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Responding to Currency Crises in Emerging Market Economies:

The IMF in Indonesia, Korea, and Brazil

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I. Introduction

The 1990s saw a succession of currency crises in emerging market economies, against a background of greater integration with global capital markets. These crises were preceded by large private capital inflows and triggered by sudden shifts in market sentiment, leading to massive capital flow reversals. They are often described as capital account crises to distinguish them from the more conventional crises, which have their origins mainly in the current account.

The International Monetary Fund (IMF) was called in to help in several cases, and its role has been the subject of much study and comment. Contrary to the expectation that IMF support would achieve a rapid turnaround in market sentiment, capital outflows continued, leading to severe exchange rate depreciation and, in some cases, an exceptionally large contraction in output. Stabilization was only achieved after further actions by national authorities, the IMF, and private creditors. Not surprisingly, the IMF was widely criticized both for its failure to anticipate vulnerabilities through surveillance

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during the precrisis period and for the subsequent failure to restore market confidence quickly.

The IMF's Independent Evaluation Office (IEO) took up an evaluation of the role of the IMF in three of these crises (Indonesia, Korea and Brazil) as part of its first work program in 2002.[2] The evaluation work was completed, and a report was prepared and submitted to IMF management and the Executive Board, in the spring of 2003. The evaluation report assessed the effectiveness of the IMF in precrisis surveillance (primarily through Article IV consultations with the member countries aimed at identifying potential vulnerabilities) and crisis management (through adjustment policies supported by financing). This paper discusses the major findings of the evaluation report,[3] explains the recommendations it made, and presents a summary of the discussion of the report by the Executive Board, which was held on May 30, 2003. Interested readers are invited to read the full text of the report, which was published along with management and staff responses and the Acting Chair's Summing Up of the Board discussion (IEO 2003).

The rest of this paper is organized as follows. Section II presents an overview of the three crisis cases, discussing both how each crisis evolved and how the IMF became

[2] The IEO was established by the IMF Executive Board in July 2001 in order to systematically conduct objective and independent evaluations "on issues, and on the basis of criteria, of relevance to the mandate of the Fund."

[3] The evaluation necessarily benefits from hindsight. This can be an advantage in drawing lessons for the future, but much of what is known now may not have been known at the time to those who had to make the relevant decisions, often under extreme pressure. The purpose is to draw lessons, not to establish accountability.

involved. Section III gives a broad assessment of the role of the IMF in each crisis management. Section IV summarizes the main findings of the report on precrisis surveillance, while Section V is a summary assessment of the IMF's crisis management strategy which typically consisted of macroeconomic policies, official financing, and structural reforms. Section VI discusses some commonalities and differences in the three crises that come out of the evaluation. Section VII presents a brief summary of the report's recommendations. Finally, Section VIII concludes with a summary of the Executive Board discussion on the IEO recommendations.

II. An overview of the Three Crisis Cases

A. Indonesia

The crisis began in July 1997 with contagion from Thailand putting pressure on the rupiah. On July 11 the central bank, Bank Indonesia, surprised the markets by widening the intervention margins of the crawling peg exchange rate regime from 8 to 12 percent. Speculation continued, however, and the authorities responded by tightening liquidity, raising interest rates, and intervening in the foreign exchange market. In mid-August, Bank Indonesia decided to float the currency, a step that the IMF strongly endorsed.

Following the float, Bank Indonesia raised the interest rate on 90-day central bank certificates to 28 percent from 11.25 percent and also tightened liquidity by transferring a large amount of public sector deposits out of commercial banks. In early September the government announced a delay in infrastructure projects with a total cost of $13 billion. Despite these measures, the exchange rate continued to depreciate and moved beyond Rp

3,000 per U.S. dollar, more than 20 percent below the average value for the first six months of the year.

Worried by these developments, the Indonesian authorities opened discussions with the IMF in mid-September 1997 on economic policy measures to restore confidence. On their way to the IMF Annual Meetings held in Hong Kong SAR in October, the First Deputy Managing Director and a senior staff member stopped in Jakarta to visit the economic team and President Suharto. The economic team saw some worrying parallels to Thailand and hoped that an IMF-supported program would help to push decisions on dealing with the troubled banks and also to accelerate structural reform in the areas that the team felt were important and that IMF surveillance had earlier identified as needing correction.

The November 1997 program

During October the IMF negotiated a 36-month Stand-By Arrangement for about $10 billion, which was approved by the Executive Board on November 5. Disbursements would be frontloaded, with two tranches of $3 billion each by the end of March 1998. The program also assumed $8 billion in lending from the World Bank and the Asian Development Bank. A press notice also made a reference to the availability of additional financing from bilateral sources, if required, without including it in the headline figure.

Continuing the tight monetary policy already in place, combined with limited foreign exchange market intervention, was expected to bring about an appreciation of the rupiah to a range of Rp 3,000–3,500 per U.S. dollar, compared with the average of about Rp

3,600 per dollar over the period of the negotiation and about Rp 2,400 per dollar for the first six months of the year. Because of the staff assessment that the problems in the private banking system were limited to a small segment, the program did not include a comprehensive bank restructuring strategy. Only 16 of the most troubled banks—accounting for 3 percent of total banking sector assets and including 3 banks connected with the president's family—were closed, with a partial deposit guarantee.

The initial market reaction was positive. The rupiah strengthened strongly in the first two days after the program was announced, in part owing to coordinated foreign exchange market intervention with Japan and Singapore, but this rise was short-lived. Public confidence was undermined when the president's family publicly challenged the bank closure and one of Suharto's sons effectively reopened his closed bank by transferring assets to another bank he had acquired.

The changing crisis

By end-December it was evident not only that the IMF-supported program had failed but also that the crisis in Indonesia was much worse than those elsewhere in the region. The rupiah had depreciated beyond any of the East Asian currencies that experienced regional contagion and was continuing to fall.

Recognizing the ongoing decline in economic activity, the revised January 1998 program relaxed the fiscal targets for the 1998/99 budget from the surplus of 1.3 percent of GDP envisaged in the November 1997 program to a deficit of 1 percent. The revised program also included a much more detailed structural reform agenda, with a specific timetable for implementation. But the revised January program never went forward.

