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February 2, 1996

To: Members of the Executive Board

From: The Secretary

Subject: Recent Proposals on International Debt Adjustment

Attached for consideration by the Executive Directors is a paper on recent proposals on international debt adjustment, which will be brought to the agenda for discussion in a seminar on a date to be announced. Issues for discussion appear on pages 20 and 21.

Mr. Allen (ext. 38632) is available to answer technical or factual questions relating to this paper prior to the seminar discussion.

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INTERNATIONAL MONETARY FUND

Recent Proposals on International Debt Adjustment

Prepared by the Policy Development and Review Department

(In consultation with other departments)

Approved by Jack Boorman

February 1, 1996

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Executive Summary

Open capital markets and the globalization of international finance, while bringing benefits, have left countries exposed to severe crises if the markets judge policies to have become unsustainable. Large capital outflows may occur and asset prices move sharply in ways that can worsen the fundamentals. It is crucial that countries direct their policies toward retaining market confidence or, in a crisis, to regaining that confidence.

In coping with a crisis, some combination of domestic adjustment, new finance, and creditor forbearance will be needed. There may be limits on the extent of adjustment that is feasible and on the amount of external assistance. Creditor forbearance may be essential, but it is not certain that the mechanisms exist to ensure that payment outflows can be limited to the optimal extent.

In considering any changes in this area, attention has to be paid to balancing the interests of debtors and creditors. The international community is interested both in the speedy resolution of a crisis and in not weakening the ability of creditors to collect what is due to them, as this would impair the effective functioning of the international capital markets. All parties have an interest in mechanisms that specify how conflicts will be resolved without encouraging unnecessary defaults.

In the initial phase of a crisis, it may be necessary as a last resort to stanch the outflow of resources through limiting debt-service payments. If voluntary agreement cannot be reached with creditors, a moratorium may need to be imposed. The coverage of a debt-service moratorium will vary from case to case. If a moratorium is needed, and provided the debtor country is taking measures needed to address the causes of the debt difficulty, its coverage should be sufficient to give the needed relief, without making it more difficult for the country to borrow other money it needs.

Consideration might be given to the official community's sanctioning of such moratoriums. In such cases, official balance of payments support and official bilateral debt relief could be considered, even if some creditors do not agree to the suspension of payments or the restructuring of claims. The paper examines the effect that such a sanction might have on the ability of creditors to bring legal action against the debtor.

The resolution of a crisis that involves a moratorium will also normally require a restructuring of debts, and on occasion debt reduction. The paper discusses proposals to facilitate such a restructuring, particularly for debt in the form of bonds. It is not known whether a major bond restructuring can be achieved with relatively little cost by market means. But if it cannot be, a more formal international debt adjustment mechanism may have to be considered.

Official action in resolving debt crises may be justified by the need to correct market failure. A rush by creditors to dispose of claims may

worsen the fundamentals and produce a suboptimal outcome. The difficulty for all creditors to act concertedly may prevent the adoption of a generally advantageous solution. Intervention may also be justified because of the absence in international markets of the institutions that lie behind the efficient functioning of domestic credit markets, in particular strong frameworks for enforcing contracts and restructuring debts when necessary.

Both liquidity support and action to ensure creditor forbearance raise issues of moral hazard. While there may be more predictable and speedier procedures for handling crises, to limit moral hazard it is essential that default be associated with dauntingly strong adjustment. Investors may be encouraged to lend imprudently and at a lower price if they think they will be bailed out, and countries encouraged to follow more expansionary policies. A judgment has to be made--both in designing the individual framework and in each individual case--as to whether the costs of the support outweigh the benefits.

The cost of capital to borrowers will be affected by the expected rate of credit recovery. A larger provision of international liquidity support will lower the cost of capital, to the benefit of borrowing countries. A concern for market participants is that changes in procedures for handling crises may make it less easy for them to collect on their claims. If an inappropriate adverse effect of any change on the cost of capital is to be avoided, any new mechanism needs to ensure that debt relief is strictly limited to cases where it is unavoidable. In any case, the additional uncertainty surrounding any new mechanism is likely to raise the cost of capital until experience is gained in its functioning.

