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IMF STABILIZATION PROGRAMS

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The International Monetary Fund (IMF) was established after the Second World War at Bretton Woods (along with the International Bank for Reconstruction and Development, now referred to as the World Bank) as a multilateral institution to coordinate exchange rate arrangements among nations. The immediate concerns of the original IMF architects focused on avoiding the competitive devaluations of the 1930s, while at the same time encouraging liberalization of the world trading system.² It was anticipated that there would be a worldwide system of “fixed, but adjustable” exchange rates, with adjustments coming only when there was “fundamental disequilibrium” (as determined by the IMF staff). In normal times, it was thought that there might be temporary financing problems for countries who could maintain their fixed exchange rates with the help of the IMF.

The degree of disequilibrium in the international economy immediately after the Second World War was not anticipated, and there emerged a de facto dollar standard, although the dollar was pegged to gold. The IMF functioned much as expected in occasional balance-of-payments crises among

¹ I am indebted to Marco Sorge for research assistance.

² It was intended that there be an International Trade Organization, along with the IMF and World Bank. The ITO was to oversee trading arrangements. But the ITO never came into being; instead of an international organization, the General Agreement on Tariffs and Trade (GATT) came into being by executive degree, and there was no international organization until the World Trade Organization (which incorporated the GATT) in 1995. For a brief history of the founding of the Bretton Woods institutions, see Krueger (1999).

developed countries, such as the pound devaluations of 1949³ and 1967 and the German appreciation of 1960. However, most Fund activity was with developing countries even in its initial decades as the strength and resources of the American economy dwarfed those of the Fund, while the perceived needs for reconstruction support (which came in large part from the Marshall Plan) had been greatly underestimated.

Among the developing countries, balance of payments difficulties were sufficiently frequent so that the Fund quickly came to be involved in several of these crises annually. During the 1950s and 1960s, the Fund dealt occasionally with developed countries' exchange-rate or payments difficulties, but the bulk of its activities consisted of "stabilization programs" for developing countries.

By 1973, the "Bretton Woods" system of fixed, but adjustable, exchange rates was abandoned, as the major developed countries adopted floating exchange rates. With that, IMF stabilization programs became centered almost entirely on individual developing countries. The basic content of these programs remained much the same over the years, and is discussed first in Section I. A key feature of the international financial system, as it interacted with these crises and subsequent programs, was that the trigger for a crisis usually took the form of an inability to service debt. Most of that debt was either short term trade credits or owed to official creditors.

With the 1980s, the first major change in Fund stabilization programs took place. That is, some of the countries confronting crises had very large volumes of debt, both short and long term, outstanding to private creditors. The Fund's resources were often small relative to the size of outstanding private indebtedness, and it changed the nature of the way in which the Fund could support countries in crisis.

³ The French, however, undertook an early devaluation and notified the IMF only after they had done so.

However, throughout the 1980s, most of these countries still maintained fairly severe and stringent capital controls, and many maintained quantitative restrictions on imports.⁴

By the 1990s, however, some of the rapidly growing developing countries had greatly liberalized their trade regimes and opened their capital accounts to a considerable extent. In some instances, when crises arose, domestic financial systems were impacted in ways that will be examined later. This changed both the time frame in which crises could erupt and be addressed, and the nature of the impact of crises on the domestic economy.

Although Mexico confronted a balance-of-payments-cum-financial crisis (twin crisis) late in 1994, most observers of the world economy were alerted to these new-style crises with the Asian financial crises of 1997-98. The magnitude of the crises and the severity of the impact on the crisis-afflicted countries led many to question the role of the IMF both in failing to prevent the difficulties and in overseeing programs intended to address the crisis situations.

The purpose of this paper is to examine the role of the IMF in the 1990s twin crises. The place to start, however, is with the more traditional IMF stabilization programs of the 1960s and 1970s. That is the subject of Section 1. In section 2, the analysis extends to cover situations in which balance of payments crises are accompanied by financial crises. A third section then considers the sorts of programs which must be developed when the financial and exchange rate crisis occur simultaneously.

On the basis of that analysis, two of the IMF programs effected in the Asian crisis - Korea and Indonesia - will be examined in Section 4. Section 5 then draws on the experience under these

⁴ Many of the African countries were very hard-hit in the debt crisis of the 1980s. It was evident that they could not finance short-term borrowing from the Fund, and longer-term arrangements were established to support them. These longer-term facilities have been subject to considerable criticism, and the Executive Directors voted to abolish them in September 2000.

programs and contrasts them with the behavior of some other crisis countries and countries not subject to crisis.

1. Traditional Stabilization Programs

If a fixed exchange rate is to be maintained, there are several policy options when demand for foreign goods grows more rapidly than the foreign demand for domestic goods, or vice versa. Assume, as is more frequently the case, that there is excess demand for foreign goods, so that the country incurs a current account deficit not offset by long-term capital inflows.⁵ In that event, the current account deficit can be financed in the short run by running down foreign exchange reserves, or borrowing from abroad. But unless something else changes, the deficit is unsustainable and policy measures will have to be taken to reduce or eliminate it.

There are two alternatives if a fixed nominal exchange rate is to be maintained. A first is to let domestic monetary and fiscal policy be sufficiently deflationary so that domestic prices fall relative to those in the rest of the world (or fail to rise as rapidly as prices are rising in the rest of the world) and/or domestic incomes fall (and hence the demand for foreign goods shifts downward while the domestic supply of exportables increases). The second alternative is to impose exchange controls, rationing the available foreign exchange through quantitative means across various demanders, and attempting to restrict foreign exchange usage to the available supply of foreign exchange. This can be achieved, at

⁵ More generally, the current account deficit simply needs to exceed the volume of voluntary net capital inflows. Hence, if a country is a recipient of some FDI and no other capital inflows, the relevant “deficit” is the current account balance less the net FDI. But it simplifies the exposition to assume no voluntary capital flows so that the entire current account deficit must somehow be financed.

least to some degree, although over time private agents discover a number of ways in which to evade the regime.⁶

In the 1950s and 1960s, many developing countries chose to use quantitative restrictions (QRs) to keep their current account deficits from becoming larger than could be financed. These QRs were permitted on “balance of payments” grounds under GATT rules. But the costs of these QRs mounted over time, as export earnings failed to grow as rapidly as real GDP (as the real exchange rate was appreciating because the domestic inflation rate was greater than that in the rest of the world), while it was increasingly difficult to contain the growing excess demand for imports.

Even in the world of the 1950s and 1960s, a “crisis” eventually took place.⁷ In some countries, the crisis was triggered when the lack of imports began severely restricting economic activity. This was the case in Turkey, for example, in 1958 when the crops (which were a major source of export earnings) could not be harvested for lack of petroleum imports and hence an inability to use farm machinery to harvest or to transport crops to ports. In other instances, the unavailability of sufficient foreign exchange to maintain voluntary debt service signaled the onset of the crisis. This was the more frequent trigger for change in regime in some Latin American countries where accelerating inflation at a fixed (or insufficiently adjusted) nominal exchange rate led to rapidly rising demand for foreign goods and services, which the authorities attempted to satisfy (in an effort to reduce inflationary pressures) until financing sources dried. Excess demand for foreign exchange - usually expansionary fiscal and monetary policy - also led to

⁶ As excess demand for foreign exchange builds up under a fixed nominal exchange rate and exchange control, various forms of evasion spring up. These illegal flows (smuggling, false invoicing, etc.) generally resulted in large “errors and omissions” items in the balance of payments statistics of countries attempting to contain excess demand for foreign exchange as the real exchange rate appreciated to more and more unrealistic levels. One of the extreme instances was in Ghana in the early 1980s, when the black market exchange rate reached a level more than 900 percent above the official exchange rate.

⁷ For a good documentary history of the IMF, see James (1996).

accelerating inflation, which finally reached unacceptable levels. In these circumstances, real exchange rates had appreciated greatly by the time the crisis point was reached.

Regardless of the triggering mechanism, the underlying problems were similar in origin: excess demand for goods and services had resulted from fiscal deficits and expansionary monetary policy. At the point when crisis was finally recognized⁸ and the authorities approached the IMF, the usual situation was that current account expenditures exceeded current account revenues by a considerable margin (often with a large errors and omissions item in the balance of payments, as well, reflecting unrecorded outflows); that the real exchange rate had appreciated substantially relative to other countries; that the rate of inflation was unacceptably high; and that all of these had been driven in large part by fiscal deficits. In many instances, there were capital outflows occurring through such mechanisms as underinvoicing of exports, overinvoicing of imports, inflated tourist expenses, and overstated factor payments abroad. Simultaneously, in anticipation of an exchange rate change, importers were attempting to accelerate imports and build up inventories, exporters were delaying exports, and so on. Despite capital controls, the number of devices people could find with which to speculate against a currency was remarkable.⁹

When the IMF was approached for support, the usual situation was one in which the problems mentioned above had to be addressed and, in addition, the lack of imports was itself fueling inflation and restricting production. The term “stabilization” came about because these economies at times of balance-of-payments crisis were thought of as spiraling out of control, with inflation rising, efforts at capital flight intensifying, and debt-servicing difficulties mounting at increasing rates. The essential IMF

⁸ Defining a crisis is difficult. What is one country’s crisis is another country’s everyday occurrence. See Little, Cooper, Corden and Rajapatirana (1993) for a discussion.

stabilization program, therefore, usually consisted of an agreed-upon set of ceilings on fiscal deficits and domestic credit creation¹⁰, and a change to a new, fixed, nominal exchange rate.¹¹

The altered exchange rate very often immediately reversed the speculative capital outflow, so that the recorded balance of payments position could improve very quickly. The fiscal and monetary tightening associated with the fiscal and domestic credit ceilings usually resulted in a slowdown in the rate of economic activity and in the rate of inflation, which in turn reduced the excess demand for imports and freed up the supply of exports. All of these measures then served to generate balance-of-payments improvement. Whether the improvement was long-lasting depended on a number of factors, chief of which was whether the key sources of inflationary pressure and excess demand had been satisfactorily addressed.¹²

For future reference, it is worth point out that, in some instances, IMF programs even in the 1950s and 1960s often imposed conditions on governmental behavior. In some cases, price controls on state economic enterprises (SEEs) insured that those SEEs would incur losses, which in turn were financed by loans from the Central Bank. In cases where these SEE deficits were important and increasing, it was recognized that there could be no reduction in the pressures of excess demand unless the underlying problem –the controls on prices - were removed. The same sort of conditions applied on

⁹ It was even reported that the London Times carried advertisements offering to overinvoice shipments to countries with exchange control and stating their percentage fee.

¹⁰ The independent ceiling on credit creation apparently was first initiated when IMF staff thought that there were off-budget expenditures being substituted for governmental expenditures.

¹¹ For an assessment of IMF programs as of the late 1970s, before debts to private creditors had become important, see Cline and Weintraub (1981). Even at that time, there was considerable criticism of Fund stabilization programs. For some examples, see Williamson (1983).

¹² See Edwards (1989) and Krueger (1975) for analyses of the paths of inflation, the real exchange rate, and current account balances after devaluations. It was not always true that economic contraction followed a fiscal/monetary tightening. Trade liberalization often permitted an expansion in the rate of economic activity. In Turkey in 1958, for example, real GDP expanded by 5 percent after the deflationary program of August 1958 was put into effect.

occasion when particular subsidies - such as that for Egyptian grain¹³ - were so large that fiscal balance could not be achieved without reducing them. In the Dominican Republic in the early 1980s, the state-owned electric company was incurring a deficit equal to 11 percent of GDP! In that circumstance, it was evident that a major source of the fiscal deficit and inflationary pressure could not be removed until the underlying financial position of the electric company was addressed.

In addition to the circumstances in which changing a domestic policy was essential if the underlying factors that had led to crisis were not immediately to recur, there were cases in which a highly inefficient governmental policy could be replaced with a more rational one: such was the case with the Turkish devaluation of 1958, after which the earlier chaotic trade regime under which everyone queued for unpredictable lengths of time for import licenses was replaced by a system in which designated imports were granted licenses virtually automatically, while other imports were subject to licensing where maxima were set as to the quantity that would be permitted to be imported.

Usually, by the time the IMF was approached, countries were incurring or had incurred considerable debts as they attempted to maintain imports and economic growth in the face of an increasingly overvalued exchange rate and worsening balance of payments position. And, as already mentioned, imports had sometimes been greatly suppressed prior to the inauguration of the IMF program. For either or both of these reasons, governments typically sought debt-rescheduling and IMF financing. Debt rescheduling spread out the overhang of debt to a more feasible repayment schedule. Typically, official debt (which was often the major portion of long-term financing) was rescheduled through a meeting of official creditors organized by the IMF but de jure carried out under the auspices

¹³ In the case of Egyptian grains, these were sold so cheaply in the domestic market that farmers found it profitable to feed bread to their chickens. IMF insistence on their reduction was followed by street riots which led to a

of the French Treasury, and known as the Paris Club. Private debts - usually short term - were rescheduled at a meeting of private creditors usually held in London, and known as the London Club.

Often, countries' import flows had been severely restricted or reduced immediately preceding the crisis, while foreign exchange earnings had fallen sharply. In order to "restart" the economy, it was not sufficient to reschedule debt: new money was needed, and IMF financing was extended.¹⁴ In many cases, IMF financing was supplemented by official credits from the World Bank and bilateral donors. This financing, at a minimum, enabled an inflow of imports which itself was deflationary and often also permitted a reduction in the restrictiveness of the QR regime for imports.

The mechanism by which the IMF program was adopted was straightforward. Once it was deemed that a proposed program was satisfactory, the head of government would write a "Letter of Intent" (LOI) to the Managing Director of the IMF, requesting IMF financing, and laying forth the plans as to the key macroeconomic indicators. Almost always, it was agreed that there would be a change in the nominal exchange rate, or in the exchange rate regime, as part of the program. Likewise, ceilings on fiscal deficits and domestic credit were almost always included. Proposed changes in other key parameters (such as the subsidy rate for Egyptian grain or pricing of Dominican electricity) were also spelled out.

reimposition of the grain subsidies.

¹⁴ Under the Articles of Agreement of the IMF, countries are entitled to draw down a certain amount from the IMF automatically. The more they have drawn down, the stricter are the criteria for drawing down further tranches. In most instances, countries embarking upon stabilization programs had already drawn down a considerable amount, and were seeking higher tranches of lending. The Fund did not provide all financing at once; stabilization programs were usually for two years, and a typical program set six-month targets. At the end of each six-month period, Fund staff reviewed performance under the program, and a next tranche was released when performance was deemed adequate. Evaluating performance was in some regards problematic: when countries fell short of some targets, issues arose as to whether the shortfall was the result of circumstances unforeseen at the time of the program negotiation and whether the shortfall was serious enough to warrant suspension of the program. There were frequent program suspensions.