The April 1998 program differed from the January program in two respects. The fiscal stance was substantially more relaxed, as by then the extent of output collapse was more evident. There was also a major change in the monetary stance. Interest rates were raised sharply for the first time since the start of the IMF's involvement. Monetary control was regained, as troubled banks were taken over, thus limiting the provision of Bank Indonesia liquidity support. Real interest rates remained negative, however, as inflation continued to soar. The IMF switched its performance criterion for monetary policy from base money (with partial adjustment for reserve loss) to a more conventional target for net domestic assets in order to better control liquidity support.

However, political developments soon came to a boil, as fuel price increases introduced in early May—against the IMF advice of gradual adjustment—sparked civil unrest. This ultimately led to the resignation of President Suharto on May 21. Vice President Habibie took over the presidency in accordance with the Constitution, and he maintained continuity by retaining the Economic Coordinating Minister, who was responsible for implementing the IMF-supported program. The rupiah continued to depreciate through June 1998, reaching Rp 15,250 per dollar, but it began to strengthen thereafter, and inflation began to stabilize.

A new program was negotiated with the government of President Habibie in August 1998, supported under the Extended Fund Facility. The 26-month Extended Fund Facility arrangement covered the remaining undrawn amount under the initial Stand-By Agreement, equivalent to $6.3 billion. The authorities took decisive measures to deal with the banking sector problems and successfully secured relief for the corporate sector from foreign creditors and a rescheduling of external public sector debt through the Paris Club.

The policies adopted after the spring of 1998 brought Indonesia back from the brink of hyperinflation and led to a significant appreciation of the rupiah. But progress was uneven, and bank and corporate restructuring proved difficult, owing to the continuing influence of powerful vested interests. Output continued to contract until the second half of 1998, primarily because of a collapse in private investment.

B. Korea

Two events in October 1997 transformed growing unease about Korea into a full-fledged crisis. One was the bankruptcy and government-supported debt rescheduling of the Kia Group. Investors, particularly inside Korea, perceived the authorities' actions as excessively interventionist and, in view of the approaching presidential elections in December, politically motivated. This dented confidence in the authorities' ability to pursue sound reform-oriented policies or to avoid potentially huge exposures to other troubled conglomerates.

The second event was the failed speculative attack on the Hong Kong dollar and the dramatic decline in the Hong Kong stock market at the end of October. These events accompanied an increase in the perceived riskiness of Korea in the eyes of many international investors, particularly bank lenders. The Korean stock market fell by more than a quarter in the month of October, and the won came under increased pressure.

The authorities reacted by supporting the won through intervention in the spot and forward foreign exchange markets in the early weeks of November and by moderately increasing overnight interest rates (from about 13.5 to 16 percent). The Bank of Korea accelerated its advances of foreign exchange to banks' overseas branches. Despite these efforts, the won weakened further. An increasing number of foreign banks chose not to roll over their short-term loans to Korean institutions and instead reduced their credit lines. The maturity of existing lines was shortened, and interest rates on longer-term loans were raised.

Faced with the rapid depletion of foreign exchange reserves, the authorities quietly contacted officials from the United States, Japan, and the IMF in an attempt to secure emergency financing. At the authorities' request, the Managing Director of the IMF secretly visited Seoul for discussions with the Minister of Finance and Economy and the Governor of the Bank of Korea on November 16.

The IMF team that arrived in late November had planned to conclude a Stand-By Arrangement by around mid-December, but they found that the position was much worse than it had appeared. Official foreign exchange reserve figures included advances to the overseas branches of Korean institutions and were highly illiquid. Korea's "usable reserves"—calculated by excluding deposits in overseas bank branches—were only around $7 billion, which was very small in relation to maturing short-term debt and other obligations. Unless new financing was provided quickly, Korea might have to impose a standstill on foreign exchange payments, a move that staff, management, and key shareholders feared would have serious regional and international implications. The program was negotiated and agreed in record time, under the exceptional procedures of the Emergency Financing Mechanism.

The December 1997 program

On December 4 the IMF's Executive Board approved the provision of about $21 billion to Korea under a three-year Stand-By Arrangement. The disbursements were to be substantially frontloaded. In addition, the World Bank and the Asian Development Bank were to lend $14 billion in support of restructuring efforts in the financial sector, and a group of bilateral donors indicated that, if necessary, they would be willing to lend a further $20 billion as a "second line of defense."

The second line of defense was a controversial element in the program. The balance of payments projection in the approved program did not actually show that this financing would be necessary. But this presentation was a relatively late decision responding to the instructions conveyed to the staff that the program should not rely on this source of financing. The staff therefore arbitrarily reduced the projected financing gap by increasing the assumed rollover rate for short-term debt to unrealistically high levels. In this respect, the program as presented was clearly underfinanced, although this fact was not explicitly acknowledged.

The program incorporated a tight monetary policy; a small fiscal surplus; a comprehensive strategy to restructure, recapitalize, and reform the financial sector; and measures to reform corporate governance, trade, and the labor market. Nine of the most troubled merchant banks were closed, with their depositors protected by a recently established deposit insurance scheme.

The initial market response was moderately positive, but after a few days the situation took a turn for the worse. Confidential program documents, leaked to the Korean press, revealed the critical data on Korea's reserves and short-term debt, which the IMF and the authorities had been keeping from the markets for fear of damaging confidence. The documents showed that usable reserves were even lower than the market had feared and were declining rapidly. The political environment also created uncertainty since elections were being held. As the market absorbed these developments, rollovers of short-term debt continued to fall, and the won weakened further, falling by 39 percent in the two weeks after the program was approved.

After winning the presidential election on December 18, President-elect Kim Dae-jung announced his determination to carry out the IMF-supported program, and his subsequent actions helped build credibility.

The rollover agreement

Three initiatives—a strengthened reform program, accelerated disbursements, and a coordinated private-sector rollover of short-term debt—were announced on December 24. The IMF played a useful role in the more concerted approach to maintaining private sector exposure by setting up systems to monitor daily exposure and facilitating information exchange among the major governments.