I. Introduction

The recent Mexican financial crisis has raised the question whether the international community has the appropriate instruments to manage and resolve such crises in the new world of open capital markets and increased financial linkages. 1/ An earlier paper by Fund staff examined the legal aspects of an international debt adjustment facility for sovereign debtors. 2/ During the Executive Board seminar discussion of that paper held in June 1995, Directors asked for a paper on the economic aspects of sovereign debt adjustment. In connection with the Halifax communiqué of the G-7, the Executive Board (and the G-10) have asked Fund staff to examine more broadly the basic economic factors giving rise to financial crises and the implications of alternative means of helping countries to resolve such crises.

How to avoid crises is more important than how to handle and resolve them. The former is being dealt with elsewhere, including in the work on the strengthening of Fund surveillance and on data dissemination standards. The present paper concentrates on issues related to the handling of crises that will nonetheless occur. The issues involved are complex, our understanding of the linkages of financial markets is not complete, and the feasibility of some techniques for dealing with various claims is unknown; thus the paper serves more to sketch out areas for discussion and further work than to provide solutions.

II. The Setting

As background to examining recent proposals for debt adjustment, this section discusses the impact of the changes in world financial markets on the nature and handling of sovereign debt crises. These changes have altered the balance between adjustment, new financing, and forbearance by creditors that is needed to deal with a crisis and have meant that crisis handling needs to be directed increasingly toward restoring market confidence in the debtor country. The section also considers the interests of the various parties in resolving crises, as well as the importance of balancing the requirements for an optimal resolution of an immediate crisis

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1/ In June 1995, at its meeting in Halifax, the G-7, while recognizing the complex legal and other issues involved, called for the G-10 Ministers and Governors to review procedures that might be usefully considered for the orderly resolution of debt crises. The Mexican events and the associated official response have also generated a number of academic studies concerning alternative procedures. See, for example, Barry Eichengreen and Richard Portes, *Crisis? What Crisis? Orderly Workouts for Sovereign Debtors*, Centre for Economic Policy Research, September 1995.

2/ See "Note on an International Debt Adjustment Facility for Sovereign Debtors," EBS/95/90, May 26, 1995.

with those of the effective functioning of international capital markets in the longer run.

1. Macroeconomic management and financial crises

The globalization of international financial markets has been described elsewhere. 1/ It has involved both industrial countries and an increasing number of developing countries (the emerging market group) and has created the basis for international savings to be reallocated to more productive use. From the point of view of this paper, the most relevant aspects of this development are the growing amount of cross-border loans, bonds, and equity involving private sector debtors in emerging markets; the shift in the composition of sovereign debt toward traded, internationally held, securitized instruments; and the increased ability of domestic residents and nonresidents to adjust their portfolios into and out of local assets.

These developments have a number of implications for macroeconomic management. First, international savings can be channeled increasingly to more productive use across borders, and more countries can utilize the markets to finance imbalances in their international payments. However, the flow of resources depends on the market's continuing assessment of the debtor's ability and willingness to implement the terms of debt contracts; if this assessment changes, financing can dry up rapidly and the flows be reversed. Second, because domestic and international markets are increasingly interrelated, disturbances can spread rapidly between the domestic and external sectors during a crisis.

In a crisis, the size of flows is potentially enormous, and the movement in asset prices can be destabilizingly large. 2/ If countries lose the confidence of the financial markets, they can face outflows and an overshooting of asset prices far beyond what may be warranted by the fundamentals. On the other hand, once market confidence is restored, private capital markets can support adjustment efforts with large inflows. Policies, therefore, have to be directed toward retaining market confidence, or once lost, to regaining it quickly.

1/ See, for instance, the papers on International Capital Market Developments published in the World Economic and Financial Survey series.

2/ Any holder of claims on the country, nonresident or resident, may try to move capital out in the event of a crisis. Thus the stock of assets potentially affected by a crisis is the stock of all liabilities of residents. Attempts to move out of all these assets will not necessarily be reflected in balance of payments flows, but instead in a collapse in asset prices. Ultimately, the value of underlying claims on real resources may break the fall in prices, but, as discussed in the text, possibly only after substantial and harmful overshooting.