In some cases, the program had already been adopted in the borrowing country. This was the case in Turkey in 1980, for example, when the domestic authorities undertook sweeping reforms (which went far beyond what the Fund would have required in order to extend financial support) and then approached the Fund for a loan. In other cases, the program was devised jointly by Fund staff and government officials.¹⁵ Often, this was because policy makers in the would-be borrower were reluctant to alter policies; however, in the absence of any alteration, it was clear that Fund support would do no more than provide temporary breathing space prior to which time a “tranch” of funds were released (once a country had already used the resources to which its access was automatic) prior to the onset of a similar crisis. And it is self-evident that it would do a disservice to a country to lend in support of a futile program: the outcome would be a renewed crisis at a later date, with more debt having accumulated because of the first program.

The “joint” determination of the program was really an outcome of a negotiating effort between Fund officials and representatives of the government. Devising any stabilization program inevitably entailed judgment. Macroeconomic outcomes are not certain: unforeseen or unpredictable future events (such as the prices of key exportable commodities or the weather), unpredictable (in terms of timing as well as of magnitude) responses of consumers and producers to altered relative prices, serious strikes, and changes in the government, can all affect the speed of response. A “strong” program has a higher probability of success, but even a “weak” program could succeed with good fortune in terms of

¹⁵ It is often forgotten that, in most developing countries especially in the 1950s and 1960s, the pool of available talent in key government ministries was very thin. Quite aside from the lessons of experience and changed economic thinking, one reason why developing countries’ economic policies have been gradually becoming less inchaote over time has been the increased quality and breadth of able civil servants and policy makers.

weather, external terms of trade changes, and appropriate changes in expectations and consumer and producer behavior.¹⁶

Moreover, a “strong” program is likely to entail more short-run adjustment costs.¹⁷ A cut of x percent in the fiscal deficit entails a larger increase in tax receipts or a greater reduction in government expenditures than a smaller percentage cut. Likewise, a larger increase in tariffs for electricity, bus fares, or other governmental services imposes more of a hardship on users than does a smaller increase.

Hence, there is reason to adopt no stronger a program than is deemed warranted in order to stabilize the economy and provide a sufficiently high probability that growth can be resumed. But the fact that larger macroeconomic policy changes may impose hardships on particular groups in the economy is often used to oppose any changes at all. Hardships endured after the start of a Fund program are generally blamed on the program, yet without regard to the counter-factual trajectory of economic variables that would have occurred had there been no Fund program and the economy continued its downward spiral. Space does not permit a review of the evidence in this regard, but it is increasingly apparent that the very groups that are alleged to be most harmed by Fund stabilization

¹⁶ It is probably true that consumer and producer responses are weaker and slower in countries where there is a history of past failed attempted stabilization programs. Since that variable is different for each country, to the extent that past history matters, it is clear that there is no “one size fits all” model of how much adjustment in the key variables is warranted. And, since the outcome is in any event probabilistic, a key question concerns the probability of success that IMF and government officials should accept for programs, bearing in mind that “stronger” programs (with larger exchange rate changes and sharper tightening of monetary and fiscal policies) probably bring larger adjustment costs to politically vocal sections of society.

¹⁷ There are two dimensions of “strong” or “weak”. On one hand, there is the magnitude of the fiscal, monetary, exchange rate, and other, adjustments. On the other hand, there is a question as to the period of time during which these adjustments are phased in. There is increasing, but by no means conclusive, evidence that changes in the key macroeconomic variables that are carried out quickly have smaller costs than those that are phased in over a longer time period, for a variety of reasons. First, a rapid change in macroeconomic signals sends a message that policy makers are serious in their determination to restore macroeconomic equilibrium. Second, those sectors of the economy (exportables, in particular) which benefit from reforms are likely to respond more rapidly when the adjustment is made at once than when it is phased in over a period of time. Third, the political opposition faces a higher hurdle in its efforts to oppose and overturn reforms that have already been achieved than it does for those which are merely announced as intended at a future date. The above discussion, therefore, refers to the magnitude of

programs are the groups that are most harmed by the unstable macroeconomic environment (especially inflation) that is generally the alternative.

However, in most instances, it could be expected that Fund programs with any credibility whatsoever would be followed by short-term increases in foreign exchange receipts and reductions in demand for foreign exchange. This is because these programs were usually adopted at a time when speculation against the currency had occurred and, with it, speculative withholding of exports, speculative prepayment of imports, and capital flight through whatever means were available. Thus, in the period immediately following the announcement of a Fund program, the foreign exchange situation could be expected to improve (both because of the speculative turnaround and because of the receipt of Fund lending) and hence the crisis that brought the government to the Fund in the first place had passed and pressures for conforming with the agreed-upon program were therefore much smaller.

For this reason, there were obvious causes for concern that countries, once having received financial support and experienced a much-relaxed current account situation, would revert to their fiscal and monetary habits which had brought on the crisis in the first place. To avoid this, the Fund's programs typically imposed "conditionality" and Fund resources were extended only once staff reviewed the key macroeconomic performance indicators agreed upon. Thus, there was not a single domestic credit ceiling: there were ceilings specified for each six month or one-year interval for the life of the program. Fiscal performance was also specified for a sequence of periods.

What this led to was the release of a "tranche" of funding once a Fund program was initially announced, with specified future dates at which further tranches would be released assuming the country

the altered policies, not the speed. It should be noted, however, that some changes - such as in government expenditures or in tax structures - inevitably require time.

met its targets set forth in the Letter of Intent. It often happened that, on review for release of a later tranche, targets would not have been met. As already indicated, anticipating macroeconomic events is not a precise science, and the task of the Fund staff in the review was severalfold: 1) to ascertain the extent to which the failure to meet targets threatened the success of the program; 2) to determine the extent to which failures to meet targets were a result of unanticipated macroeconomic shocks, of misestimation of the economy's response to the program, or, instead, of failure to implement the program; and 3) renegotiate targets for subsequent tranches in light of the findings with respect to 1) and 2).. When the failure to meet targets was the consequence of internal policy, the task was to ascertain whether it was feasible to get the program back to a place where there was a realistic chance of success, or whether to abandon the program.

Evidently, judgment had to be used. The first question - whether the failure to meet targets was of sufficient magnitude and likely duration¹⁸ - is often a judgment call. Even when the cause of failure is clearly external (as for example an unanticipated increase in the price of oil leading to a larger fiscal and current account deficit than in the program), changes in targets may be warranted. Even when the cause of failure is governmental inaction (as happens, for example, when tax reforms are turned down by Parliament), a question is whether sufficient action could and would be taken in the immediate future to get the program back on track.

¹⁸ Sometimes, unanticipated delays in fiscal expenditure reductions or increased tax receipts can occur which would be serious if sustained, but for which there is evidence that the delay was once-and-for-all. And, of course, if the fiscal target is a deficit reduction of, say, 1 percent of GDP over a six-month period, there is a question as to whether 0.99 percent of GDP, 0.9 percent of GDP, 0.8 percent of GDP reduction, or some other number is sufficiently close as to warrant continuing support.

Needless to say, a number of Fund programs have been canceled, and many others have had targets renegotiated.¹⁹ Even in the initial program, it is always a difficult judgment call as to how much fiscal and monetary tightening and how much exchange rate change is the minimum that would have a significant chance for successful outcomes. There is also a question as to the ability and willingness of the relevant government officials in the program country to undertake the agreed-upon policies. Once the program is underway, information on terms of trade, weather, and other variables removes some uncertainties but increase others.

In fact, a large number of Fund programs have not succeeded in long-term reversals of the underlying economic situation.²⁰ Especially in the 1960s and 1970s, a typical experience was the “stop-go” cycle, in which the inauguration of a Fund program marked a period during which the government fiscal deficit and the rate of domestic credit creation were reduced, while the depreciated real exchange rate induced a reduced quantity demanded of imports and an increased flow of exports. These usually resulted in some degree of domestic recession (depending on whether the stimulative effects of import liberalization and greater exports offset the contractionary effects of monetary and fiscal policy). That, in turn, released further goods into export channels and reduced the demand for imports. Simultaneously, reduced domestic demand usually more than offset other effects to result in - at least temporarily - a reduction in the rate of inflation.

But once these effects had been taking hold for a period of time, governments typically began to increase expenditures and ease the monetary situation. As that happened, the real exchange rate began

¹⁹ See Evren Ergin, title, Ph. D. dissertation 1999, Stanford University, for data on the number of cancellations and renegotiations over the years.

²⁰ See Krueger (1978) for an early tabulation of the real exchange rates prevailing 1, 2 and 3 years after devaluations in 10 developing countries in the 1950s, 1960s and early 1970s. See Edwards (1989) for a review of the experience with a much larger number of countries over the 1970s and 1980s.

appreciating²¹ and with it, the incipient current account deficit once again began increasing. Inflationary pressures accelerated, and with it, the boom component of the cycle was once again underway. The boom ended when the next exchange-rate or debt-servicing crisis became too costly, and once again the IMF was approached. This was referred to as developing countries' "stop-go" cycles.

Hence, even before 1973, there were a number of countries that had had multiple IMF programs.²² In some instances, they were almost continuous; in others, a period of time separated the resort to Fund support. In Chile, for example, there were Fund programs in 1956, 1959, and 1965 even prior to the inflation-expansion set off under President Allende and the massive adjustment of the mid-1970s.²³ There were Fund programs in Turkey in 1958, 1970, 1977, prior to the Turkish reforms. During the latter half of the 1970s, there repeated renegotiations and abandonment of programs.

Before turning to the role of financial transactions in these crises and responses, two final points need to be stressed. First, until the 1980s, the majority of developing countries used fixed nominal exchange rate regimes, so that a devaluation was an important part of Stabilization Programs. Inappropriate real exchange rates led to retarded growth or decline in export earnings, increased imports or increasingly restrictive import licensing, deterred capital inflows, and encouraged various forms of illegal transactions to enable capital flight. By the 1970s, some of these costs were being recognized and a few developing countries began experimenting with alternative exchange rate regimes. A few countries permitted their exchange rate to float during the crisis or in a period immediately

²¹ The index of dollar prices of tradable goods was virtually constant over the period from 1952 to 1969. As a consequence, any country with even a 5 percent rate of domestic inflation at a fixed exchange rate experienced real appreciation of its currency. Many developing countries had average inflation rates well in excess of that number, although the average rate of inflation across countries rose markedly after 1973.

²² It is sometimes argued that Finance Ministers and other economic policy makers know that the IMF will support a program, and that they therefore accept more risk than they would in the absence of the IMF. However, there is ample

afterwards, prior to fixing a new nominal exchange rate. Some others, most notably Colombia and Brazil, began using a crawling peg exchange rate regime, under which the nominal exchange rate was altered at relatively frequent intervals according to a formula under which the adjustment was sufficient to compensate between the rate of inflation in the country in question and the rate in its major trading partners.

The second point is that, while exchange controls certainly restricted the free flow of capital, and private capital flows were relatively small contrasted with official flows or magnitudes in the 1990s, businesses and individuals found a large number of ways to evade exchange controls, and capital flight was often the trigger for a balance-of-payments crisis. The number of ways that could be used to evade exchange controls was truly remarkable: Chilean “imports” of international air travel in the early 1970s were enormous, as the Chilean inflation had made the domestic price of tickets much cheaper than in the rest of the world: many foreigners flew to Chile or got contacts there to buy their plane tickets for them; when the Indian authorities finally devalued in 1966, the recorded value of exports fell - it turned out that there had been export subsidies prior to devaluation, and ships had left port filled with rocks in order to collect the subsidies, dumped the rocks offshore, and returned to receive further subsidies. Capital flight may be easier and more sensitive to small changes in the 1990s than it was in earlier decades, but it is not new.

2. Financial Crises.

There have been a number of episodes of financial crisis with minimal balance of payments involvement over the years. The United States had many such crises in the nineteenth century, a major

evidence that economic policy officials, and especially central bankers, who are in office at time of crisis quickly lose their jobs. See Cooper (1971).

motive for establishing the Federal Reserve System. Sweden had a major financial crisis in 1992, which was again strictly national (the overnight interest rate rose to over 400 percent at the peak of the crisis). And, of course, Japan's difficulties in the 1990s have had a weak banking system as a major underlying factor. Even the American savings and loan problem of the early 1980s represented a financial crisis, although it was relatively small scale contrasted with many others.²⁴

Since it has primarily been the banks that have been involved in the twin crises of the 1990s, I shall speak of banks as if they were the only important financial institution. Clearly, they are not, but since they are central and were major for the crises of concern here, it will simplify the exposition to refer to the "banks" rather than to "financial sector institutions".

The business of financial intermediation is important for development and economic growth, as intermediation enables resources available for investment by savers to be allocated to their best uses. By its nature, finding those best uses requires a skilled assessment of the likely future outcome of any given venture. That outcome is determined by several things: 1) the ability of the borrower; 2) the prospects that the proposed venture is one which is technically feasible at a cost such that there will be sufficient demand in the market to make it pay; and 3) that the external environment does not change in ways which negatively impact the venture. All three of these components are better judged by trained professionals than others, but each of them is nonetheless subject to uncertainty.

Even the best of bank lending officers does not have a perfect record of forecasting which would-be borrowers will be successful and enabled to repay their loans. In some instances, the debtor's plans simply do not work; in others, unforeseen circumstances (a deep recession, changing consumer

²³ See Behrman (1976).

tastes, development by a competitor of a superior substitute) can lead to the failure of a venture to yield a sufficient cash flow to enable debt servicing.

All banks have, and should have,²⁵ some NPLs and reserves against NPLs. Moreover, since banks charge a higher interest rate on riskier loans, mechanisms must be devised to provide incentives and an environment in which bankers manage risk appropriately. If, for example, the owner of a bank has none of his own capital invested in it, he has nothing to lose if risky loans fail, and will therefore have an incentive to have too risky a portfolio. It is for this reason that capital adequacy requirements are a part of reasonable banking regulation.

When the fraction of NPLs (recorded or not) increases, banks must charge higher interest rates on the rest of their portfolio to cover their costs and be profitable than would be the case with a smaller fraction of NPLs. In the extreme case when there are no performing loans, a bank's capacities to lend are entirely destroyed.

Because of this, a bank which experiences above-average difficulty with its loan portfolio is highly vulnerable, as potential "sound" borrowers will be able to borrow at lower cost from other banks, leaving only "riskier" borrowers approaching the troubled bank. As this happens, the fraction of NPLs is likely to rise still further.

When a number of banks experience an increasing fraction of NPLs simultaneously, the failure of any one or several of them results in losses to the depositors and shareholders. Those losses, in turn, weaken their asset position, and can impair the ability of some of that group to service their obligations.

²⁴ It is not clear whether the savings and loan problem would have remained "small-scale" if it had not been addressed reasonably quickly. One of the characteristics of unaddressed weak financial institutions is that there is a tendency for problems to spread.