Markets remained volatile for several weeks thereafter but, in retrospect, December 24 proved to be the turning point of the Korean crisis. The international banks by and large kept to their rollover agreement, which was renewed in mid-January and extended to the end of March. Shortly thereafter, the banks agreed to exchange their short-term claims for sovereign debt of between one and three years maturity. With the success of the rollover and maturity extension and moves by the authorities to implement the financial and corporate reform programs, the market's view of Korea improved dramatically. The IMF facility would never be fully drawn and would eventually be paid back ahead of schedule.

The macroeconomic effects of the crisis turned out to be severe but short-lived. Real GDP declined by 6.7 percent during 1998, and unemployment rose to 7.4 percent by year end. Yet signs of recovery were already visible by the end of 1998, and growth rebounded to 10.9 percent in 1999, belying fears expressed by many that the recovery would be L-shaped. The authorities moved quickly to rebuild reserves, which totaled $52 billion at the end of 1998. Following the peak in early 1999, unemployment began to decline steadily, and growth of real wages picked up strongly.

C. Brazil

After mid-1997, turbulence in the global economy and presidential election politics limited the options of the Brazilian government in addressing fiscal and exchange rate issues. Following the onset of the Asian crisis in the fall of 1997, the real came under intense pressure, prompting the authorities to raise interest rates to defend the exchange rate and to intervene heavily in the spot and futures exchange markets.

Early 1998 saw strong capital inflows, including foreign direct investment and short-term flows attracted by the opportunity to arbitrage between high domestic and low international interest rates, given the widespread presumption that the crawling peg would be maintained at least until the presidential election in October.

In the summer, market pressures on Brazil greatly intensified, following the Russian crisis and the difficulties of Long-Term Capital Management in the United States, which led to a sharp decrease in liquidity in international capital markets. Spreads on Brazil's external debt rose steeply along with those for most other major emerging market borrowers. The central bank doubled interest rates in early September, but failed to stem capital outflows.

The December 1998 program

Preliminary work began on the main components of an IMF-supported program in early September 1998, based on Brazilian proposals emphasizing fiscal tightening. The pace of negotiation for a program picked up following the presidential election in October, and the program was approved by the Executive Board in early December.

The December program envisaged maintenance of the existing crawling peg exchange rate regime, but did not specify any immediate change in the rate of crawl. The possibility that exchange rate policy might be modified at subsequent program reviews was left open. The program included strong, front-loaded fiscal adjustment (amounting to over 4 percent of GDP) and a commitment to supportive monetary policy. Conditionality on structural measures was limited mainly to critical areas in public finance and prudential regulation in the financial sector.

Collapse of the peg and the revised March 1999 program

The IMF's decision to support the crawling peg involved significant risks. The business community was not entirely in favor of the peg and had been putting pressure on the president to correct the overvaluation of the currency. Moreover, the IMF decision did not fully impress the markets. General skepticism prevailed in the media coverage of the IMF decision.

Soon after the program was approved and announced to the public, the exchange rate came under new pressure following setbacks in securing congressional approval for some of the fiscal measures in the program. Interest rates were also eased despite IMF misgivings and contrary to an understanding that there would be consultation with the IMF on interest rate policy. Fiscal tensions between the federal government and the states surfaced, and in early January 1999 the governor of the state of Minas Gerais stated publicly that there would be a moratorium of 90 days on state debt payments.

In mid-January 1999 a new central bank governor introduced a complex exchange rate system incorporating a wider exchange rate band in an attempt at a smooth exit from the crawling peg. After losing about US$14 billion of reserves in two days, Brazil moved to a de facto floating exchange rate regime on January 15.

The collapse of the peg signaled that the original program had clearly failed in its central objective. In an emergency weekend meeting between the Brazilian economic team and IMF management in Washington, it was decided that the best policy was to float the real, effective January 18. Both sides then began to revise the program in the light of the change in the exchange rate policy. To arrest and reverse the depreciating trend, the IMF encouraged the central bank to raise interest rates sharply. An increase in interest rates to nearly 40 percent at the start of February was followed by a further increase in the overnight rate to 45 percent in March.

A revised program was agreed in March 1999. The new program, which pioneered the use of inflation targeting as the basis for conditionality in IMF-supported programs, also tightened fiscal policy further, with the aim of ensuring debt sustainability. The indicative target of 2.6 percent of GDP for the primary balance in 1999 was replaced by a target of 3.1 percent as a performance criterion in the revised program. Major international banks voluntarily agreed to maintain trade and interbank lines to Brazil at end-February levels for six months. Against the background of high interest rates, stepped-up sales of foreign exchange in the market, and greater market confidence generally, the exchange rate stabilized. This allowed interest rates to be eased relatively quickly. Progress was also made on structural reforms, although the pace was slower than envisaged in the program.

The revised program of March 1999 was unexpectedly successful in its impact on prices and output. A takeoff in inflation, greatly feared following the depreciation, was averted, and consumer price inflation was held at 9 percent during 1999. Stronger-than-expected external financing, particularly larger inflows of foreign direct investment, facilitated a smoother external adjustment. In contrast to pessimistic projections of a decline in GDP of 3.8 percent in 1999, real output grew by 0.8 percent. The financial sector weathered the crisis well, in part owing to the extensive hedge against depreciation provided by the public sector, which also bore the brunt of temporarily increased interest rates.

Given strong ownership by the authorities, sharply higher primary fiscal surpluses were achieved in line with program targets. The financial support package was largely repaid ahead of schedule, and the arrangement was treated as precautionary from March 2000 on. But the program did not achieve its central declared aim of reducing the ratio of net public debt to GDP, in large part owing to the greater-than-expected depreciation of the currency, which increased the domestic currency value of external and foreign currency-linked domestic debt.

Program outcomes

While the public image of the December 1998 program is largely colored by its failure to defend the crawling peg, the IMF's overall strategy can be judged to have been a success in many respects. Contrary to the program's own pessimistic expectations, the adverse impact of the crisis on output and prices was limited. Through the program, revised to take account of the floating of the real, the IMF facilitated Brazil's transition to a more disciplined fiscal regime and a new monetary regime based on inflation targeting.