Handling and resolving a financial crisis require a mix of adjustment by the country affected, liquidity support in the form of external financing, and forbearance and restructuring of claims on the part of creditors. These elements are interrelated so that more of one may reduce the need for action on the others. For a country faced with possible large outflows or disruptive movements in asset prices or both, a mixture of financing and action to stanch the immediate net outflow may be a crucial complement to adjustment measures. These actions, however, should ideally not lead to a further loss in confidence by domestic and nonresident market participants. Furthermore, if the restructuring of certain obligations is required, the rights of creditors should be protected and the restructuring should be consistent with the return of the country to market access.

The relationship between the degree of adjustment and the restoration of market confidence is not simple. Although tighter policies will signify a more determined effort by the authorities and thus help restore confidence, beyond some point these policies may become less credible. Either the political will to sustain them will be in doubt, or their very tightness may worsen the fundamentals--for example, by weakening the banking sector or unduly deepening the recession--and leave the country in even greater difficulties. 1/ Thus domestic adjustment alone may not suffice to resolve a financial crisis; external liquidity support or creditor forbearance or a combination of the two may be required.

As evidenced by recent financial crises, both in Mexico and in Europe, when creditors try to liquidate their claims on a country, large reserves or liquidity support may be needed in a world of globalized capital markets to resist excessive exchange rate movements or to help restore creditors' confidence rapidly. External liquidity support, including that provided by the Fund, can assist in financing a country's current operations during and immediately after a crisis, and help the country to avoid excessively deflationary policies. The international community needs to ensure that adequate resources are available for this purpose, particularly for cases where fundamentals are sound.

However, a pool of sufficient size to cope with all possible crises is unlikely to be practical. Furthermore, the assurance that sufficient resources would always be available to meet any difficulty would not be consistent with encouraging lenders to lend prudently or debtors to borrow only what they will be able to repay. Thus, while new money is vital during a crisis, mechanisms for creditor forbearance may also be needed. As discussed below, such mechanisms involve a balance between the rights of creditors to collect their due and the rights of debtors; the international community has an interest in the orderly resolution of a crisis and in

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1/ Part of the problem is that, while monetary policy instruments can be applied rapidly, fiscal adjustment may take longer. The effort to restore confidence in the early stages of a crisis may place an excessive burden on monetary policy, unduly damaging the economy.

protecting the rights of creditors, to ensure the efficient operation of international capital markets. The balance may be hard to achieve.

2. The interests of the various parties

For a debtor, the choice is between the immediate advantages of not servicing the debt and the longer-run costs of the action. The tension between the two becomes especially acute in a sovereign debt crisis. The debtor's concern is to overcome the crisis at the least cost to domestic prosperity. The effectiveness of its adjustment program in restoring prosperity may well depend on the extent to which it can obtain forbearance from creditors, and even in some cases debt reduction. The restoration of prosperity, however, will also require the restoration of creditworthiness, or market confidence that at some point new lending will be serviced according to schedule. In the heat of a crisis, the need to obtain creditor forbearance may loom larger than the more distant goal of restoring creditworthiness.

The creditors' basic interest is to have their claims serviced in accordance with the contractual conditions. They may thus see the trade-off between stronger adjustment on the part of the debtor and more relief from creditors in a different light. Even if they accept that additional relief on their part may facilitate adjustment by the debtor and increase the likelihood of claims' ultimately being serviced, they may hesitate to give relief. Since creditors have few means of enforcing sovereign debt contracts, they may be interested in raising the cost of a default to discourage other debtors from taking this path. Thus, they may insist on maximum adjustment on the part of the debtor, no matter how painful, before being given any relief and make it more difficult for a defaulting debtor to return to the credit markets.