²⁵ If a bank had no nonperforming loans (NPLs) on its books, it would either have been far too conservative in its lending policies or it would be failing to write down bad loans.

As that happens, there is further weakening of the balance sheets. At some point, depositors recognize the danger to the banks, and begin attempting to withdraw their funds, thus leading to the banking crisis. If banks are forced to refuse repayment, those depositors in turn become further handicapped in servicing their obligations, and, in addition, panic is likely to ensue.

When the banking system is so weak (i.e., has such a high fraction of NPLs in its portfolio) or is indeed under attack by depositors who have lost confidence in it, there are major risks in failure of the government to act. In particular, as individual financial institutions become unable to meet the demands for withdrawals, the liquidity of depositors falls, they fall behind or further behind on their debt-servicing obligations, and a downward spiral can occur in the absence of action.

To restore the banking system to economic health requires a number of measures. A first is to restore the banks' balance sheets. That may entail removing the bad paper from the banks, or it may entail forcing some healthy banks to consolidate with some that are impaired, or it may involve the government acquiring the NPLs from the banks' portfolios in exchange for other assets.²⁶ Achieving that is difficult for a number of reasons: 1) resources must be raised, usually from taxpayers, to "bail out" the banks, which is inherently unpopular; 2) major questions arise and must be addressed regarding the valuation to be placed on NPLs; 3) without careful attention, borrowers who could repay a fraction, but not all, of their debt will have no incentives to repay at all and hence the fraction of NPLs is likely to rise.

²⁶ As will be seen below, in Indonesia, the government bought up the bad paper in the banking system, giving the banks nonnegotiable treasury bills in exchange for these NPLs. Since nonnegotiable bills cannot be lent, there was little new credit available in the Indonesian banking system. That being the case, even borrowers who could have serviced their bank debts ceased doing so, knowing that if they repaid their loans, they would not receive new credits. This is one major reason why the recovery of the Indonesian economy is so slow.

Hence, “restoring banks’ portfolios” is not a single activity. It requires valuation of the individual items in banks’ portfolios, itself a lengthy process, as well as the development of arrangements for partially-creditworthy borrowers to refinance their obligations. Further, it requires the development of incentives for banks to change their pattern of behavior, usually by raising capital adequacy standards for banks. But this latter is tricky, especially at a time of financial crisis, when there are few potential domestic lenders.²⁷ And, if foreign banks - that do have the equity - are permitted entry before the domestic banking system is restored to health, the fact that the new entrants are not carrying a significant fraction of NPLs on their books means that they can lend at a lower rate than the domestic banks to achieve the same profitability. If instead governments attempt to have healthy banks absorb less healthy ones, they must also insure equitable treatment for shareholders of the healthy banks, and insure that the newly merged banks are financially sound.

But a government that undertook these actions and did nothing else would be failing to take any measures to prevent a recurrence of a banking crisis. If, for example, the weakness of the banking system came about because banks accepted too much risk, there is little point in restoring the banks’ balance sheets without attempting to reduce the probability that they will once again develop an overly-risky portfolio.²⁸ Hence, the need for strengthening capital adequacy requirements and also, usually, for strengthening prudential supervision.

²⁷ Failure to achieve capital adequacy appears to have been a significant contributor to the difficulties the Mexican government faced over the refinancing of the banks. The private owners of banks, it is said, had to a considerable degree acquired their funds to purchase their banks by borrowing from each other! So while there were individual “owners” of banks, these “owners” were in fact in debt to other banks and had little to lose if their banks went bankrupt.

²⁸ There is considerable evidence that the banks were extending credit to risky endeavors in the years leading up to the Asian financial crises and in Mexico prior to the 1994 crisis. Rates of increase of domestic credit, and the increment of domestic as a percentage of GDP were very high - going to over 20 percent annually in Indonesia (contrasted with domestic credit expansion of less than 3 percent of GDP per year in industrialized countries).

Strengthening prudential supervision requires both changes in the regulatory framework and improved capabilities of the regulatory authorities. While changing the regulatory framework may meet political opposition (on behalf of those benefiting from the prior status of the banks), it is relatively simple to accomplish. However, strengthening prudential supervision requires more resources in the regulatory offices, and those resources include trained bank examiners. Increasing the pool of qualified individuals is usually a drawn-out process.

Relating these considerations to developing countries, and to the financial crises of the 1990s, requires a step back to consider the role of banks in those countries. The importance of banks relative to the entire financial intermediation industry in developing countries is much greater than it is in more advanced countries. At very early stages of development, banks are virtually the only source of finance for enterprises with profitable investments they wish to pursue.²⁹ At that stage, most developing countries controlled the banks, imposing a ceiling both on the lending rate and on the deposit rate well below that that would have prevailed in a well-functioning financial market. For developing countries with appropriate policies, there were many profitable investment opportunities and consequent large excess demand for loans at the regulated rates. Governments typically oversaw credit rationing, requiring banks to give priority to particular activities at the expense of others.³⁰ For example, in Korea in the early years after opening up the economy and encouraging exports, banks were instructed to lend

²⁹ Almost by definition, the citizens of a poor country at the early stages of development have accumulated very little equity, and the ratio of bank loans outstanding to the value of capital stock, especially in the business sector, is very high. As development proceeds, that ratio can be expected to decline, but for countries which began rapid development within the past several decades, it is still well below that in industrial countries' markets.

³⁰ In the 1960s, for example, the government of Korea regulated interest rates and directed credit allocations. The estimated real rate of interest on Korea Development Bank Loans in the period from 1962 to 1966, for example, ranged from minus 0.8 percent to minus 26 percent. During the rest of the decade, the real rate of interest was positive, but never exceeded 6.1 percent. By contrast, estimated real rates of return on investment ranged from 20 to 35 percent. The curb, or informal, market rate of interest for those seeking additional funding was well over 40 percent throughout the decade, while the nominal rate of interest on bank lending never reached 30 percent. See Hong (1981).

to exporters at preferential interest rates.³¹ In other countries, credit to small farmers, to small businesses, or to other favored groups has been rationed at below-market interest rates. In some instances, all of those eligible in a particular category - such as Korean exporters - received preferential credit terms. In other instances, however, preferential credit went to cronies or to politically influential individuals or groups.

When credit rationing prevails, the task of bank lending officers is simplified. In circumstances such as those that prevailed in Korea in the 1960s, almost any investment was bound to have a payoff in excess of the bank lending rate: concerns with the creditworthiness of individual borrowers were very few, as the spectacular rate of economic growth (13 percent annual average) insured that almost anything would be profitable. The need for prudential supervision is much weaker than when there are competitive banking systems and market determined lending practices, as banks under credit rationing are not really competing with each other, but in effect have a governmentally-imposed monopoly. In those circumstances, they naturally choose to lend to the “safest” borrowers who will in effect be receiving a subsidy when they get loans at below-market interest rates.

When a financial crisis occurs, the age-old prescription is to ease monetary policy generally and then, for the Central Bank to follow the advice of Bagehot: lend freely at high interest rates to borrowers with good collateral. The point of this policy prescription is that healthy banks (or other financial institutions) which are illiquid because of the financial crisis need to be sorted out from those which are unhealthy and which are (and would be even in the absence of crisis) insolvent. Simultaneously, a relatively easy money policy reduces the debt-servicing burden for borrowers, so that at the margin

³¹ It is important to note that all exporters were entitled to preferential credit, which was allocated according to formula based only on export performance. There was no commodity-specific differentiation among exports.

there are fewer NPLs. Indeed, a quick, but not necessarily desirable, way out of a financial crisis would be to inflate, especially if most loans have been made at fixed nominal interest rates. Inflation would ease the debt-servicing burden, although its other effects can have negative consequences and outweigh the benefits of reduced debt-servicing obligations.

3. Twin Crises

An economy afflicted with either a balance-of-payments crisis or a financial crisis presents the policy maker with serious challenges. To confront a balance-of-payments crisis, the appropriate policy responses entail an exchange rate change, tightening of monetary policy, and tightened fiscal policy. These measures, in turn, may require other supporting policy alterations. To stem a financial crisis, by contrast, entails loosening of monetary policy, maintenance (or even appreciation) of the nominal exchange rate, and financial restructuring.

Policies to Meet a Balance-of-Payments Crisis.

1. Exchange Rate Change. An exchange rate change is necessary once foreign exchange reserves are being depleted in circumstances where the prevailing real exchange rate is unrealistic. As already seen, when policy makers have chosen a fixed nominal exchange rate regime³² and inflation rates have exceeded those in the rest of the world, the real appreciation of the currency gives speculators a one-sided bet: they can be reasonably confident that the currency will not appreciate in nominal terms so they cannot lose (except for any foregone interest on holding foreign exchange relative to domestic currency), and they will gain in the event that there is a devaluation. In these circumstances,

³² A crawling peg regime was also susceptible to speculative pressures when circumstances should have led to a change in the real exchange rate. Such was the case in Brazil on several occasions when Brazil had a crawling peg exchange-rate policy. These exchange rate changes were referred to as “maxi-devaluations” to distinguish them from the ongoing adjustments to maintain purchasing power parity.

once capital outflows start increasing, there comes a point where only an exchange-rate change of sufficient magnitude can deter further outflows.

The policy maker can choose to let the rate float, or to announce and support a new, but more depreciated, fixed exchange rate. Three points need to be noted. A first one is that it is almost always domestic residents (who are closer to the scene and thus better informed) who are first to attempt to get out of local currency. There are many ways for domestic residents to move into foreign currency even under degrees of capital inconvertibility: they can delay repatriating receipts for exports (or delay exporting); they can accelerate imports (including building up inventories) and make payments promptly; and of course they can use financial instruments to achieve the same objectives to the extent permitted by the government. Thus, it is not only the failure of foreign creditors to roll over loans or extend new financing that can place pressure on the foreign exchange rate; much of the domestic money supply can also do so.

Second, an exchange rate alteration may be inadequate to calm the markets. Indeed, there are numerous instances in which the announcement of a new exchange rate has not reduced pressures: this happened in Mexico after the initial devaluation in December 1994.³³ Even a devalued exchange rate may not be deemed “appropriate” by market participants. For that reason, many policy makers have chosen to let their exchange rate float, at least in the immediate aftermath of a currency crisis. In that way, speculators face a two-way bet, and the exchange rate is market determined.³⁴ When foreign exchange reserves are minimal, and no additional resources are available from other sources, there is no option but to float the exchange rate.

³³ For a chronology of events immediately prior to, during, and after the crisis, see IMF (1995), Pp. 53-79..

Third, while it is impossible to assert that there could never be a foreign exchange crisis under a floating exchange rate system, the probability of such a crisis is considerably reduced relative to that incurred under a fixed exchange rate when domestic monetary and fiscal policy are not targeted to the dictates of maintaining that rate.³⁴ And, as will be argued shortly, a regime without or with small foreign-currency denominated unhedged debts (as would presumably happen under a floating exchange rate) would be considerably less vulnerable to a twin crisis.

2. Tightening Monetary Policy. When people are moving out of domestic currency into foreign currency, it is because they are expecting a higher (risk-adjusted) return on holding foreign exchange than on holding domestic currency. As domestic interest rates rise, the cost of moving into foreign currency rises. Indeed, when the interest rate is high enough and the time horizon in which devaluation might occur is long enough, the costs to investors of holding lower-yielding foreign assets rather than domestic assets becomes higher and higher. Hence, a higher domestic interest rate deters - at least at the margin - investors from moving out of assets denominated in domestic currency into foreign currency.

Thus, the conventional prescription for a balance of payments crisis is to tighten monetary policy, in order to make holding of domestic assets more attractive. This must, of course be part of a package including an exchange rate change, because if an exchange rate change is thought to be

³⁴ There is another advantage to floating the exchange rate: during the period in which a fixed exchange rate is defended, the foreign exchange authority (usually the Central Bank) can incur large losses in an unsuccessful defense. Floating the rate guarantees that there will not be large Central Bank losses.

³⁵ The crisis would manifest itself differently, however: the government in a country with large debts denominated in foreign currency might find itself unwilling or unable to raise sufficient tax revenue to purchase foreign exchange in the market, thereby triggering heightened inflationary pressures in its efforts to repay debt. And the debt-servicing burden might be sufficiently large that a depreciating exchange rate resulted in a larger fiscal deficit, which in turn would lead to a higher rate of inflation. The need for macroeconomic stabilization would be every bit as great as in the crises of the 1990s, but it is likely that the magnitude of the debt-servicing obligations, relative to GDP and exports, would have to be considerably larger than it was in the countries experiencing twin crises in the 1990s.

imminent, there is no realistic possibility of attracting foreign funds. Even if the expected devaluation were only 10 percent and were anticipated with a high probability to occur within a week, that would require a rate of interest of over 50,000 percent per annum less the return on the foreign asset to equate the expected returns and hence leave investors indifferent between domestic and foreign assets. Obviously, such a rate would bring all domestic transactions to a virtual halt.³⁶

3. Adjusting Fiscal Policy. In order to avoid accelerating and finally hyperinflation, of course, fiscal deficits have to be held under control. In many developing countries, these deficits are large enough that the monetary authorities are virtually forced to buy up new issues of government debt and maintain relatively easy monetary policy in order that the burden of the domestic debt-service obligations not become so large that that becomes destabilizing. Hence, tightening fiscal policy so that government domestic debt will not increase - or at least not by more than can be financed - is also a necessary part of any stabilization program.³⁷

It should be noted that the higher the ratio of government domestic debt to GDP, the more costly it is to the government to have increased interest rates. When interest rates rise by 10 percentage points or more, the increased financing needs of a government with outstanding debt equal to 50 percent of GDP are equivalent to 5 percent or more of GDP. Raising such a large sum without triggering inflation is exceptionally difficult. Hence, the degree to which monetary policy can be tightened is partly a function of the relative size of government debt. For that reason, the increase in domestic interest rates

³⁶ In the 1950s and the 1960s when Chile confronted a balance of payments crisis, the authorities used to impose a 10,000 percent “guarantee deposit requirement”. This was the amount of money, expressed as a percentage of the import c.i.f. price, that the would-be importer had to deposit, interest-free (in the context of a 3-digit annual rate of inflation) at the time of placing his order for foreign goods. The deposit would be returned after the goods had cleared customs. Since the lag between order and delivery in Chile was typically six months or longer, this was equivalent to a tax of 25 times the import cost of the good. Not surprisingly, imports ceased when the guarantee deposit requirement was imposed.

automatically increases the prospective fiscal deficit because interest carrying costs of the debt will increase. Since it is also likely that economic activity will slow, tax collections are likely to be somewhat below prior estimates, while fiscal expenditures may - unless adjusted - be higher. As a result, some fiscal tightening is called for, even in the event that the fiscal situation going into the crisis was reasonably balanced.