One aspect of the December program, however, proved to be a source of later vulnerabilities: it maintained the large transfer of exchange rate risk from the private to the public sector, which had resulted from issuing a large amount of foreign currency-linked debt. The central declared objective of fiscal adjustment—to reduce the ratio of public debt to GDP—was undermined by the large fiscal cost of providing this hedge and defending the crawling peg. The exchange rate depreciated more than anticipated, while the IMF's efforts to encourage the authorities to reduce the proportion of exchange rate-linked debt had limited impact.

III. The Role of the IMF

A. Indonesia

IMF surveillance did identify the vulnerabilities in the banking sector that would later become crucial to the evolution of the crisis, but it underestimated their severity and the potential macroeconomic risks they posed. In designing a crisis management strategy during October 1997, the IMF did not pay enough attention to some critical aspects of ownership and underestimated the likely resistance to reform by vested interests. This underestimation of political constraints was perhaps a reflection of the earlier failure of surveillance in recognizing the changing nature of corruption and cronyism.

The principal weakness of the November 1997 program was the absense of a comprehensive bank restructuring strategy. Lack of clarity on the need to close insolvent banks led to a rapid expansion of liquidity to support weak banks. The resulting loss of monetary control in turn contributed to a weaker exchange rate and greater distress in the corporate sector. Contrary to the views of many external commentators, the tight monetary policy recommended by the IMF was not a cause of the subsequent recession—because such a policy was not implemented. The crisis became intensely political following the illness of the president in early December, making crisis management even more difficult.

The IMF negotiated a revised program in January 1998, which focused heavily on structural conditionality to signal a clean break with the past. The focus on structural conditionality was based on the assumption that this was necessary to restore confidence. It failed to do so, partly because of visible lack of political commitment to the policies promised and partly because of the failure to address the critical banking and corporate debt problems.

The Indonesian crisis was clearly the most severe of the three, with a 13 percent decline in GDP in 1998 and a large increase in poverty. This devastating outcome cannot be attributed solely to shortcomings of the IMF. The lack of firm implementation of the November program, especially the reversal of some critical steps at a very early stage, eroded market confidence. And the situation soon got out of control as political uncertainty increased and riots occurred against the ethnic Chinese community. These exceptional circumstances explain much of the severity of the crisis in Indonesia. But the IMF's response to the failure was also inadequate in many respects.

B. Korea

In Korea IMF surveillance failed to adequately identify the risks posed by the uneven pace of capital account liberalization and the extent of banking sector weaknesses, owing to the reliance on a conventional approach that focused on macroeconomic variables. There were gaps in the data needed to make a full assessment, but available data on short-term debt and financial market indicators were not fully used. Concerns over Korea's weak banking sector had prompted international banks to review their lending to some

Korean institutions even before the onset of the Asian crisis in July 1997, but the IMF was optimistic until virtually the last minute.

The first Korea program was clearly underfinanced, but this was due primarily to the unwillingness of major shareholder governments either to take concerted action to involve the private sector or to provide the necessary financing upfront to resolve what, of all the three cases, was most clearly a liquidity crisis. When this strategy failed, the major shareholder governments moved quickly to facilitate a coordinated rollover and maturity extension of private sector claims—an approach that contributed to a rapid restoration of market confidence.

It could be argued that the first strategy needed to be tried and proven to have failed before the rollover agreement of December 24 could be secured. The IMF played a useful role as crisis coordinator in facilitating information exchanges among major governments and helping to set up a monitoring system to ensure compliance, but it could have signaled more forcefully that the first program was unlikely to succeed.

The Korean adjustment process involved a severe downturn, with GDP declining by 6.7 percent in 1998, compared with a forecast of positive growth. But unlike in Indonesia, this was followed by a robust recovery in 1999. The greater than expected downturn reflected the impact of negative balance-sheet effects, which were clearly underestimated. In retrospect, the fiscal tightening in the program was unnecessary, as the IMF staff has itself concluded, but this was not a major cause of the recession and was quickly reversed.

C. Brazil

In Brazil IMF surveillance was successful in identifying the key vulnerabilities that were at the core of the crisis, in part owing to the fact that they were largely macroeconomic in nature. But it progressively downplayed the scale of overvaluation and had little impact in persuading the Brazilian authorities to take sufficient corrective action even in areas where the diagnosis was correct. When Brazil faced intense speculative pressure on its foreign exchange reserves from mid-1998, the IMF reluctantly supported the authorities' preference for maintaining the existing crawling peg exchange rate regime. However, intense pressure on the real developed, and the program soon failed with the collapse of the peg in January 1999.

A major justification for maintaining the exchange rate regime was that an exit from the peg at that time would have unsettled international financial markets already nervous after the Russian default and the Long-Term Capital Management crisis. With the benefit of hindsight, this concern was overplayed. An earlier exit from the peg, widely perceived to be unsustainable, probably would not have had major systemic effects if it had been made under an IMF-supported program. The hedge provided to the private sector by the government, through the use of foreign exchange reserves and exchange rate-indexed bonds, ensured that the sharp depreciation that followed the floating of the real in January 1999 had little adverse effect on the Brazilian economy. But this was at the cost of a substantial increase in the stock of public debt and was against the spirit of IMF advice.

The revised 1999 program fared fairly well in the short run. Contrary to program expectations of negative growth in 1999, Brazil actually experienced positive growth of

0.8 percent. This was largely because of the healthier state of the banking system, combined with the provision of the hedge, which mitigated balance-sheet effects on the private sector. The IMF played a useful role in facilitating Brazil's transition to an inflation-targeting monetary regime as well as a more disciplined fiscal policy regime. Although implementation of structural reforms was mixed, the Fiscal Responsibility Law made a significant contribution to achieving higher fiscal surpluses. But in retrospect, fiscal vulnerabilities were not fully eradicated.

IV. Precrisis Surveillance

The effectiveness of IMF surveillance during the precrisis period varied in the three countries. Surveillance identified the central problems in Brazil reasonably accurately, but it was much less effective in Indonesia and Korea. It identified specific weaknesses in these countries, but underestimated their seriousness and thereby failed to provide sufficient warning. This difference in effectiveness partly reflected the fact that Brazil suffered primarily from macroeconomic imbalances, a conventional focus of IMF surveillance, whereas in Indonesia and Korea the critical problems lay in weaknesses in the financial and corporate sectors.