Although the interests of creditors and debtors may vary in a crisis, there are common elements. Both may prefer the prior establishment of a framework for resolving disputes, and discouraging unnecessary defaults, rather than the uncertainty of a resolution driven by crisis considerations. Both are interested in restoring the prosperity of the debtor and in renewing a mutually advantageous financial market relationship. For the latter to occur, the debtor will have to reach an agreement with its creditors that the creditors perceive to be in their interest. For their part, the creditors as a group may recognize that a cooperative solution can increase the extent to which they may collect on their claims. 1/

The interests of the international community lie in striking a proper balance between solving the immediate problems of a particular country and ensuring that international capital markets operate optimally. The

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1/ There may be problems if individual creditors' interests diverge or if a small group of creditors try to do better than other creditors. This possible conflict can give rise to the so-called free-rider problem.

international community is interested in speedy resolution of crises and avoiding excessive mobilization of public resources, but it is also concerned that debt contracts be enforced and that the rights of creditors be protected.

In considering changes in the framework for dealing with financial crises, the proper balancing of interests should be borne in mind. First, there is a general interest that countries should honor the terms of agreements they have made, and thus an interest in supporting existing mechanisms for enforcing contracts. Second, the countries in which the creditors are resident or active may have an interest in supporting the claims of their residents. Third, since restoring creditworthiness is an integral part of resolving the debtor's problem, there is an interest in preventing actions that may make it more difficult for the debtor to normalize its access to financial markets. Finally, if the rights of creditors to collect what is owed them are weakened and if creditors expect to be able to collect less on loans to a particular class of borrowers, they will be less willing to extend credit to other borrowers in that category and will also charge a higher price. The international community thus has an interest in protecting the rights of creditors so that the cost of capital to all similar borrowers does not become more expensive.

Financial crises should not be handled in a way that destroys prosperity. But, at the same time, to ensure the effective operation of the system the enforceability of international debt contracts should not be weakened. This does not mean, however, that the current framework for enforcing international debt contracts cannot be improved.

III. Relief on and Renegotiation of Debt

This section reviews existing mechanisms for immediate relief from debt service and for restructuring debt. 1/ It examines which outflows, if stanched, would give the country breathing space. It looks at the reaction of creditors to a moratorium and discusses instruments for limiting payments. It also describes how a moratorium can be combined with new financing to help the debtor to adjust quickly and effectively.

As a point of terminology, the term "moratorium" is applied to a unilateral decision by a country to cease making payments on certain debt instruments. If a moratorium is formally agreed to by the creditors involved, it is a "standstill". A change in the terms of a debt instrument

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1/ Short-term liquidity problems that hamper debt service, such as those caused by a bunching of payments, are very different from cases where the longer-term sustainability of a country's debt is in question. Creditors may initially be uncertain as to which situation prevails or fear that the debtor may refuse to pay, which is likely to affect their reaction to a moratorium.

that is accepted by creditors is a "renegotiation" or a "restructuring". 1/

At the onset of a financial crisis, action to reduce the drain of resources to creditors--combined with announced adjustment policies and external financing--is intended to restore market confidence in the country's ability to service its other debt, and to take on new liabilities. The extent of action needed to stanch the outflow will depend on the circumstances of the country, including the credibility of the adjustment program and the amount of liquidity available to it. In some cases, it may be possible to use market means to restructure part of the debt, possibly by offering enhanced terms on new instruments issued in exchange for old ones. Wherever possible, such a market solution should be put into place. But the cost of such an approach, given the markets' loss of confidence in the country, may be prohibitive. Thus it may be necessary for the country to impose a moratorium or agree with its creditors on a standstill on servicing certain parts of its obligations.

If a financial crisis is severe enought to require the imposition of a moratorium, the ultimate resolution of the crisis may also require the restructuring of certain debt obligations. This does not have to result in a reduction in payments over the long term, as the present value of debt may be unaffected by a restructuring. However, some payments relief for a period may be needed to give creditors and markets confidence in the country's subsequent ability to service its debt fully. In that event, the contractual terms on existing debt will need to be changed, and one of the functions of a moratorium is to signal the need for such a restructuring and to give creditors an incentive to negotiate a moratorium. Some proposals for modifying the procedures governing moratoriums and restructuring are dealt with in Section IV.