Thus, the ideal combination of exchange-rate adjustment, fiscal curtailment and monetary tightening depends heavily on the relative magnitudes of foreign-currency-denominated and domestic government debt at the time of crisis. A country with little internal and much external debt would find the increased fiscal cost lower with relatively tighter monetary policy and less exchange rate adjustment; a country with a large domestic debt and few foreign-currency-denominated obligations would find a package with a larger exchange rate adjustment and a smaller degree of monetary tightening to raise debt-servicing charges by a smaller amount.³⁸

Policies to Meet a Financial Crisis. Just as addressing a balance-of-payments crisis requires restoration of the belief that the exchange rate is sustainable, or at least that the odds are even as to whether it will appreciate or depreciate, a financial crisis requires restoration of confidence in the financial system. But there is no “quick fix”, parallel to floating or altering the exchange rate, which can achieve that result.

The measures mentioned in Section 1 - getting the bad paper out of the banking system while restructuring the debt of those who can pay part of their obligations, recapitalizing the banks, and

³⁷ It is also necessary because it is essential that expectations be altered. In the absence of fiscal tightening, the credibility of the stabilization program is at risk.

³⁸ A strong case can be made that expansion of domestic credit under a fixed exchange rate regime is equivalent to increasing the contingent liabilities of the government, since the government is in fact implicitly guaranteeing that it will buy domestic currency at a specified rate.

providing incentives to avoid a repeat of the financial system's difficulties all take time. Moreover, each part of these activities is contentious. Often, corporate restructuring to reduce the burden of debt is a necessary first step, entailing for example the exchange of debt of the companies for equity. But the more favorable the terms are to the companies, the less favorable they are to the banks, and vice versa. Hence, it usually requires relatively strong oversight on the part of regulators or officials to push both parties to a resolution of this issue.

And the determination of the value of the banks' assets is itself problematic. This is especially so since it is always tempting to assume that debtors will be able to increase their debt-servicing once economic activity resumes, although experience suggests that economic activity does not fully resume until financial restructuring is achieved or at least well advanced.

But even when corporates (and the finances of other debtors) are restructured, there remains the problem of restoring the banks' balance sheets. This requires valuations of outstanding loans, and appropriate classification as to their risk category. Moreover, once these valuations – which are contentious – take place, there remains the problem of finding new owners, or at least new capital, for the banks. If an effort is made to merge weak banks with stronger ones, the terms on which this is done are also problematic.

At the point when these activities are advancing, which necessarily takes time, there is also a question as to how the losses will be financed. Governments can buy the bad paper from the banks' portfolios, but that shifts the burden to the taxpayers. And, if they buy the paper from the banks, the banks have little incentive to collect even what they can from their debtors. Since these are key issues in the recovery of some of the Asian countries, these issues are discussed in more concrete form in Section 4 below.

Interaction of Balance of Payments and Financial Crises. Enough has been said to give an indication of the difficulties entailed when either a balance-of-payments or a financial crisis takes place. Policy makers must take immediate actions in circumstances where the magnitudes of response of the affected parties are not predictable, and where expectations are clearly of great importance

But when there is a weak banking system and a balance-of-payments crisis occurs, the latter can trigger a financial crisis. There are several mechanisms by which this can happen:

1. When banks have been borrowing abroad at a fixed nominal exchange rate to increase their borrowing base, a devaluation necessarily increases the liability side of their balance sheet and leaves the asset side virtually unaffected. Hence, the banks' balance sheets deteriorate.
2. If borrowers from banks have either borrowed from the domestic banking system but couched their liabilities in terms of foreign exchange, or they have themselves borrowed offshore in addition to their borrowing from the banks, a devaluation automatically results in a deteriorating of the borrowers' balance sheets. For firms that are engaged in exporting and importing, this effect is likely to be fairly small because export proceeds or domestic currency proceeds from imports rise *pari passu* with the devaluation. But for firms whose costs are determined in the international market but whose receipts are determined in local currency, income and balance sheets are likely to deteriorate. If the banking system was weak prior to the crisis (as was true in most of the Asian crisis countries), the additional "hits" they take as a result of the devaluation result in further deterioration of their balance sheets.
3. When the monetary authority responds to a balance of payments crisis by tightening money with a consequent increase in interest rates, debt-servicing costs to individual borrowers

necessarily increase. Again, marginal borrowers are likely to be tipped into NPL status as interest carrying costs on their outstanding indebtedness increases.

4. Insofar as fiscal and monetary tightening result in a (necessary) slackening in the pace of economic activity, that too impacts on borrowers' incomes and cash flows, and hence impairs their ability to service their debts.

All of these effects weaken the banking system further. How important each of them is varies from country to country. In Mexico, it is thought that the increase in interest rates was the major factor that added significantly to the 8 percent of bank loans outstanding that were already nonperforming before the crisis.³⁹ In Korea, the banks' losses on their holdings of Russian and other securities combined with the inability of domestic firms to service debts to weaken the banking system.

The difficulty for policy makers is that when the banking system is very fragile or already in crisis, any actions that are taken to mitigate the balance-of-payments crisis are likely to weaken the banks still further, while any measures taken to shore up the domestic banking system (such as easing monetary conditions) will make the balance of payments crisis worse. Hence, policy makers both in the country and at the IMF are treading a fine line: too much reaction to the balance of payments crisis can result in a financial crisis if there is not one already, or make it worse if there is one. Conversely, too much attention to the financial situation when the country is already vulnerable to external attack can invite that attack and destabilize the foreign exchange account.

³⁹ See IMF (1995) P. 62. The IMF reports that about 8.5 percent of loans outstanding were past due before the crisis. Foreign currency loans were about a third of the loans extended by Mexican banks, but many of them were to companies whose income was peso-denominated. As the IMF reports, "The sharp rise in interest rates also affected the peso-loan portfolio...When interest rates reached levels as high as 80 percent in the first quarter of 1995, payments ceased on a large proportion of loans of all types. Banks generally chose to restructure these loans, or simply to suspend interest payments, rather than to be forced to recognize them as high-risk assets and write off a

These trade-offs and difficulties can be seen in the individual countries that are discussed in the next section. Here, it suffices to note two other points. First, countries with a sound banking system, such as Brazil in early 1998, have a much easier time of adjusting and resuming economic growth. In the Brazilian case, there was very little NPL-paper in the banking system prior to the devaluation, and Brazilian banks had little or no foreign-currency debt, while their clients' debts were mostly denominated in domestic currency. Second, there is clearly a time-path for responses to crises. While it is straightforward (and essential) to allow the exchange rate to depreciate immediately and to tighten money (at least to some extent depending on the government's balance sheet), there are long time lags involved in financial restructuring. Fortunately, the job does not need to be done perfectly in order for economic activity to reverse its downward course, and there appears to be room for fine tuning after the initial restructuring. Nonetheless what does seem evident is that countries do not achieve a rebound and reversal of their difficulties after a twin crisis until such time as they are able to provide sufficient incentives for the banks to resume lending activity. When that does not happen, as for example in Japan, the crisis can be converted into a long period of sluggish or negligible growth.

4. IMF Stabilization Programs in Action

As the above discussion indicates, the number of factors that contribute to the onset of a crisis is large, and each crisis is different in some regards from others. It is useful, therefore, to provide some case studies of IMF stabilization programs. Each twin crisis of the 1990s has been complex, and books could be and no doubt will be written about each of them. In what follows, emphasis is placed on those

certain amount of their already declining capital by making provisions. Nevertheless, the deterioration in asset quality forced the risk-weighted capital ratios of several Mexican banks below the 8 percent minimum." (P. 62-3).

factors which seem to warrant most consideration when evaluating IMF programs, and linkages between domestic economies and the international financial systems.

A first case to be examined is Korea, which is perhaps the best example for intensive analysis. Thereafter, features differentiating the financial crisis in Indonesia are discussed.

The Korean Crisis.⁴⁰

Background. As is well known, Korea was one of the poorest countries in the world as of the late 1950s, and was then widely regarded as a country without serious growth prospects. After economic policy reforms began in the early 1960s, Korea began growing at sustained rates previously unheard of in world history,⁴¹ averaging 13 per cent per annum growth of real GDP in the decade starting 1963. High growth rates continued into the 1990s, and Korea's real per capita income in the mid-1990s was more than 8 times what it had been in the early 1960s.

In general, economic liberalization proceeded throughout the first 35 years of Korea's rapid growth. In 1960, the country had had the usual developing-country mix of an overvalued exchange rate supported by quantitative restrictions on imports (and a black market in foreign exchange), consequent high walls of protection for domestic manufacturers, price controls on many key commodities, credit rationing, a large fiscal deficit, one of the highest rates of inflation in the world, and a huge (averaging around 10 percent of GDP over the period 1953-58) current account deficit financed largely by foreign

⁴⁰ The IMF documents cited in this section may be found at <http://www.imf.org/external/country/KOR/index.htm>.

⁴¹ Taiwan's rate of economic growth was equally rapid. There is truth to the frequently-made assertion that policy makers in each country watched the evolution of the other's economy and policies, and that competition spurred each on. Prior to the crisis in the late 1990s, most observers would have claimed that the major difference between the Taiwanese and Korean economies was the relatively small scale of Taiwanese enterprises contrasted with the large share of the Korean chaebol in the Korean economy. But there were other differences: perhaps because of greater strategic insecurity, the Taiwanese held very large foreign exchange reserves in relation to the size of their trade or their economy; the Taiwanese dollar showed no tendency for real appreciation; and Taiwan's current account had been consistently in surplus. The Taiwanese financial system also appears to have been considerably sounder than that of Korea, and the rate of expansion of domestic credit in the mid 1990s was much smaller than that in Korea.

aid inflows.⁴² Indeed, when the government of Syngman Rhee was overthrown in 1960, one of the main sources of dissatisfaction was reported to be corruption.

First steps included moving to a more realistic (and constant real) exchange rate for exports, and relaxation of restrictions on importing for exporters. Thereafter, imports were gradually liberalized and the exchange rate regime unified by the early 1970s. In 1964, a major fiscal and tax reform brought the government finances into a much-improved balance, and the rate of inflation fell.⁴³ Price controls were gradually removed, discrimination and price controls on key agricultural commodities were replaced with a protective regime for agriculture, and nominal interest rates were permitted to move to levels that at least made the real interest rate positive. However, credit rationing continued as it was below a market-clearing rate.⁴⁴

When economic policy reform began, Korea's exports were only about 3 percent of GDP, while imports were about 13 percent. Policy makers therefore began focusing on measures to increase exports. They did so by encouraging all exports uniformly, but nonetheless had something that might be regarded as close to an "export theory of value". Any firm that could export was rewarded in proportion to the foreign exchange receipts from exporting. And many of the firms that were initially successful were chaebol. Because they were successful, they received new loans as their exports grew and as they expanded into new exporting activities.⁴⁵

⁴² See Krueger (1979) and Frank, Kim and Westphal (1975) for an account of the early period of Korea's rapid development.

⁴³ The oil price increase of 1973 triggered a large increase in the rate of inflation, but the country rapidly returned to single-digit inflation. By the mid-1980s, there were even occasions when the domestic price level was falling.

⁴⁴ See Hong (1981).

⁴⁵ Some of these activities were chosen by the chaebol. On occasion, however, the authorities suggested to chaebol owners that they should move into certain lines of production. This attempt to "pick winners" was not always successful; when it reached its height in the heavy and chemical industry (HCI) drive of the mid-1970s, the rate of economic growth and of export expansion slowed substantially and policies were reversed by the late 1970s.

The chaebol were successful exporters and, for the first decade or more of Korean growth, were regarded almost as the ‘heroes’ of Korean development. They were rewarded for export performance. In addition, when the authorities wanted a venture undertaken, they did so with the implicit guarantee of the government that credit, tax exemptions, and other support would be available to make the venture profitable.⁴⁶

The extent to which the Korean economy changed structure is remarkable. Exports and export earnings (the dollar price index of traded goods being stable in the 1960s) grew at over 45 percent annually. Exports as a percentage of GDP rose from 3 percent of GDP in 1960 to 8.5 percent in 1970 to 35.2 percent in 1980; imports also rose, from their 10 percent level in 1960 to 43 percent of GDP in 1980. Hence, the Korean economy was much more open as growth progressed.⁴⁷

In the early years, rationed credit financed a large fraction of new investment, especially in the manufacturing sector. The subsidies implicit in this credit served as a stimulus to industry, and permitted much more rapid expansion than would have been possible had companies had to rely on reinvesting their own profits.⁴⁸ The real rate of return was so high that all the chaebol would happily have borrowed more had they been able to; most of them, as reported by Hong (1981) borrowed additional funds at the

⁴⁶ It is important to underscore that these government “rewards” were there in the context of the export drive. When chaebol could not produce competitive exports, there was little support. Even in the HCI drive - the most industry-specific interventionist phase of Korean policy - the output from HCI industries was to be exported within a specified period. When it became clear that that performance test was not being passed, the entire thrust of policy was reevaluated.

⁴⁷ Some of the increase in imports was of course intermediate goods used in the production of exportables. But the percentage import content of exports remained fairly stable at around 35 percent of the value of exports over the period of rapid growth. From 1960 onwards, exporters were entitled to import virtually anything that they might use in producing exportables with little paperwork; in addition, they were permitted to import a “wastage” allowance which they were free to sell on the domestic market. Thus, the de facto liberalization exceeded that which took place because of removal of QRs and lowering of tariffs. With an average tariff rate in the tariff schedule of around 15 percent in 1970, average tariff collections as a percent of imports were about 6 percent.

⁴⁸ In much of the public discussion of the reliance of firms in crisis countries on borrowing, it seems to be forgotten that, starting from very low levels of income and development, there is very little equity and a large fraction of investment must therefore be financed through other channels.

much-higher curb market rates. That would imply that the lending at controlled interest rates was, at least in the early years, equivalent to an intra-marginal subsidy to the chaebol. Estimates of their rates of return suggest that the chaebol were highly profitable at that time even without subsidies. Indeed, given the huge distortions in the economy that prevailed in the late 1950s, it is likely that in the 1960s, at least, almost any reasonably sensible venture into unskilled labor-intensive exportable production had a high real rate of return.

As already mentioned, by 1964, the borrowing rate from the banks was positive in real terms. Over the following three decades, there were further liberalizations of the financial system as the real interest rate charged for loans rose, although credit was still rationed. At the same time, the real rate of return on investments naturally fell as the very high initial returns obviously could not be sustained. Hence, the implicit subsidy to the borrowers who received credit diminished sharply. When, in 1996 and 1997, gross profits of some of the large enterprises fell sharply, their ability to service their debt was impaired. But, in keeping with tradition, banks began “evergreening” the loans, lending additional funds to the borrowers to enable them to make interest payments. Hence, actual NPLs were building up in the banking system, although it is probable that it was thought that the decline in profits was temporary.