IMF surveillance identified these weaknesses, but it did not produce an accurate assessment of the extent of the vulnerabilities they posed. Surveillance reports were insufficiently candid about potential vulnerabilities, especially those related to governance issues. In part, these problems reflected weaknesses in data availability that subsequent initiatives have made a major effort to correct, but they also reflected internal incentives that discouraged candor. More generally, there was insufficient appreciation of the fact that weak balance sheets can pose substantial macroeconomic risks, even when most macroeconomic indicators suggest no obvious major problems.

IMF surveillance was more successful in identifying macroeconomic vulnerabilities than in recognizing and analyzing in depth the risks arising from financial sector and corporate balance-sheet weaknesses and the governance-related problems that contributed to those weaknesses. Insufficient candor and transparency limited the impact of surveillance on policy, even in areas where the diagnosis was broadly accurate.

In Indonesia the IMF did identify banking sector weaknesses as a problem, but surveillance reports underestimated the potential adverse macroeconomic consequences of these weaknesses. Surveillance also paid insufficient attention to the changing nature of corruption and the macroeconomic risks it posed, and surveillance reports were less candid on these issues.

In Korea the IMF failed adequately to recognize the vulnerabilities created by the uneven sequence of capital account liberalization and the risk that a change in investor sentiment could cause a severe drain on foreign exchange reserves. While the crisis also came as a surprise to many other observers, the IMF was slow to catch the rising concerns of international banks over Korea's banking sector problems, which had begun to surface several months before the onset of the full-blown crisis. In retrospect, surveillance proved too sanguine about these growing risks.

IMF surveillance effectively diagnosed the major vulnerabilities in Brazil, largely because the economy's vulnerabilities manifested themselves primarily as macroeconomic phenomena, such as the rising stock of public debt and real exchange rate appreciation, which were part of the IMF's traditional toolkit.

In all three countries the IMF's role as confidential advisor was not very effective in persuading countries to modify their policies even when key vulnerabilities were identified. In some cases, the IMF was not provided with sensitive information required for effective surveillance. It is difficult to generalize from three cases, or to test the counterfactual concretely, but the IMF probably could have been more effective in influencing policy if it had made its analyses public so as to contribute to a wider policy debate.

Even where vulnerabilities were identified, the IMF's surveillance in the period leading up to the crisis tended to have little practical influence on critical policies and was generally not successful in promoting remedial action to address these vulnerabilities. This should not necessarily be interpreted as a shortcoming. As previous internal and external reviews have noted, IMF surveillance is only one influence on economic policies in member countries, and generally not the predominant one. While it is too much to expect IMF surveillance to achieve more than it is capable of, evidence from the three case studies suggests that at least four factors contributed to the limited impact of surveillance.

First, surveillance suffered from a reluctance to be candid in stating difficult or embarrassing facts and views, for fear that this would alarm the markets or generate conflict with national authorities. There were a number of occasions when important concerns were raised in internal documents or during the internal review process, but these issues were not adequately reflected or were discussed only in an oblique manner in the documents later prepared for the Executive Board. Even if members of the staff or the Board knew of and discussed these issues off the record, the fact that these discussions were not contained in written reports hindered effective diagnosis and decision-making and made it difficult to transfer country-based knowledge among staff members.

Second, in some cases country authorities were not receptive to the IMF’s policy advice, typically reflecting domestic political constraints (as in the case of deregulation in Indonesia). When an issue of highly sensitive nature was involved, such as exchange rate policy in Brazil, there were honest differences of view.

Third, the impact of IMF advice was necessarily limited when no program was involved. This meant that the IMF’s influence was particularly limited by the general strength of capital flows to emerging markets in the period preceding the crisis. The IMF’s views did not figure strongly until the crises were at hand.

Finally, information weaknesses affected not only the quality of surveillance, but also its impact. As a 1999 review of surveillance by an IMF-commissioned group of outside experts noted, the absence of hard numerical evidence on financial sector weaknesses, reserves, and external debt limited the staff’s ability to make a forceful case to the authorities about the vulnerabilities in Korea. The same also applied to Indonesia, particularly in the area of banking data.

V. Program Design for Crisis Management

A. Macroeconomic Framework and Projections

In all three cases, macroeconomic outcomes turned out to be very different from program projections. In Indonesia and Korea, the initial projections were overly optimistic, leading to the design of macroeconomic policies that turned out to be too tight given the outcome in aggregate demand and output. In contrast, the initial projections for Brazil in 1999 were too pessimistic, which contributed to fiscal adjustment that turned out to be insufficient, in light of that country's adverse public debt dynamics.

Part of this problem arises because macroeconomic projections in an IMF-supported program are necessarily the outcome of negotiation. Moreover, forecasts were not derived from an analytical framework in which the key determinants of output, and their likely behavior during the crisis, could be dealt with adequately. In particular, there was insufficient appreciation of the large currency depreciation that might occur in view of the possibility of multiple equilibria, and the severe balance-sheet effects that might result.

It is inherently difficult to forecast macroeconomic outcomes reliably, especially in a crisis situation. But these problems could have been reduced if there had been a more explicit focus on the key factors affecting aggregate demand, particularly private investment.

In light of the considerable uncertainties, a more explicit discussion in program documents of the major risks to the macroeconomic framework, with a clear indication of how policies would respond if the risks materialized, would have been helpful. In practice, program reviews on Indonesia and Korea did show flexibility, but an upfront recognition of risks and identification of alternative policy responses would have sent a more transparent signal on the expected stance of policies.

B. Fiscal Policy

All three programs initially involved fiscal tightening. The tightening was mild in Indonesia and Korea, fairly strong in Brazil. In view of output developments and the low level of government debt, tightening of fiscal policy in Indonesia and Korea was not warranted, and it was in fact relaxed when the extent of output collapse became evident. In any event, in neither country was the initial fiscal tightening the cause of the output collapse. This was the result of balance-sheet effects, which were not factored into program design. In Brazil fiscal tightening was much sharper. This was appropriate because debt sustainability was a major issue driving the evolution of the crisis. However, it turned out to be insufficient to achieve the objective of stabilizing, and then reducing, the debt-to-GDP ratio.

