. Examples of local level programs are <i>Bolsa Escola</i> : targeting cash transfers to low income families on condition of school attendance and child labor eradication programs.	22 assistance programs chosen in collaboration with the World bank and IDB protected from fiscal adjustment in 1999 and 2000.
Other structural changes	Improving long-term public finances, especially those of the provinces; introduction of a nationwide VAT and budgetary process to be guided by Fiscal Responsibility Act; progressive trade liberalization.	Intention of the government to accelerate and broaden the scope of privatization through privatization or leasing of utilities, of toll roads; the sale of remaining shares of previously privatized companies, of the non controlling shares of Petrobras and the sale of redundant real estate properties; government to continue with its policy of trade liberalization both within and outside MERCOSUR; new nationwide VAT to be complemented by selective excises at the federal level