There is another aspect of Korean growth that is important in understanding the background to the crisis. That is, when rapid growth started in the early 1960s, the Korean savings rate was very low - and even negative by some estimates. With more rapid growth, domestic savings began growing rapidly, rising from around 0 percent of GDP⁴⁹ in 1960 to 15 percent of GDP by 1970 and 25 percent of GDP by 1980. But in the early years and until the late 1970s, profitable investment opportunities greatly

exceeded domestic savings. As a result, domestic savings were supplemented by borrowing from abroad, equaling as much as 10 percent of GDP in years during the 1960s.

The Korean government guaranteed loans, and determined the maximum that could be borrowed, allocating borrowing rights among exporting firms. Since the foreign interest rate was well below the domestic interest rate (especially in the curb market) and the real exchange rate fairly stable for exporters, there was intense competition for foreign loans.

As domestic savings rose, the proportionate reliance on foreign resources for supplementing domestic savings to finance investment fell. By the 1980s, the domestic savings rate was in excess of 30 percent, and the current account went into surplus for several years in the mid-1980s.⁵⁰ Beginning at this time, the American government in bilateral trade negotiations began to pressure the Koreans to let the won appreciate in order to reduce the bilateral trade deficit with the U.S..⁵¹ Most Korean economists by the mid 1990s believed that it would be in Korea's best interest to have some real depreciation of the won, but the pressures not to do so prevented it. While the won exchange rate was not fixed, the range within which it fluctuated was relatively narrow: it appreciated from 890 won per dollar at the end of 1985 to 679 won per dollar in 1989, and thereafter gradually depreciated to 808 won per dollar in 1993,

⁴⁹ In 1960, it is estimated that private saving was a positive 3.2 percent of GDP while government saving was a negative 2 percent of GDP. Foreign sources financed 78 percent of investment, which was 10 percent of GDP. See Krueger (1979), Pp. 206-7. In 1960, most foreign resources were foreign aid.

⁵⁰ Korean policy makers viewed the emergence of the current account surplus as a transitory phenomenon explicable by "three blessings": the fall in oil prices in the mid-1980s, the drop in world interest rates (so that debt-servicing costs declined), and the boom in Korea's trading partners - especially Japan. The current account turned positive in 1986, rose to a peak of 8.0 percent of GDP in 1988, and fell to 2.4 percent of GDP in 1989, and turned negative (-0.8 percent) in 1990 and remained negative in the 1-2 percent range until 1997 when the deficit increased to 4.7 percent of GDP.

⁵¹ Korea was running a bilateral surplus with the U.S. and a bilateral deficit with Japan, and policy makers resisted as far as they could these pressures. One response was to ask the American authorities whether they should devalue with respect to the yen while they appreciated with respect to the U.S. dollar!

falling again to 788 won per dollar in 1995. At the end of 1996 it stood at 844 per dollar, and of course depreciated almost 50 percent in 1997.⁵²

Events Prior to the Crisis. Thus, by the mid-1990s, Korea had sustained 35 years of rapid growth. While there had been periods of difficulty - both slowdowns and overheating - Korean policy makers had met their various difficulties successfully. As noted by the OECD, the country had come from being one of the poorest developing countries in 1960 to having a per capita income equal to some OECD countries, with a higher rate of economic growth.⁵³

The late 1980s had witnessed the introduction of a democratic process into Korea. The elected governments chose to further liberalization policies, including especially the financial sector and international capital flows.⁵⁴ In 1992-3 there was a “growth recession”, as the growth rate slowed to just over 5 percent (contrasted with rates over 9 percent in the preceding two years and an average rate of over 8 percent in the preceding decade). One response was to ease monetary policy: domestic credit expanded by over 18 percent in 1994, 14 percent in 1995, and 21 percent in 1996.⁵⁵ Real GDP growth responded, exceeding 8 percent in 1994 and 1995.

But there is ample evidence that, despite this cyclical recovery, the profitability of the chaebol was declining, and that the condition of the banks was deteriorating. Turning first to the chaebol, data for the 30 largest ones indicate that the return on assets, which stood at only 2.0 percent in 1994 and 2.5 percent in 1995, fell further to 0.8 per cent in 1996 and was a negative 0.7 percent in 1997. Return on

⁵² Exchange rates, savings rates, and current account deficit data are all taken from various issues of the IMF's International Financial Statistics unless otherwise noted.

⁵³ For an account of the Korean economy in the mid-1990s reflecting this consensus view, see O.E. C. D. (1994).

⁵⁴ See the O.E.C.D. (1994) description of the five-year financial liberalization plan.

⁵⁵ This rate was not markedly faster, however, than it had been over the entire preceding decade. Hahm and Mishkin (1999, P. 21) reject the notion that liberalization of the capital account was responsible for the increase in domestic credit, but note that it did play a role in permitting the banks to take on greater exposures to foreign exchange risk.

equity fell from 6.9 and 8.7 percent to 2.7 and minus 2.9 percent over those same years, while the rate of growth of operating income was minus 14.4 percent in 1996. (Hahm and Mishkin, P.60).

Even during the cyclical boom years of 1994 and 1995, the financial institutions were borrowing abroad to finance their lending to the corporate sector (especially the chaebols). As a consequence of financial liberalization, 24 finance companies were transformed into merchant banks, which enabled them to enter into foreign exchange transactions. So both the banks and the nonbank financial institutions increased their exposure heavily, and much of the onlending consisted of dollar-denominated obligations. According to Bank of Korea data reported in Hahm and Mishkin (p. 62), foreign currency debt constituted 9.8 percent of total corporate debt in 1992, rising to 11.5 percent in 1996, and 16.4 percent in 1997. But corporate debt itself rose from about 130 percent of GDP in 1991 to 150 percent in 1996 and 175 percent in 1997.

There were other signs that growth was not as solidly-based as it had been. The incremental capital-output ratio, which had stayed around 4 for many years, had risen to 5 (often deemed to be the highest 'sound' number) in 1991 and then rose to 6 and stayed fairly steady at that level until the crisis.

In 1996, the dollar value of exports of goods rose only 4 percent, contrasted with increases of 15 and 32 percent in the preceding two years. This very low rate of increase reflected largely the faltering sales of semiconductors, and the turnaround in the fortunes of Samsung: the terms of trade turned sharply against it, as the unit price of semiconductor chips fell by 70 percent, leading to a drop in Korea's terms of trade of around 20 percent.

External liabilities in foreign currency rose by 32 percent in 1994, 35 percent in 1995, and 37 percent in 1996. Of that total, short term liabilities were 56 percent; these short-term liabilities were 2.79 times foreign exchange reserves at the end of 1996. The ratio of gross external liabilities to GDP

(including the offshore borrowings of Korean banks and the overseas borrowings of their overseas branches) had risen from .20 in 1992 to .31 by the end of 1996.⁵⁶

Hence, a close examination of the data on the Korean economy would have revealed that the economy's 'fundamentals' had deteriorated quite substantially during the 1990s, especially if the short-term impact of the 1994-1995 cyclical recovery was discounted. Macroeconomic fundamentals, however, appeared fairly sound. The fiscal accounts were in balance, and indeed, there had been fiscal surpluses equivalent to a half a percent of GDP or less in each year from 1993 through 1996. The current account deficit had, of course, increased sharply as already noted, from 1.74 percent of GDP in 1995 to 4.42 percent of GDP in 1996. But if the real exchange rate was examined only in the 1990s, it appeared to have remained fairly stable; the inflation rate was less than 5 percent per annum, and the savings rate was well over 30 percent. And, as will be explored in more detail below, the condition of the banks was probably considerably weaker than the official numbers indicated.

The Crisis. A number of events took place early in 1997 that surely eroded confidence. One of the large chaebol, Hanbo, went bankrupt early in the year. Given that it had been widely believed that the large chaebol were "too big to fail", this in and of itself must have resulted in some loss of confidence and a reexamination of Korea's creditworthiness. Moreover, 1997 was an election year, with the Presidential elections set to be held early in December. That the market anticipated difficulties is reflected in the fact that the Korean stock exchange index fell from 981 in April 1996 to 677 by the end of March 1997 and to 471 at the end of October, even before the outbreak of the currency crisis.

However, while the net and gross foreign (and especially short term) liabilities of the banking and financial systems were continuing to increase, there was no visible evidence of crisis until the final

⁵⁶ Data are from Hahm and Mishkin (1999), Table 2.

quarter of the year. The Thai crisis had exploded in June, and the Indonesian crisis had begun during the summer of 1997, but most observers were confident, given Korea's past history, that Korea would not be affected.⁵⁷ Korea's offshore banks were holding paper from Indonesia, Russia, and other countries with dollar liabilities, which would further deteriorate the net foreign asset position, but that was not widely known at the time.

However, capital flight began early in the fourth quarter of the year. In many instances, it was simply a refusal to roll over short term debt. But other factors contributed: Korea's sovereign risk status was downgraded by Standard and Poor's in October; NPLs in the banking system doubled from the end of 1996 to fourth quarter 1997, reaching 7.5 percent of GDP by that time, owing largely to the bankruptcy of six chaebol and the sharp drop in the Korean stock exchange. But, once it became known that reserves were decreasing, others sought to get out of won, and the capital outflow intensified rapidly.⁵⁸ Total reserves less overseas branch deposits and other unusable foreign exchange were \$22.3 billion at the end of October, and had fallen to \$7.3 billion by the end of November.⁵⁹ It is reported that, by the time the IMF was approached, gross reserves were being depleted at a rate so rapid that they would have approached zero within 48 hours. In the program presented to the IMF Board, it was reported that usable reserves had dropped from 22.5 billion on October 31 to \$13 billion on November 21, and \$6 billion on December 2.⁶⁰

⁵⁷ The author was at a conference of Korean economic policy makers in August 1997 and the mood was one of deep gloom. Many of the participants were extremely pessimistic about the chaebol, the state of the financial system, and the potential for reforms of economic policy.

⁵⁸ However, even in November, the Finance Ministry was issuing reassuring statements, and private forecasters were minimizing the likelihood that Korea would approach the IMF. For a representative account, see Financial Times, November 12, 1997, P. 5, John Burton, "Korean Currency Slide Shakes Economy

⁵⁹ Data are from Hahn and Mishkin (1999), Table II.

⁶⁰ Other factors also contributed. A financial reform bill, proposed by a blue ribbon committee, had been turned down by Parliament, and it was not clear whether the government had legally guaranteed the foreign exchange liabilities of

The IMF Program. All three Presidential candidates had declared repeatedly that under no circumstances would they approach the IMF. When the government did approach the IMF, the IMF's problem was complicated by several things: 1) it was not known who the new president would be, and hence with whom the IMF would have to deal on the economics team; 2) there was very little time to put together a program, and both because Korea had been viewed as "sound" until recently and because the candidates had all said they would not approach the Fund, there had been less preliminary work done than was usually the case;⁶¹ 3) the exchange rate was depreciating sharply after the end of October, and when the band was widened to 10 percent on November 19, the rate of depreciation began accelerating rapidly; and 4) as already mentioned, the government was rapidly running out of foreign exchange reserves, and would be forced to default on its obligations within a very short period of time.⁶² The high short-term indebtedness meant that foreigners could get out of won simply by failing to roll over outstanding debt.⁶³

The initial program was negotiated over the period November 26-December 3. As stated in the Memorandum to the Executive Directors as the staff sought approval of the program, "Owing to the critical situation in Korea, and the very short period in which program negotiations had to be completed, it was not possible to fully specify the program. Therefore, emphasis was placed on strong prior actions

the financial institutions. While interest rates had risen by about 200 basis points, the Bank of Korea was nonetheless injecting liquidity into the system which reversed the increase.

⁶¹ The fact that the Thai and Indonesian crises had already occurred no doubt diverted some of the attention that Korea otherwise might have received. At that time, too, it must have been anticipated that there would be a Malaysian program.

⁶² See Boughton (1998).

⁶³ Hahn and Mishkin (1999) point out that "the speculative attack was not in the usual form of direct currency attack to exploit expected depreciation. Due to the tight regulation on currency forwards which should be backed by corresponding current account transactions and the absence of currency futures markets inside Korea at the time, opportunities for direct speculative attack had been much limited. Rather, the drastic depreciation of Korean won was driven by foreign creditors' run on Korean financial institutions and chaebols to collect their loans, and by foreign investors to exist from the Korean stock market." (P. 25)

to demonstrate the government's seriousness to strictly implement its policy commitments." Even as the program was approved in December, the Board was told that it would be reviewed in January 1998 (when, among other things, the new President and economics team would be known).

The initial program set forth as its objectives: "building the conditions for an early return of confidence so as to limit the deceleration of real GDP growth to about 3 percent of GDP in 1998, followed by a recovery towards potential in 1999; containing inflation at or below 5 percent; and building international reserves to more than two months of imports by end-1998."⁶⁴

The staff memorandum stated that there were three pillars to the government's program: the macroeconomic framework;⁶⁵ restructuring and recapitalizing the financial sector; and reducing reliance of corporations and financial institutions on short-term debt.

The 5 percent inflation target looked ambitious in light of the large depreciation of the won (from the mid 800s per dollar to almost 1800 per U.S. dollar at its peak) and the share of traded goods in GDP.⁶⁶ To achieve that objective, the liquidity which had been introduced into the system in prior weeks (in an effort to support the chaebol) was removed, and money market rates were raised sharply. In the words of the staff these rates would "be maintained at a high a level as needed to stabilize markets" (p. 5). Day-to-day monetary policy was to be geared to exchange rate and short-term interest rate movements, while exchange rate policy was to be flexible with intervention "limited to smoothing

⁶⁴ IMF, Korea. "Request for Standby", P. 5. December 3, 1997.

⁶⁵ Much of the controversy surrounding the Korean program centers on whether the program tightened fiscal policy too much. This is discussed below. It should be noted that the Fund staff's introduction of the macroeconomic program indicated that the program would involve "a tighter monetary stance and significant fiscal adjustment". (P. 5).

⁶⁶ As stated in the Request for Standby, "The inflation target reflects a very limited pass-through of the recent depreciation of the won to the aggregate price level...In order to achieve the inflation objective, the government will

The 1998 budget as passed by the government had projected a surplus of about 0.25 percent of GDP. But Fund staff estimated that lower growth and the altered exchange rate would reduce the balance by 0.8 percent of GDP, and that it would require 5.5 percent of GDP to recapitalize the banks to meet the Basle minimum capital standards. It was assumed that these funds would have to be borrowed, and interest costs (0.8 percent of GDP) were therefore also included in the altered budget estimates. These factors would, on Fund estimates, have shifted the fiscal account into deficit to about 1.5 percent of GDP in 1998. As stated by staff, “In order to prevent such a deficit and alleviate the burden on monetary policy in the overall macroeconomic adjustment, fiscal policy will be tightened to achieve at least balance and, preferably, a small surplus.” The program therefore called for fiscal changes approximately offsetting the negative anticipated changes, and thus for maintenance of the fiscal stance as anticipated prior to the crisis, with the 1.5 percent of GDP cuts equally distributed between government expenditures and revenues. The government initially raised some taxes to yield about 0.5 percent of GDP.