C. Monetary Policy

The stance of monetary policy in all three countries was initially set tight, with an explicit recognition of the tradeoff between higher interest rates and a weaker exchange rate. But the experience of the three countries varies and does not provide a definitive answer to the ongoing debate on the effectiveness of high interest rates in stabilizing the exchange rate.

In Indonesia the maintenance of tight monetary policy envisaged in the program was simply not implemented, as the monetary base expanded rapidly and real interest rates became increasingly negative during the early months of the program. The assertion by some critics that the tight monetary policy advocated by the IMF was a cause of the output collapse is not warranted for the simple reason that it was not implemented for most of the crisis period. Exchange rate stability returned in March 1998, when the rupiah had sufficiently depreciated and interest rates were raised and monetary control was regained.

In contrast, Korea implemented the tight monetary policy envisioned in the initial program by raising domestic interest rates and the penalty rate charged to banks for central bank foreign currency advances. These moves were appropriate to defend the currency, but they were not by themselves sufficient to stabilize the exchange rate, because much of the capital outflow was driven by credit considerations rather than yield. It can be argued that real interest rates were kept higher than might have been necessary in early 1998, when the exchange market had stabilized. But the still uncertain situation understandably called for some caution. Given the contractionary impact of bank restructuring on credit flows, the few months of higher than necessary interest rates could not have been the dominant cause of the recession.

In Brazil, the excessive easing of interest rates—over the IMF's objections—may have contributed to the timing, if not the eventuality, of the collapse of the crawling peg. A decisive tightening of monetary policy in March 1999 coincided with the restoration of stability in the foreign exchange market. However, one must be careful about the causality, given the fact that an informal agreement by major international banks to maintain credit lines to Brazil was reached around the same time. High interest rates did not have a major negative impact on the private sector, because of the relatively sound state of the banking system and the relatively low leverage of the corporate sector, compared with the situations in Asia. Subsequently, the IMF supported Brazil's transition to an inflation-targeting regime, which allowed for price stability and a rapid reduction in interest rates

D. Size of Official Financing

The size and format of the official financing package were inadequate in Korea and contributed to the failure of the first program. The ambiguity over the availability of $20 billion in bilateral assistance pledged as a "second line of defense" in Korea created uncertainty in the market about the ability of the program to meet the country's immediate liquidity needs.

In the other two countries, the programs failed for other reasons. The failure of the initial Indonesian program was due not to inadequate financing but to other factors, including non-implementation of the key elements of the program by the authorities and the subsequent explosion of liquidity. Once the program had failed, the crisis became intensely political, leading to a large amount of capital flight by domestic residents, and the sharp depreciation of the rupiah began to create solvency concerns. No reasonable amount of official financing could have restored confidence at that time. In Brazil the initial program failed because the key policy—supporting the crawling peg exchange rate regime—was not credible to the markets.

E. Private Sector Involvement

In Korea the IMF's role as crisis coordinator in organizing private sector involvement (in a burden sharing arrangement with the official sector) was limited in the early stages of the crisis by the unwillingness of major shareholder governments to use non-market instruments to influence the behavior of private sector institutions, and by concerns that such action might precipitate an exodus of capital from emerging markets. However, once a decision was made by the major shareholders to involve the private sector in maintaining exposure, the IMF played a useful role in facilitating information exchange among major governments and helping to set up systems for monitoring compliance.

Given the initial unwillingness of the IMF's major shareholder governments to take concerted action, there was probably little the IMF could do. The agreement by major international banks to roll over interbank debt on December 24, 1997, was a turning point in the Korean crisis. The success of this approach owed much to the fact that most of the short-term external debt was interbank credit. An earlier attempt to involve the private sector in Korea would have been warranted.

The Brazilian experience in the second program suggests that a program with a high degree of credibility is necessary for the "voluntary" approach to private sector involvement to work. Not until the peg was abandoned and the new IMF program applied inflation targeting as the basis of conditionality did international banks agree to maintain trade and interbank lines to Brazil for at least six months. Once the agreement was made, the IMF played a useful facilitating role. In Indonesia the IMF provided technical assistance for corporate debt restructuring, but its role was limited.

F. Bank Closure and Restructuring

The experiences of Indonesia and Korea suggest that a successful bank closure and restructuring program must include a comprehensive and well-communicated strategy in which transparent rules are consistently applied. The Korean program by and large achieved its objectives, mainly because a comprehensive strategy was developed at the outset.

The Indonesian banking sector program, by contrast, initially suffered from the lack of a comprehensive strategy and the failure to communicate the logic and outline of the policy to the public. So, the closure of 16 banks in November 1997, with subsequent reversals, exacerbated rather than dampened the crisis. The bank closures in Indonesia in April 1998 were more successful because they were part of a comprehensive strategy that was well communicated to the public and based on the consistent application of uniform and transparent criteria.

Whether a blanket guarantee, instead of the partial guarantee actually offered, should have been introduced in Indonesia in November deserves careful consideration. The evaluation suggests that the banking crisis was not yet systemic in November, so that the partial guarantee was appropriate. In the end, the blanket guarantee introduced in January was subject to abuse and consequently raised the fiscal cost of bank restructuring. The problem in bank restructuring was more with the initial lack of a comprehensive and well-communicated strategy than with the nature of the guarantee.

G. Structural Conditionality

All three programs involved structural conditionality, but the experience with conditionality was very different. The Indonesian and Korean programs were characterized by extensive structural conditionality (especially the January 1998 Indonesian program) covering several areas that were not macro-critical. The scope of structural conditionality in the Brazilian program was limited to structural fiscal reform and prudential regulation. Part of this difference reflected the absence in Brazil of many of the distortions that had been present in Asia.

Measures to rehabilitate and reform the financial sector were necessary in both Indonesia and Korea and were appropriately included in the programs. In Indonesia it was also important to tackle corporate restructuring, including by reforming the legal system, but this element was missing in the first two programs. As for the various nonfinancial structural reform measures included in the Indonesian and Korean programs, many of these may have been beneficial in improving long-run economic efficiency, but they were not necessary as part of the immediate crisis resolution.