1. Experience with moratoriums and restructuring

When countries have been required by financial crises over the past few decades to limit debt service, they have normally taken action on that part of the debt service related to official bilateral credit and commercial bank exposure. Countries primarily indebted to official creditors have suspended some payments on such debt while negotiating in the Paris Club a restructuring of maturities and interest falling due in support of an adjustment program backed by the Fund. At the same time, debtor countries have sought relief on comparable terms from other bilateral and commercial creditors.

In interrupting debt service, care has normally been taken to ensure that the debtor country not lose access to the external resources needed to continue normal economic operations. Thus, such moratoriums have normally

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1/ See the staff note prepared by the Legal Department, "Legal Aspects of Standstills and Moratoria on Sovereign Debt Payments and Their Effect on Actions by Creditors", to be circulated shortly.

been limited to payments on those claims whose restructuring could be expected (often in light of the practice in other cases). Servicing of short-term obligations and profit remittances has therefore normally been excluded from such moratoriums, in order to limit the loss of confidence on the part of creditors. Similarly, debt eligible for restructuring has been limited by means of the cutoff date, 1/ and the export credit cover for new flows has been restored as adjustment policies take root.

Attempts to limit a moratorium's contagion effects on other credit were sometimes only partially successful. The cost of trade credit normally rose sharply, and trade creditors often tried to reduce their exposure to the country. In a few countries, stocks of short-term trade credit, including commercial bank letters of credit, could not be serviced. Large arrears were incurred on these stocks, undercutting creditors' confidence that such debt would be serviced in other cases. Occasionally, trade credit, either already in arrears or soon to become so because of creditors' refusal to roll it over, was restructured into longer-term debt. In some cases, action was taken by the authorities to ensure that interbank lines were not cut in response to the crisis. As international banks have become subject to more rigorous prudential standards of international lending, short-term claims have increasingly been affected by moratoriums on the service of longer-term debt. 2/

Comparable treatment of different creditors becomes an important issue when agreement is sought on a standstill or a restructuring of claims. Agreements in the Paris Club normally provide that the debtor will seek comparable treatment from its other bilateral official and commercial creditors, as do most London Club agreements. 3/ The creditor groups may, however, consider that the costs of trying to reach agreement with some smaller groups of creditors (and the disruption that such efforts might entail to the country's financing) are too high to justify the effort.

1/ Only debt contracted before the cutoff date, generally established at the first Paris Club rescheduling meeting, is eligible for rescheduling.

2/ At the start of the 1980s, bank regulators did not insist on provisioning against troubled developing country debt and, in some cases, actively discouraged it for fear that its effect on regulatory capital would create doubts about the soundness of important institutions. As the decade went on, some banks found that financial markets rewarded active provisioning against such claims, and bank regulators began to encourage other banks to follow suit. These pressures made it more difficult for individual banks to segregate one form of claim on a country from another, or to convince the markets and their shareholders of the wisdom of extending more credit to a troubled debtor, even in the form of short-term exposure.

3/ The preferential treatment of multilateral creditors has long been accepted by other creditors. For a discussion of comparability, see K. Burke Dillon and Gumersindo Oliveros, *Recent Experience with Multilateral Official Debt Rescheduling*, World Economic and Financial Surveys, February 1987.

Indeed, the country's recovery and resumption of normal debt service might be delayed by such an insistence. Thus, with a few exceptions, 1/ servicing of bond debt was not interrupted in the restructurings of the 1970s and 1980s, nor was this debt rescheduled. In light of the different characteristics of claims and the provision of new liquidity by some parties, determining what constitutes comparable treatment can be a complicated process. With the decline in the share of official bilateral and medium- and long-term commercial bank debt in the debt stock of emerging market countries, comparability consideration in future restructurings may, however, increasingly require action on the other forms of debt.

2. The current situation

With the growing integration of international capital markets and the changes in the structure of countries' liabilities, it is no longer clear that moratoriums limited to the medium- and long-term claims of official bilateral lenders or commercial banks on the debtor government will give a sufficient breathing space (or would be equitable) in light of the growing importance of securitized debt. Loss of confidence may spread to other external claims on the country, for example, short-term interbank lines, trade credit, or private sector liabilities. With the blurring of the distinction between the domestic and external financial markets, such loss of confidence can have an immediate impact on domestic financial conditions, and residents can join nonresidents in trying to adjust their portfolios. Thus, if a moratorium is to be decisive in creating a breathing space, it may need to cover a broader range of debt.