The second leg of the program was financial restructuring. As already indicated, NPLs were large and increasing prior to the crisis. The depreciation of the exchange rate increased debt-servicing obligations for chaebol and financial institutions, as did the increase in interest rates that came about with monetary tightening. The details of financial restructuring are intricate enough so that they cannot be delved into here in any detail. Suffice it to say that an exit policy was to be adopted to close down weak financial institutions, recapitalizing the remaining banks (through merger or other means). A deposit guarantee was to be phased out at the end of December 2000 and replaced with deposit insurance for

aim to reduce broad money growth (M3) from an estimated 16.4 percent at end-September to 15.4 percent at end-December 1997, and to a rate consistent with the inflation objective in 1998.” (p. 5-6).

small depositors only. Transparency was to be increased in a variety of ways. Large firms were to be audited by international accounting houses. Supervisory functions were to be reorganized, the Bank of Korea given much greater independence, and so on. Finally, the government undertook to withdraw from any influence over lending decisions, leaving those to the financial institutions.

One important point to note in terms of bank restructuring is that it required a prior, or at least concurrent, restructuring of the chaebols' finances. Given their very high debt-equity ratios⁶⁷ (for one chaebol at the height of the crisis, the debt-equity ratio reached 12:1), financial viability where feasible at all would surely require swaps of debt by the chaebol to the banks, giving the banks equity in return.

The IMF stand-by also called for the Korean government to set a timetable to meet its WTO trade-related commitments to remove restrictive import licensing and "diversification program" (which discriminated against Japanese imports). Equally, the program stipulated further capital account liberalization, including importantly increasing the ceiling on aggregate foreign ownership of Korean shares from 26 to 50 per cent by the end of 1997 and then to 55 percent by the end of 1998. Remaining elements of capital account liberalization, which had already been agreed to with the OECD, were to be accelerated with the new program announced by the end of February 1998. In addition, restrictions on direct foreign borrowing by chaebol were to be eliminated. The first of these measures - permitting increased foreign ownership - encouraged foreign investment, and enabled the possibility of foreign control, of financial institutions, among other things. For bank restructuring, this increased the potential for new capital for recapitalization.

⁶⁷ These high debt-equity ratios were public knowledge. The Financial Times published data on debt-equity ratios for 20 chaebol on August 8, 1997. The highest was Sammi with 33.3 times as much debt as equity; Jinro had 85 times as much debt as equity and Halla 20 times; Hyundai's debt was 4.4 times its equity, and so on. Profits were relatively small as a percentage of assets or sales. In Samsung's case, for example, net profits were 179.5 billion won on sales of

The stand-by then addressed corporate governance and corporate-financial-structure issues, noting that the only scrutiny over chaebol investments, even of large scale, had been by bank managers “whose appointment has traditionally been influenced by the government”. It then anticipated that shareholder and directors’ oversight should improve, especially in conjunction with increased opportunity for foreign purchases of shares. One important element of these changes was to be reform of bankruptcy laws, with governmental agreement that there would in future be no financial support, forced mergers, or tax privileges for individual firms.

The final components of the stand-by were those related to data provision and monitoring, which need not be of concern here. The staff then addressed the issue of the reasons for external support. It first noted that the current account deficit was expected to decline markedly in 1997 to about 3 percent of GDP, and then - with export growth and won depreciation - to about 0.5 percent of GDP in 1998. However, the very high level of short-term debt was seen to be worrisome. As stated in the standby, “It is difficult to estimate with any certainty the likely developments in capital flows..., given the uncertainty surrounding the rolling over of private sector short-term debt and the recent collapse in market confidence.... The working assumption is that, on the basis of the beneficial effects on market confidence of the announced program and the large financing package, the bulk of the short-term debt will be rolled over. Under this scenario, the purpose of the exceptional financing would be largely to reconstitute reserves. For this outcome to materialize, it is critical that the financing package provided is adequately large and the program is perceived to be strong.... It is anticipated that a comprehensive financing package of about \$55 billion will be provided on a multilateral and bilateral basis...”(p. 12).

60 trillion won and total assets of 51 trillion on. Nine of the 20 chaebol listed in the [Financial Times](#) on that day had taken losses.

Aftermath of the Crisis. For at least two weeks after the announcement of the Fund program, questions remained as to whether the downward slide had been halted. By late December, however, the exchange rate had stabilized, and by mid-January, foreign banks announced a \$24 billion package of rollovers and new money.⁶⁸

Domestic economic activity slowed markedly in 1998. For the year as a whole, real GDP fell by 5.8 percent, contrasted with the Fund's projected 3 percent. The unemployment rate, which had been 2.2 percent at the end of the third quarter of 1997 rose throughout 1998 and peaked in the first quarter of 1999 at 8.4 percent. The seasonally adjusted industrial production index had been 116 at the end of 1997 and fell to a low of 101.3 in the second quarter of 1998. Thereafter, it rose, reaching its pre-crisis level by the end of 1998 and 144.9 at the end of 1999.

The external accounts improved markedly. There was a sharp drop in imports in immediate response to the crisis, and a much-increased current account balance: while exports were slightly lower in dollar terms in 1998 than in 1997, imports fell 22.4 percent and the current account balance was equal to an astonishing 12.5 percent of GDP for the year. Foreign exchange reserves built up in response, reaching \$74 billion by the end of 1999 and \$83.5 billion by the end of the first quarter of 2000. The decline in real GDP ended in mid-1998, and by the end of the year, real GDP had exceeded its pre-crisis level. For 1999, real GDP growth exceeded 9 percent, and is projected to attain that same rate for 2000.

After early 1998, the nominal exchange rate appreciated in dollar terms, entering the year 2000 at around 1100 to the dollar, contrasted with 1800 to the dollar at the peak of the crisis. Moreover, prices

⁶⁸ Financial Times, January 30, 1998, P. 11.

at the end of 1998 were about 7 percent higher than at the end of 1997; in 1999 the rate of inflation was just 0.8 percent, as measured by the consumer price index.

Progress in restructuring the financial sector was necessarily considerably slower. Although interest rates had fallen below their pre-crisis levels by the end of 1999, restructuring of chaebol and financial institutions met considerable resistance.⁶⁹ Government policy pronouncements and actions have continued to push reforms, but the pace of reform has been much slower than with regard to the balance of payments and external finances.

By early 2000, it was certainly the case that the Korean recovery had been more rapid and more pronounced than had been anticipated by any. While there was an underlying question as to whether the financial reforms had been effected in ways which would enable further financial development on a sound basis, there was no doubt that recovery had come, and come dramatically. Korea was regarded as the most successful country in pulling out of the crisis.

After the initial program of December 3, 1997, there were LOIs dated December 24 1997, February 7 1998, May 2 1998, July 24 1998, December 9 1998, March 10 1999, November 2, 1999 and July 12, 2000.⁷⁰ In each targets were revised and the program was amended as judged appropriate. In general, the fiscal deficits achieved – especially in 1998 – were less than target, while foreign exchange reserves exceeded target. By 1999, fiscal objectives were once again to reduce the budget deficit as the recovery accelerated more rapidly than had been anticipated. The July 12 2000 LOI was the final review under the stand-by, which is set to expire December 3 2000.

⁶⁹ See, for example, *Financial Times*, November 23, 1998, P. 17, “Boxed into a Corner”, by John Burton, where the header read “South Korea’s chaebol are fighting a stiff rearguard action against government reforms but the conglomerates are being forced to change their ways”.

⁷⁰ These are all available on the IMF’s website: <http://www.imf.org/external/np>.

How Good was the Fund's Program? There are three key issues on which the Fund has been criticized with respect to the Korean program after the East Asian financial crisis. The first pertains to the degree of monetary and fiscal tightening that accompanied the onset of the program, and the second is the extent to which issues such as corporate governance needed to be a part of the program.⁷¹ The third is the size of the loan package, although on that issue there are criticisms both that it was too small and that it was too large.

Turning to the degree of monetary and fiscal tightening that took place, Stiglitz has been perhaps the foremost spokesman for the view that tightening interest rates may in fact have been counterproductive during the crisis phase. As seen in Section 3, there is a trade-off between tightening the money supply and letting the exchange rate depreciate more, and both of these measures have their dangers.⁷² Given the rate at which reserves were dwindling and the exchange rate depreciating in November-early December 1997, it seems absolutely clear that monetary tightening had to take place. Its extent had to be such that a strong signal was provided (especially in light of the elections and the new government) that the government was serious about addressing the situation. Indeed, judging by the continued slide of the won in the first two weeks after announcement of the IMF program, a case could even be made that perhaps monetary policy should have been even tighter!⁷³ Certainly with respect to

⁷¹ For criticisms of the Fund with respect to the monetary and fiscal tightening, see Sachs (1997) and Furman and Stiglitz (1998); for criticisms of the Fund with respect to the breadth of coverage of the program, see Feldstein (1998).

⁷² Stiglitz has argued that interest rate increases may have increased the degree of exchange rate depreciation and financial instability as only riskier investments would be undertaken at higher interest rates. Tests of this hypothesis provide strong evidence that this was not the case in Korea. Cho and West (1999) tested the relationship between interest rates and exchange rates in Korea over the period December 1997 to mid-1999 and found that "the high interest rate policy after the crisis contributed to stabilizing the exchange rate in the short run..." But they found the recovery of the foreign currency liquidity position the longer-run determinant of the exchange rate. However, recovery in reserves came about because of the turnaround in the current account balance, itself a function both of the IMF loan and of the exchange rate and the appreciation of the won.

⁷³ See Financial Times, December 12, 1997, P. 17. John Burton, in "This is an Unusual Situation", wrote that "In the week since it signed up..., South Korea has seen its currency drop by nearly 30 percent against the dollar. Corporate

monetary policy, it seems evident that it was at the very beginning none too tight. One might question the rate at which it eased in 1998 once the exchange market had stabilized and the severity of the downturn in domestic economic activity became evident, but the criticism of the initial part of the program in that regard seems inappropriate.

Questions may, however, be raised about fiscal policy. As seen above, the first program took into account the impact on government expenditures of the stabilization program; while expenditures were to be reduced and taxes raised, these were intended to offset other increases in expenditure (e.g. larger interest payments at higher interest rates) and lower revenues (because of anticipated recession). There is no doubt that the first LOI did underestimate the extent of the downturn - anticipating 3 percent contrasted with the actual reduction of more than 5 percent of GDP. But adjustments were made in subsequent reviews and LOIs. For example, the September 1998 original target was for a central government fiscal deficit of 7 trillion won; the revised target was 10 trillion won; the actual deficit for that period was 5.7 trillion won. Even for the march 1999 quarter, the target deficit was 23.5 trillion won and that achieved was 19.7 trillion won. Hence, while there can be questions about whether the original fiscal targets were too tight, subsequent IMF missions certainly assented to easier targets, and the actuals were smaller than the target deficits for most of the recession and recovery period.⁷⁴

The second criticism - that the Programs interfered more in internal economic policies than was necessary - is more difficult to evaluate. On one hand, financial restructuring was absolutely essential - first as a very credible intent or capital outflows would have continued and second as a prerequisite for

bond yields are up nearly 5 percentage points to 23 percent, and the country's banks and companies seem as much in danger as ever of defaulting...As the won dropped another 10 percent within four minutes of opening yesterday, some people began to fear that there might be a meltdown in financial markets...."

⁷⁴ I have not been able to ascertain the extent to which this shortfall from deficit targets was the result of more rapid expansion of GDP than anticipated and the extent to which there were other factors.

economic recovery. And because the devaluation and higher interest rates would both weaken the financial sector in the short run (and this would be understood by the markets), failure to address the issue would clearly have increased the severity of the recession and delayed, if not aborted, the recovery.

There is no doubt that financial restructuring is inherently domestic and politically difficult as it entails sorting out property rights among claimants and, perhaps even more important, allocating the losses among various groups - at least between shareholders, borrowers, and taxpayers. Were there an international institution or organization (such as the BIS) that supported financial restructuring efforts, there would of necessity have to be close coordination between that agency and the IMF when twin crises arose. In the absence of such an agency, however, it would appear that the IMF cannot credibly support a stabilization program without being assured that appropriate financial restructuring will take place.

These issues would be much less pressing if countries' governments, financial institutions, and corporations did not take uncovered debtor positions in foreign exchange. But as long these positions are taken⁷⁵ and financial institutions are already weak at the outset of a crisis because of NPLs, financial restructuring will often be an essential part of stabilization programs.⁷⁶ While improved incentives for financial institutions to manage risk appropriately and appropriate strengthening of prudential supervision would significantly reduce the incidence of twin crises, addressing these issues when they do arise is unavoidable.

⁷⁵ Hahm and Mishkin (1999) estimate that more than 60 percent of the foreign currency obligations were uncovered at the time of the crisis.

⁷⁶ This is vividly illustrated by the contrast between Brazil's crisis in the early months of 1998 and the Asian crises. In Brazil, the financial system had few NPLs when the real was allowed to depreciate, and there appear to have been few

One can also raise questions as to whether financial restructuring has gone far enough. As already mentioned, the Korean government has encountered major political resistance to efforts to restructure the finances of the chaebol and to attain arms'-length transactions between the chaebol and the financial institutions. The question, however, would be whether the international community should be more insistent upon rapid restructuring than it was; to the extent one can criticize the evolution of economic policy in Korea since the crisis, that criticism would be with respect to the slowness with which financial restructuring has occurred.⁷⁷

The third issue (for all the Asian programs) was whether forthcoming support from the IMF and the other bilateral and multilateral institutions was of the appropriate size. Some argue that the financing should have been larger, at least enough to cover outstanding short-term indebtedness and should have been available without conditions. To this proposal, there are several responses. First, if a country does not adjust its policies, it is likely that capital outflows will continue; and capital flows are not limited to short-term debt. A larger volume of foreign financial resources coupled with a smaller adjustment package would likely result in a greater capital outflow, and hence be self defeating.

The other criticism - that the financial support should have been smaller - is based both on the outcome (not all resources were used) and on the proposition that there is moral hazard involved in IMF lending. While there is no doubt moral hazard, those top policy makers who were in office in the run-up to the crisis in Korea (as well as in Thailand, Mexico, Brazil, and Indonesia) lost their jobs very quickly in any event. And, as noted, given conditions at the time of the IMF loan, it seems evident that the

foreign-currency denominated liabilities. The Brazilian recession was both short and shallow, and recovery was remarkably rapid, surprising most observers.