In Indonesia many governance-related measures were included in the January program at the urging of some of the IMF's major shareholders in the belief that confidence could be restored only by signaling a clean break with the past. But the evaluation suggests that the proliferation of nonfinancial structural conditionality led to a loss of focus on critical reforms in the banking sector, which was more important for restoring stability. Proliferation of structural conditionality may also have led to lack of ownership at the highest political level and non-implementation, both of which damaged confidence.

H. Communications Strategy

A program for restoring confidence must include a strategy to communicate the logic of the program to the public and the markets, in order to enhance country ownership and credibility. None of the three programs initially contained such a strategy.

Effective public communications are essential to build broad support for the program. Likewise, effective dialogue with the markets would improve program design through understanding the expectations of market participants, and also help build credibility for the program. It is important for the IMF to explain clearly the logic and strategy of the program, including spelling out the major risks, with a broad indication of how policies would respond to them.

VI. Commonalities and Differences in the Three Crises

The three cases share several features common to capital account crises. In each case the crisis occurred because of massive reversals of capital flows triggered by a shift in market sentiment. Short-term flows played a prominent role in the process, and contagion was an important factor. All three crises led to IMF-supported programs involving large amounts of IMF resources, supplemented by those of bilateral agencies and other sources.

In Indonesia and Korea, IMF surveillance failed to signal alarm because the crisis occurred against the background of sound macroeconomic fundamentals, including good export growth performance, relative price stability, and broad fiscal balance. There were vulnerabilities in both cases in the form of financial sector weaknesses, highly leveraged corporate balance sheets, weak public and corporate sector governance, and rising short-term unhedged external indebtedness. These potential vulnerabilities were identified in varying degrees in IMF surveillance. But their seriousness and implications were not adequately appreciated, because the vulnerabilities were rooted in the private sector and the financial system in particular, not yet core areas of IMF surveillance. The fragile financial sector in both Indonesia and Korea meant that the crisis in each case was a "twin crisis," with a balance-of-payments crisis taking place at the same time as a banking crisis.

Brazil, by contrast, showed clear evidence of critical macroeconomic imbalances—a chronic deficit in the fiscal account, rising public sector debt, and real exchange rate appreciation. The IMF's surveillance was much more effective in identifying these vulnerabilities because they were rooted in macroeconomic policies and the public sector, areas of conventional focus. Unlike in Indonesia and Korea, banking sector weakness was not a serious problem in Brazil at the time of the crisis.

All three countries experienced sharp declines in currency values, but the fall of the Indonesian rupiah far exceeded that of either the Korean won or the Brazilian real, reflecting the exceptional nature of the Indonesian crisis. Output fell sharply in Korea and even more so in Indonesia, where there was also a significant increase in the incidence of poverty. While in Korea there was a strong rebound in the second year following the crisis, in Indonesia the recovery was delayed and in some ways has not yet been fully achieved. Brazil weathered the crisis better than expected, with the economy showing positive growth in the year following the crisis. But underlying vulnerabilities resulting from unfavorable debt dynamics were not eradicated, surfacing again in 2002.

The political environment in the three cases was also very different, and this had a profound impact on the effectiveness of crisis management in each country. In Brazil and Korea, after some initial uncertainty, there was strong political commitment to the program, which helped to achieve credibility. In Indonesia, on the other hand, the economic crisis was compounded by an evolving political crisis, rendering crisis management ineffective.

VII. IEO RECOMMENDATIONS

Since the three crises, the IMF has taken many initiatives to strengthen its surveillance and program design. Many of the weaknesses in surveillance and program design identified here have already been addressed by the IMF in its revised policies and procedures. Even so, continued efforts would be necessary in several areas in order to further enhance the IMF's effectiveness in surveillance and crisis management. The evaluation report made the following recommendations.

A. Take a Stress-testing Approach

Article IV consultations should take a "stress-testing" approach to the analysis of a country's exposure to a potential capital account crisis. The current guidelines, revised in September 2002, already suggest that surveillance should include "comprehensive assessments of crisis vulnerabilities," covering "economic fundamentals that may have an impact on market sentiment," "risks arising from global market developments," and "factors affecting a country's ability to deal with a sudden shift in capital flows." This approach should be extended and systematized.

Reports for Article IV consultations could itemize the major potential shocks that the economy could face in the near future, explore the likely real and financial consequences of each of these shocks—including balance-sheet effects—and discuss the authorities' plans for dealing with them. Such discussion should cover the effectiveness of any existing social safety nets both as automatic fiscal stabilizers and as a means of mitigating the impact of a crisis on the most vulnerable groups in society.

To develop a greater understanding of the political constraints that may affect policymaking, Article IV consultation missions should seek a wider dialogue with individuals beyond senior economic officials, especially those in the domestic and international financial communities.

B. Make Surveillance Assessments Candid and More Public

The IMF should take additional steps to increase the impact of surveillance, including making staff assessments more candid and more accessible to the public.

The recently revised surveillance guidelines call for Article IV consultation reports to contain a more systematic assessment of what happened as a result of the IMF's previous policy advice (along with an opportunity for the authorities to comment on the advice). To make such assessments more operationally relevant, the IMF could develop escalated signaling procedures when key vulnerabilities are not addressed over several rounds of surveillance.

The IMF should also explore the possibility of seeking "second opinions" from outside the IMF when the authorities disagree with the staff's assessment on issues that are judged to be of systemic importance. This would improve the objectivity of handling contentious issues in the surveillance process and perhaps enhance its impact. It would also serve as a building block for escalated signaling.

Reports for Article IV consultations should be published to generate a more informed debate on the need for structural reforms oriented toward crisis prevention. The public would also be better informed about the underlying rationale of the reforms that the IMF might subsequently deem necessary in the event of a program. Encouraging publication of country-level analytical work by staff would also contribute to the quality of IMF advice and public policy debate.