⁷⁷ A great deal of the focus in the July 12 2000 LOI, which is the last one, is on issues pertaining to further financial restructuring, including the need for reform of investment trusts and the corporate sector.

financial package should have been more than a “minimum” in order to reduce or eliminate expectations of a further free-fall of the exchange rate or of a financial crisis.

On most criteria, therefore, one can evaluate the IMF programs in Korea as having been successful: hindsight enables a clearer focus on the factors that contributed to the rapid emergence of the crisis⁷⁸ and there are lessons for economic policy management for crisis avoidance, and there are areas where one can be critical at the margin of the stabilization program, but on balance, Koreans and the rest of the world are better off because of the Fund’s activities during the very difficult crisis period and its aftermath.

The Indonesian Crisis

The Korean stabilization program is of course of interest in itself; it is also of interest in terms of analyzing the components of a Fund stabilization program, and the reasons for them in light of conditions at the beginning of the crisis. By contrast, the Indonesian case is of more interest in understanding how political conditions or decisions can prevent the successful outcome of a Fund program. I therefore very briefly sketch the background to the Indonesian crisis and the original Fund program, focusing instead on the factors that contributed to Indonesia’s relatively poor performance after the initial crisis and Fund program.

Background. Indonesia had also experienced rapid growth over the preceding several decades, averaging about 7 percent annually. Starting as a very populous (with little arable land per farmer and a large population, currently over 200 million) and poor country, living standards and other indicators of well-being had risen markedly for most of the population, including that majority who were employed in

⁷⁸ One can also raise issues about the incentives for foreign lending to emerging markets and ways that there might be incentives for a better balance between different forms of capital inflow.

agriculture. Indonesia's growth differed from that of the East Asian "tigers", however, in a number of respects. Growth of industry was spurred to a large extent by the internal market, and had not been accompanied by a rapid growth of new manufacturing activity destined for exports; indeed, foreign exchange earnings to support growth originated largely in primary commodities - oil exports had accounted for more than half of foreign exchange earnings until the mid-1980s when the price of oil fell sharply; agricultural commodity exports were also important. Protection against foreign imports had remained relatively high, and many new projects (such as an auto plant and there were even plans for an airplane factory) were anticipated as import substitution ventures. Many viewed the Indonesian policy makers as schizophrenic between reliance on markets (and therefore presumably on growth of exports of industries with large inputs of unskilled labor) and retaining governmental controls and ownership over industry in order to develop high-technology import-substitution industries.⁷⁹

Nonetheless, growth of agricultural output and productivity had been quite rapid, and rural standards of living, literacy rates, and health and nutrition indicators had risen significantly. The fraction of people living below the poverty line had been greatly reduced.

Hence, Indonesia was regarded as an economic success story, although visibility in the international economy was well below that of the East Asian tigers with their reliance upon manufactured exports and development of international markets for their output. Key differences were that living standards remained much lower than in East Asia, and politics were more suspect, especially after Korea moved toward more representative government in the mid 1980s, with Taiwan following suit

⁷⁹ See, for example, Wall Street Journal, March 25, 1993 P. A8, "'Economic Roads: Indonesia is Divided on Whether to Compete on Low Labor Costs or Try High Tech'".

President Sukarno, the independence leader and national hero, was in office until 1966. During his Presidency, inflation had reached the thousands of percentage points annually, exports had dropped dramatically, and living standards had clearly not risen, although statistics were sparse and unreliable.

In 1966, Sukarno was overthrown in a bloody revolution⁸⁰, and a General, Suharto, took power. He remained in office until early 1998. During his tenure, economic growth was rapid - as already mentioned - and the Indonesian government was generally regarded as having done well in its economic policies, both for growth and for poverty alleviation. However, it was also widely recognized that President Suharto was the country's ruler, that his friends and cronies were benefiting enormously from the regime⁸¹, and that opposition was not tolerated. As his tenure in office got longer and as he aged, the regime appeared increasingly oppressive, and questions about succession were more pressing.⁸²

The early 1990s were years of relatively successful growth: real GDP continued to grow at rates between 6 and 8 percent annually, inflation remained around 5 percent annually, and the government fiscal accounts were showing a small surplus. There were a few worrisome signs. The current account deficit widened substantially from the \$2 to \$3 billion dollar range of the early 1990s to \$6.4 billion in 1995, \$7.3 billion in 1996, and \$4.9 billion in 1997. Moreover, Indonesia's short term debt had risen from \$18 billion in 1992 and 1993 to \$36 billion in 1997, while international reserves, which had equaled short-term debt in 1993 were only \$20.3 billion at the end of 1997 - a debt-reserve ratio of 2.2, and a

⁸⁰ The extreme violence in 1966 is one of the bases for nervousness about political instability in Indonesia.

⁸¹ See *Economist*, November 17, 1990, P. 37. The subheading for the article read "The world's fifth most populous country may be on its way to producing another of those famous Asian economic miracles. Will politics ruin it?"

⁸² I was at a luncheon of bankers in Melbourne when the Indonesian rupiah was depreciating sharply. The Indonesian economy was the subject of discussion. One of the bankers present commented that he traveled all over the world for his bank, and that he had visited Indonesia the preceding July. It was, he reported, the only country he

short-term debt-GDP ratio of 0.15. The proximate source of this deterioration was a very rapid growth of domestic credit, which had increased by 21-22 percent in every year after 1993, and which then rose by 25 percent in 1997. It was well, but not officially, known that much bank credit was destined for the relatives and friends of the President, and that many loans were on non-performing status, or were at best “evergreen”, in that additional credit was extended to enable the payment of debt-servicing obligations.

An election was scheduled for early 1998, and there was considerable speculation as to whether or not Suharto would run for another term in office. However, in the summer of 1997, capital flight began from Indonesia, and the rupiah began depreciating rapidly. The exchange rate had been 2,200 Rp. per U.S. dollar at the end of 1994, and 2,380 Rp. per dollar at the end of 1996. Even at the end of June, it was 2,450. Then the rapid slide began. By the end of September, it was 4,471; by the end of December 6,274, reaching over 15,000 at its peak, and equaling 14,900 per dollar at the end of June 1998.

Of the various countries that were severely affected by the Asian financial crisis, it is probably Indonesia that caught people most by surprise.⁸³ In part, this was because of the relatively good economic performance of earlier years and, probably, a belief that the economic policies underlying this performance would continue independently of political events. Moreover, the Indonesian rupiah did not appear to be overvalued. Four sets of estimates have been made of the degree of real overvaluation of various Asian countries as of late 1996 or early 1997. One found the rupiah to have been undervalued,

had visited on business in which the first thing he heard about was the evacuation plans in the event of a political uprising.

⁸³ To be sure, there were runs on the Hong Kong stock exchange and to some extent on the Taiwanese dollar and the Singapore dollar. But in these instances, defenses were successful and the impact was far smaller than in Thailand, Korea and Indonesia.

while the other three estimated overvaluation in the range of 4.2 to 9.6 percent.⁸⁴ Indonesia's incremental capital-output ratio remained at around 4 during the mid-1990s, while those of the other Asian countries were rising. Finally, Indonesian exports had continued growing reasonably rapidly - over 9 percent from the second half of 1995 to the second half of 1996 - at a time when export growth in the rest of the region (except the Philippines) had been flagging. Hence, while observers had long recognized that Indonesia's political situation was more volatile than that of the other rapidly-growing Asian economies, there was less short-term concern about economic indicators.

However, the Indonesian banking system appears to have been much weaker than was generally appreciated. The official estimate of the percentage of NPLs in the banking system prior to the crisis. 8.8 percent for 1996⁸⁵, the highest in the region (Thailand's official estimate was 7.7 percent and

t JP Morgan and Goldman Sachs estimated actual NPLs as a share of total loans in 1998, and also the share at the peak of the crisis: their estimates were 11.0 and 9.0 percent respectively for Indonesia's total NPLs in 1998, and 30 to more than 40 percent at the peak of the crisis. These, too, were high relative even to other Asian countries.⁸⁶

The corporate debt/equity ratio was put at 200 percent by 1996, and the estimated return on assets 4.7 percent. Thus, the financial sector was highly vulnerable and weak prior to the attack on the currency. When that attack came, the high ratio of short-term debt to international reserves was the proximate cause, but the weakness of the financial system clearly intensified it. There was no deposit

⁸⁴ Estimates for the other Asian countries also indicated little evidence of overvaluation, with the largest estimates being for the Philippines. See Berg (1999), Table 2, P. 8.

⁸⁵ Data on Asian financial indicators of vulnerability prior to the crisis are from Berg (1999), Table 2, P. 8, which seems to be as comparable a set of estimates across countries as is available.

⁸⁶ Both sources put Korea's and Thailand's actual NPLs in 1998 above those of Indonesia in 1998, but Indonesia was still higher at the peak of the crisis by their estimates. It should be noted that the estimates for the Philippines were

insurance in Indonesia. Once the closure of some insolvent financial institutions was announced, depositors questioned the dependability of other banks and some fled to foreign currency, rather than to the sounder domestic banks.⁸⁷

The Crisis. The Indonesian rupiah began to depreciate in mid-1997, after the Thai crisis. Capital flight, if anything, intensified after that, even after the first Fund program was announced and begun early in November.⁸⁸ A key problem was that, once the downslide began, political instability followed. As already mentioned, there had been questions about the forthcoming election and whether President Suharto would run again early in 1998 even before the beginning of the crisis. Indeed, as late as December, the rupiah fell partly on the rumor that the President's health had deteriorated and that he would not seek reelection. In the event, the economic downturn led to intensified political opposition, and President Suharto stepped down, and was succeeded by one of his allies, President Habibie. Then, after elections were held in the middle of 1998 (for Parliament), a coalition government led by President Abdurrahman Wahid came into office. Some of the government's primary concerns were political⁸⁹, and the problems of the economy seem to have been underestimated or at least not really fully understood by the leaders of the new government.

Either way, from October 1997 onward, political considerations dominated and led to considerable uncertainty as to what actions would be taken by the relevant economic officials; even

far below those of other Asian countries, which may explain why the Philippines was able to avoid the severe downturn that affected other Asian countries.

⁸⁷ Berg (1999) P. 23, points out that "After the announcement of the program at the end of October, foreign loans continued to be withdrawn. The exchange rate stayed reasonably stable until early December, when rumors of president Suharto's ill health...precipitated a sharp decline in the rupiah. Rollover rates on external credits fell to very low levels and fears of imminent default intensified."

⁸⁸ The first Letter of Intent is dated October 31, 1997. All references to Letters of Intent (LOIs) are referred to by dates. They may be found at <http://www.imf.org/external/country/IND/index.htm>.

⁸⁹ Chief among these was the role of the military. The President seems to have focused on this issue, and was able to reduce the influence and power of the military significantly during the first part of 2000.

when commitments were made, it was not apparent whether they would be carried out. This pattern started even under President Suharto, who declared in January 1998 that he would not necessarily follow IMF advice (despite the LOI of November). That episode ended with the famous photo of the IMF's Managing Director, arms folded, looking on as Suharto finally signed another agreement.

This state of things led to a number of renegotiations, cancellations of old agreements, signing of new ones, delays in approving second tranches, etc.. There were LOIs at frequent intervals; almost all restated or had more urgent calls for actions that had been agreed upon in the earlier programs. The January 15, 1998 LOI, for example, set new and looser fiscal targets (in light of the severe deterioration of the Indonesian economy); the LOI of October 19, 1998 enumerated a large number of targets and dates which had fallen behind schedule.⁹⁰ In January 2000, the earlier extended facility (of August 25, 1998) was canceled and a new extended arrangement entered into with the new government in place.

One of the manifestations of political instability was the apparent inability of the Government itself to agree on a course of action. Announcements were repeatedly reversed; decisions taken were amended or not implemented; and inaction appeared to rule. Even as this paper was being written, the newly-installed economy minister (who replaced his predecessor in order to bring "leadership" to the economics team) announced his open disagreement with the Finance Minister over the future of Bank Rakyat Indonesia.⁹¹

⁹⁰ These included such items as introducing a law in Parliament to give Bank Indonesia autonomy; earlier LOIs had targeted this for September 30, 1998; in the October LOI, it was reported as being "in preparation". Likewise, there had been an intent to review the portfolios and finances of all the banks held by IBRA (Indonesian Bank Reconstruction Authority) which had assumed control of the banks by August 30, 1998, and it was reported that 27 banks had been reviewed, with the rest (27) to be completed by November 15. A commitment to remove restrictions on debt/equity conversions - essential for corporate financial restructuring - had been made for September 30, 1998 and was reported in the LOI as "expected soon".

⁹¹ Indonesian Observer, September 13, 2000. See also the editorial by Sadli, in Bulletin Kadin, September 2000, titled "Muddling Through of Economic Recovery Continuing, Amidst Political Uncertainties".

The decline in Indonesia's real GDP in 1998 was the severest of the crisis countries: real GDP is recorded to have fallen by 13.7 percent; preliminary estimates indicate a further drop of 0.8 percent in 1999. This compares with a decline in real GDP of 9.4 percent in Thailand - the next hardest hit and estimated growth in 1999 of 2.5 percent. Estimates for 2000 focus on real growth of about 2 percent.

Evaluation of the Program. In an important sense, economic growth has not resumed. The 2 percent forecast growth is expected to originate mostly in agriculture and other informal activities, and reflects primarily a larger number of people in those activities. The important question is: what has gone wrong?

In a number of regards, the Indonesian situation as of mid-1997 appears not to have been dissimilar to that confronting Korea: both had political uncertainty (although Korea's election was sooner and it was quickly resolved); both had a high ratio of short term foreign debt to international reserves; and both had weak domestic banking systems. Moreover, the initial IMF responses look similar. In both instances, programs called for financial restructuring and supporting measures for it, initial tightening of monetary and fiscal policy,⁹² and were implemented only after the currency had depreciated markedly.

The first difference between Korea and Indonesia seems to lie in the immediate aftermath. Neither Fund program provided (or could have provided) sufficient resources to enable private creditors to have been repaid: there had to be some debt rollover in addition to the support from the international community. In Korea's case, rollover of private sector debt and stretching out of maturities started almost immediately with the restructuring of bank debt late in December, and \$22 billion more

was rolled over into medium-term debt in April 1999.⁹³ By contrast, in Indonesia's case, the capital outflow did not stop. Moreover, private firms and banks holding foreign currency-denominated debt found themselves with rupiah-denominated obligations increased by a considerably greater multiple than in Korea because of the larger proportionate rupiah depreciation. The already-weak financial system was in imminent danger of collapse.

The government of Indonesia did take over the banks and founded IBRA to undertake restructuring. But IBRA was very slow to commence work, and a year after its inauguration had done very little. Moreover, IBRA compensated banks for the loans it assumed with non-negotiable government bonds. Much as some sort of takeover was probably in order, banks could not and cannot (since they still hold them) lend nonnegotiable instruments. There was doubt about the soundness of the banks that were still functioning; IBRA was not recapitalizing and restructuring the banks; and the banks were not lending. In the words of Al Harberger in December 1998, 14 months after the crisis had begun:

“At some point in time during the early months of the crisis, the Indonesian commercial banks, beset by demand from their own creditors, virtually shut their ‘new loans’ window. Their determination was to collect on their ‘old loans’ to the extent that these were amortized, and then to use the proceeds either to pay their own creditors or to strengthen their very precarious liquidity positions. The response of the commercial banks’ customers to this new policy was simply to stop making amortization payments on their debts to the banks. Some customers continued to pay interest, others did not. Of those debtor companies that paid neither interest nor amortization, some were solvent and able to pay, simply choosing not to pay under the special circumstances of the moment. Others were truly unable to

⁹² The Fund's later review of the programs in the crisis countries defended the initial monetary and fiscal stances in each country as set forth in the LOIs, but recognized that relaxation of the fiscal stance might have come sooner. See

pay; their loans would be ‘bad loans’ under any circumstances. Unfortunately it was not easy to discriminate among the non-payers, so that one did not have a clear idea of how many of them were in one category and how many in the other.

“The situation of a wholesale ‘borrowers’ strike’ against paying off existing loans came as something new to me. It adds new complications to the problem of bailing out the banks, and may greatly magnify the cost that ultimately has to be borne by the taxpayers.”⁹⁴ Failure of IBRA to act more quickly and decisively and the failure of the domestic financial system explains much of the continuing difficulties of Indonesia. Those difficulties, in turn, are in large part a reflection of the political situation and its uncertainties.

The question arises, therefore, as to a) whether the Fund should have initiated a program in the first place and b) once it had done so and the authorities were moving slowly, whether it should have continued in its support. The first question is by far the easier. Clearly, the political events that transpired once the Indonesian crisis was under way could not have been anticipated. The Indonesian situation was not that dissimilar to those in the other Asian countries,⁹⁵ and uncertainties appeared to be no greater, and possibly even less, than those in Korea. Moreover, it is even conceivable that had the Fund program worked initially as well in Indonesia as it did in Korea, the political difficulties that transpired during the winter of 1998 might have been postponed, and an upturn might have taken place.

Press Conference of Jack Boorman, January 19, 1999, <http://www.imf.org/external/np/tr/1999/tr990120.htm>.

⁹³ See Berg (1999), P. 21.

⁹⁴ Harberger (1999), Pp. 60-61.

⁹⁵ There is also an issue, not discussed here, which was raised at that time and which supports the Fund’s actions. That is, there was concern about “contagion” from country to country during the crisis. Indeed, there have been two views of the Asian crisis, one focusing on fundamentals, and the other on “irrational markets and contagion”. Although it is clear that creditors, when surprised in one situation, look around to ascertain their vulnerability to similar situations elsewhere, the prevailing view of the Asian crisis seems to have swung more and more toward fundamentals as more and more evidence emerges as to the weak and weakening states of the domestic financial systems in the crisis countries in 1996 and 1997.

Perhaps most telling of all, however, there was, as stated by Berg, an “imminent danger” of the complete collapse of the Indonesian financial system and it seems a straightforward conclusion that anything that brought about a significantly positive probability that that eventuality would be averted was a worthwhile proposition.

It has also been questioned whether all the conditions of the Indonesia program were necessary. Here, the answer is less clear-cut than with regard to the existence of a program. However, the inability of the Indonesians to carry out commitments, even when backed by Fund pressure, that were obviously essential to the resolution of the crisis, suggests that many of the secondary conditions set forth in the LOIs were well warranted. Clearly, measures to restructure the finances of the banks and the corporate sector had to be included as part of the program.⁹⁶

The issue then is whether the Fund should lend at all unless these measures are undertaken. To the extent that Fund conditionality on these issues increased the likelihood of their implementation or accelerated the rate at which they were implemented, a strong case can be made for their inclusion; an argument against most of these conditions that were essential to financial restructuring would have to hold either that no loan should have been forthcoming until the conditions were met prior to the loan or that the Fund’s imposition of conditions was counterproductive.

The second question – whether Fund support should have continued when implementation was so slow and so weak - is more difficult. The case for continued lending is probably best couched in

⁹⁶ There were conditions such as that calling for the end to the government’s clove monopoly where it can be argued that this, while desirable, was not essential as part of the program, and probably should not have been imposed on a government whose implementation capacity was in any event weak. Another condition called for reduced tariffs: this was arguably defensible: the ideal time to reduce import duties is when devaluation is occurring, as it minimizes the costs to the domestic economy and at the same time cuts the inflationary pressure of the devaluation. In Indonesia’s case, an argument can also be made that the country had probably exhausted its potential for growth through import-substitution, and that resumption of growth could not occur at anything like the earlier rates unless such a measure

consideration of the alternative: what would have happened, given the state of Indonesian politics, had the Fund withdrawn its support?⁹⁷ Given the inability of Indonesia to attract private capital in any event, it is almost certain that such a move would have triggered further capital outflows, further weakening the fragile financial system, and reducing real GDP even further. Conjectures as to what the political responses might have been are well beyond the scope of this paper, but it seems likely that the political consequences would have been sufficiently grave that a decision on more than postponement of a tranche would almost certainly have required the approval of the major shareholders in the Fund. It is doubtful whether such approval would have been forthcoming.

There is no doubt that, as of late 2000, the Indonesian economy has still not achieved a situation in which growth can resume and normal capital flows can replace official finance. Finding fault with the Fund program, on that account, however, requires the further step of assuming that there was an alternative program that would either have resulted in a different political evolution of the country or would have worked even in the absence of better implementation on the part of the government. Those believing that the Fund programs were inappropriate should be asked to specify an alternative scenario: it is not evident that there is one.

5. Contrasts between Korea and Indonesia and Other Countries.

Thailand's crisis had a great deal in common with Korea and Indonesia. It had a long history of rapid economic growth based on a reasonably open economy and export growth at a fixed nominal exchange rate. But the financial sector was very weak and deteriorating. In the mid 1990s, a real estate

was taken. Careful reading of the conditions in the LOIs for Indonesia suggests that there were a few, but not very many, conditions imposed that could not be justified.

⁹⁷ On several occasions, disbursement of later tranches of Fund support were delayed pending improved implementation. This happened, for example, in April 2000. The Fund staff obviously had to make a judgment call as to how much action they would insist upon as a condition for additional support.

boom was accompanied by rapid expansion of bank credit (averaging 37 per cent per year from 1992 to 1996), in turn financed by capital inflows. Nonperforming loans prior to the crisis are estimated to have been between 17 and 18 percent of all bank loans outstanding. Because many were secured by real estate as collateral, Thailand was highly vulnerable to any decline in real estate prices. Between 1991 and 1996, in addition, the debt/equity ratio of Thailand's corporate sector had increased from 170 to 340 percent, which was the second highest among the crisis countries.

In the case of Thailand, Fund staff were reported to have been urging the Thai government to alter the exchange rate or the exchange rate regime for at least a year prior to the crisis. The current account deficit had averaged over 6 percent of GDP in the 1991-95 period and stood at 7.9 percent of GDP in 1996. Short-term external debt at the end of 1996 was almost exactly equal to reserves.

When the crisis unfolded, capital outflows from Thailand were a key culprit. Initially, several banks were closed, and immediate action was taken to begin to restore the financial system. New money associated with the inauguration of the IMF program and exchange rate change (with the rate floating) were sufficient to stem the capital outflow.⁹⁸ The Thai government appears to have followed the Fund programs fairly faithfully, and Thailand's recovery has been second only to Korea's among the crisis countries. As in the other crisis countries, the fiscal stance was loosened as the severity of the crisis became evident.

An interesting contrast is with that of a non-crisis country: the Philippines. By most measures of the performance of the foreign sector, the Philippines economy had the most troublesome situation going into the crisis period. The country had had a lower overall rate of economic growth in the 1990s than any

of the crisis countries. Its real exchange rate is estimated to have appreciated markedly from 1991 to 1995; the current account was in increasing deficit, reaching 4.7 percent of GDP in 1996 and 5.3 percent of GDP in 1997. Moreover, the government was incurring small fiscal deficits, and public debt was a higher percentage of GDP in 1997 than in any of the crisis countries.

However, its financial sector appears to have been considerably stronger than that of the crisis countries. Morgan and Goldman Sachs respectively estimate actual NPLs in the banking system in 1998 as 5.5 and 3.0 percent, and the peak number after the crisis is much lower than that of any of the crisis countries. The corporate sector's debt/equity ratio was put at 160, somewhat lower than that of the other crisis countries.

These differences are striking: the Philippines' external sector was in more severe disequilibrium than that of the crisis countries, but its financial sector was in considerably better shape. The Philippines' nominal exchange rate depreciated 32.2 percent. But the fact that its banking system was sound permitted it to lower the nominal interest rate in 1998, and real GDP fell by 0.5 percent - a much smaller magnitude than any of the other crisis countries.⁹⁹

Based on other corroborating evidence (the ease of Brazil's recovery from the real crisis in the context of a relatively sound banking system) as well, the conclusion seems inescapable that the negative impact on real GDP and an economy of a financial crisis combined with an external crisis is much greater than the sum of the negative impacts of two separate crises: each feeds upon the other. It also seems evident that restructuring the financial sector – or at least putting in motion credible policies that

⁹⁸ Berg (1999) credits the stemming of capital flight to the Fund program and the fact that “foreign banks based in Thailand accounted for more than half of Thailand's private external debt maturing in 1998. These banks, largely Japanese institutions borrowing from their own headquarters, were willing to agree to maintain their exposure.”(P. 25).

⁹⁹ The shift in the Philippines' current account balance in 1998 was 6.7 percent of GDP, contrasted with 7.2 percent in Indonesia, 16.9 percent in Korea, and 20.3 percent in Thailand.

will insure the rapid restructuring - is essential to the resolution of a crisis triggered by capital outflows. Delay does not appear to ease the negative effects, but to prolong them and perhaps even to intensify them.

The international economy can be, and is being, restructured in ways that make a crisis, either financial or foreign exchange, less likely. Floating exchange rates, altered BIS capital adequacy rules so that short-term debt is not preferred on the part of lenders, various steps that have been taken and are now being contemplated to strengthen financial systems and to redress the imbalances between the attractiveness of short-term lending and other forms of capital inflow, will all contribute.

But crises there will surely be. Lessons from the Asian crisis will certainly enable all analysts to appreciate the interactions between financial and foreign variables and their crucial roles in determining vulnerability for crisis and its aftermath. But, especially in a world in which capital outflows can magnify quickly, an institution such as the IMF seems absolutely essential for ensuring the world's ability to react in a timely fashion. And, as long as there are weak financial systems negatively impacted by exchange rate movements and/or capital outflows, it will continue to be necessary for the IMF to address financial restructuring, as well as exchange rate issues.

REFERENCES

- Behrman, Jere. 1976. Foreign Trade Regimes and Economic Development: Chile, Columbia University Press, New York.
- Berg, Andrew, 1999. "The Asia Crisis: Causes, Policy Responses, and Outcomes", International Monetary Fund Working Paper WP/99/138. October.
- Boughton, James M., 1999. "From Suez to Tequila" The IMF as Crisis Manager", Economic Journal,
- Cho, Dongchul and Kenneth D. West, 1999. "The Effect of Monetary Policy in Exchange Rate Stabilization in Post-Crisis Korea", KDI Conference on The Korean Crisis: Before and After, 15 October.
- Cline, William R. and Sidney Weintraub, editors, 1981. Economic Stabilization in Developing Countries, Brookings Institution, Washington
- Cooper, Richard N., 1971, "An Assessment of Currency Devaluation in Developing Countries", Chapter 13 in Gustav Ranis, editor, Government and Economic Development, Yale University Press, New Haven.
- Edwards, Sebastian, 1989. Real Exchange Rates, Devaluation and Adjustment. MIT Press, Cambridge.
- Feldstein, Martin, 1998. "Refocusing the IMF", Foreign Affairs, Pp.20-33. March/April.
- Frank, Charles R. Jr., Kwang Suk Kim, and Larry Westphal, 1975. Foreign Trade Regimes and Economic Development: South Korea, Columbia University Press, New York.
- Furman, J. and Stiglitz, J.E., 1998 "Economic Crises: Evidence and Insights from East Asia", Brookings Papers on Economic Activity, (2). Pp. 1-114.

Hahm, Joon-Ho and Frederic S. Mishkin, 1999. "Causes of the Korean Financial Crisis: Lessons for Policy", in Korea Development Institute, The Korean Crisis: Before and After, KDI, Seoul. October.

Hargberger, Arnold C., 1999. "The Indonesian Crisis Revisited", mimeo. December.

Hong, Wontack, 1981. "Export Promotion and Employment Growth in South Korea", Pp. 341-391 in Anne O. Krueger, Hal B. Lary, Terry Monson and Narongchai Akrasanee, editors, Trade and Employment in Developing Countries, Vol. 1. Individual Studies. University of Chicago Press, Chicago.

International Monetary Fund, 1995. International Capital Markets: Developments, Prospects and Policy Issues. Washington, D. C.

James, Harold, 1996. International Monetary Cooperation Since Bretton Woods, Oxford University Press, New York

Krueger, Anne O., 1979. The Developmental Role of the Foreign Sector and Aid, Harvard University Press, Studies in the Modernization of the Republic of Korea: 1948-1975, Cambridge, MA.

Krueger, Anne O., 1978, Foreign Trade Regimes and Economic Development: Liberalization Attempts and Consequences-, Ballinger Press for the National Bureau of Economic Research, Lexington, MA

Krueger, Anne O., 1999. "The Founding of the Bretton Woods Institutions: A View from the

Sheng-Cheng Hu, and Yun-Peng, The Political Economy of Comparative Development into the 21st Century, Volume I, Edward Elgar, Cheltenham, UK.

Little, I. M. D., Richard N. Cooper, W. Max Corden and Sarath Rajapatirana, 1993. Boom, Crisis and Adjustment: The Macroeconomic Experience of Developing Countries, Oxford University Press, New York.

Mussa, Michael and Miguel Savastano, 2000. "The IMF Approach to Economic Stabilization", Pp. 79-122. In National Bureau of Economic Research Macroeconomics Annual 1999, MIT Press, Cambridge, MA.

O.E.C.D., 1994.OECD Economic Surveys. Korea 1994. OECD. Paris.

Sachs, Jeffrey, "The Wrong Medicine for Asia", New York Times, November 3.

Williamson, John, editor,1983. IMF Conditionality. Institute for International Economics, Washington, D. C.