C. Revisit the Design of IMF-supported Programs

A comprehensive review of the IMF's approach to program design in capital account crises should be undertaken. The IMF's internal reviews have already generated many important lessons for program design, and this evaluation has highlighted a number of others. The proposed review or redesign should be oriented around two key principles:

- The interaction of balance-sheet weaknesses and key macroeconomic variables is critical to how the economy will respond.

- The overriding objective of a crisis management program should be to restore confidence.

In particular, much more attention should be paid to balance-sheet interactions and their consequences for aggregate demand, especially in capital account crises. With the associated prospect of a large change in the exchange rate, an obvious message from the case studies is that designing programs around a single real GDP growth projection, inevitably the result of negotiation, can lead to significant problems in macroeconomic program design.

Program design should also allow for a flexible response if outcomes are unfavorable. Large changes in key variables in a capital account crisis may render the original program irrelevant very quickly, and the appearance of persevering with a failed program can be damaging to market confidence. Program documents should spell out explicitly how macroeconomic policies will respond in the event of sharper-than-programmed economic downturns, and this should be clearly communicated to the public.

The conventional framework of conditionality based on financial programming should be reviewed to see if, and how, it should be adapted to the circumstances of capital account crises. It may be preferable to agree, in addition to performance criteria, to a mechanism of triggering consultations on monetary and fiscal policy, with some understanding on how the mix of policy needs to change in light of evolving circumstances. Just such an approach was taken in Korea in December 1997 in the setting of interest rates and in Indonesia in March 1998 when particular interest rate actions were specified. The approach to program conditionality in countries with formal inflation targeting frameworks for monetary policy is also evolving in this direction.

A crisis should not be used as an opportunity to force long-outstanding reforms, however desirable they may be, in areas that are not critical to the resolution of the crisis.

Finally, program design should include an agreed strategy to communicate the logic of the program and any subsequent program-related information to the public and the markets. Such a strategy should be characterized by a high degree of transparency, including the immediate publication of letters of intent and early disclosure of any unfavorable information.

D. Official Financing

Since restoration of confidence is the central goal, the IMF should ensure that the financing package, including all components, is of credible quality and sufficient to generate confidence.

Financing packages prepared by the IMF should not rely on parallel official financing, unless the terms of access are clear and transparently linked to the IMF-supported strategy. Attempts to inflate the total amount of financing by including commitments made under uncertain terms would risk undermining the credibility of the rescue effort. This implies that if the IMF is to play an effective role as crisis coordinator, either it must have adequate financial resources of its own or the availability of additional official financing should be made subject to a single, predictable framework of conditionality.

When parallel financing is sought from other international financial institutions, the terms of reference for their engagement should be specified at the very outset, including mechanisms to resolve differences of opinion and to specify the manner in which their inputs are reflected in program design. This is particularly important for collaboration with regional development banks, for which no established procedures exist.

E. The IMF as Crisis Coordinator

The IMF should play a central role in identifying circumstances where more concerted efforts (as were eventually undertaken in Korea) can be useful in overcoming "collective action" constraints. This should be based on a meaningful dialogue with the private sector, building on the new mechanisms for such a dialogue that have been established in recent years.

VIII. Executive Board Discussion

In responding to the evaluation report, both IMF management and the Executive Board expressed broad agreement with many of its conclusions and recommendations. In particular, in their discussion of the report on May 30, 2003, Executive Directors "shared the report's view that the IMF made some mistakes, and that the crises highlighted the need for improvements in the IMF's policies and procedures." They "considered that the report has provided useful recommendations on how to further improve IMF sruveillance and program design, and on how to enhance the catalytic role of IMF financing and the role of the IMF in coordinating crisis management and resolution."Management and the Board indicated their intention to revisit these issues as part of the ongoing work program.

A. On Taking a Stress-testing Approach

Directors agreed that it is essential to strengthen the focus and effectiveness of IMF surveillance by extending and systematizing assessments of crisis vulnerabilities. Surveillance discussions should identify major shocks that the economy could face in the near future, explore the real and financial consequences of these shocks, including balance sheet effects, and discuss the authorities' plans for dealing with these shocks if they materialize. Directors emphasized that within the general framework endorsed by the Board, vulnerability assessments—and particularly stress-testing—should not be overgeneralized and exhaustive. They should focus on the key risks and economic realities facing the member in question. And the assumptions underlying such assessments should be set out clearly to allow a proper interpretation of the results and help inform the ranking of reforms by authorities.

B. On Making Surveillance Assessments Candid and More Public

Directors strongly supported greater candor in the assessment of country risks and vulnerabilities in staff reports, building on the increase in candor that has already occurred. The provision of institutional incentives to the staff to facilitate such candor was also encouraged. Even so, Directors expressed a range of views about potential conflict between candor and transparency—and the implications of the proposed shift from voluntary to presumed publication of staff reports.

Many Directors warned that greater candor in published staff reports could impair market confidence and the IMF's dialogue with countries. Some felt that what really matters is candor in face-to-face consultations with the key decision-makers in a country, rather than in the staff report.

C. On Revisiting the Design of IMF-supported Programs

Directors recognized that program design plays a critical role in the determination of program success. Directors agreed that the primary objective of a crisis management program should be to help restore confidence by implementing a comprehensive set of policies that effectively address the root causes of the crisis. Directors noted that the IMF's increased attention to financial sector surveillance has reduced the risk that vulnerabilities in the financial sector will be neglected in program design. At the same time, many Directors also concurred that much greater attention needs to be paid to the interaction of balance-sheet weaknesses and key macroeconomic variables, including the implications for aggregate demand, especially in capital account crises where the possibility of multiple equilibria exists—although it was acknowledged that the estimation difficulties may be formidable.

D. On the IMF as a Crisis Coordinator

Directors emphasized the importance of all members working together constructively when a program is being negotiated. They noted that for the IMF to play an effective role in coordinating efforts of other members, management should provide the Executive Board and member countries with candid assessments of the probability of success of a proposed strategy, including frank feedback when parts of a strategy favored by some members lower this probability. And they should protect the technical judgment of the staff from excessive political interference. Many Directors attached particular importance to the early involvement of the private sector in crisis resolution. They emphasized that the authorities, not the IMF, should take the lead in negotiations with the private sector.

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