How much of the debt is enough will vary from case to case, and the feasibility of introducing a moratorium will depend on the type of debt instrument involved. In the past, moratoriums have generally been directed at protecting the country's foreign exchange positions, which determined the debt instruments affected. The holders of obligations payable in foreign exchange were most often nonresidents, and action on these claims had a limited effect on domestic markets. With the opening of international capital markets, the distinction between resident and nonresident creditors has become even less relevant. Not only do resident corporations and individuals hold internationally issued claims on their own country, but also debt issued in the domestic market is often held by both residents and nonresidents.

Consequently, if a government were to seek relief only on payments to be made to nonresidents, it might have to reinstitute systems of exchange control. It is unclear how effective such controls would be in both the short and longer runs, and how their cost would compare with that of alternative approaches. In a world of integrated capital markets,

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1/ See Juan José Fernández-Ansola and Thomas Laursen, "Historical Experience with Bond Financing to Developing Countries," WP/95/27, February 1995.

therefore, a moratorium on payments on certain instruments or classes of instrument may be more effective and less disruptive than a moratorium based on residency.

Precisely how much of this debt and which payments elements would have to be restricted will depend on the particular case. In some cases, all internationally issued bonds would be the obvious target. In others, domestic bonds issued in foreign currencies or with payments linked to foreign currencies might also have to be covered. For international debt, the enforceability of the contract would be limited by considerations of sovereign immunity. 1/

Consideration might have to be given to a moratorium on payments on the government's domestic currency debt, although this poses difficult issues. Creditors' attempts to reduce holdings of such debt may be an integral element of the crisis. It may be advantageous to serve domestic currency debt through the issue of new debt instruments (possibly bearing better terms) rather than by cash payments, in other words, to pay debt service in the form of new bonds. Such action to restructure the debt stock might be limited to certain debt instruments with particularly troublesome characteristics.

However, defaulting on domestic debt could have severe repercussions on domestic financial markets and cause a major setback to the restoration of market confidence. The ability of the government to default on the terms of its debt might be subject to court challenge, absent the passage of enabling legislation. In any case, the normal mechanisms for adjustment, including exchange rate depreciation and interest rate increases, will result in a reduction in the foreign exchange value of domestic currency debt and a decline in its market value (except for floating rate debt). While this mechanism does not directly relieve the payments burden on the government, it does result in a treatment of holders of domestic debt that may be comparable in terms of sacrifice, or even greater, than that demanded of holders of external debt. This is a particularly thorny issue that requires further examination before even tentative conclusions could be drawn. 2/

Whether action on sovereign bonds (supplemented as it may be by action on medium- and long-term debt to official creditors and commercial banks) gives sufficient relief to forestall a run on other instruments will depend on the circumstances of the case. If it is likely to be insufficient, action may have to be taken to limit capital outflows through other channels. If there is a fear that creditors will withdraw the funding

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1/ See the forthcoming note by the Legal Department on "Legal Aspects of Standstills etc." for a discussion of this issue.

2/ In any case, there would not seem to be grounds for an international mechanism to be involved in the restructuring of a government's own domestic currency debt. Although some of this debt may be held by nonresidents, the subject would seem to be one for domestic legal procedures.

needed by domestic commercial banks or by major companies, action may have to be taken to protect these banks or companies from their creditors. One objective will normally be to ensure that external lines of trade and interbank credit to the private sector are preserved. However, there may be cases where the payments problems of the country are so severe that even these claims need to be made subject to a moratorium.

The above discussion shows that the implications of a financial crisis for a country's external finances can vary substantially from case to case. It is not clear that the analytic tools are available for judging what sort of moratorium would be required in a given case, let alone applied in the context of an emergency. Nor is it clear that the information and data systems covering countries' debt can to permit rapid assessments and judgments to be made at the time of a crisis. 1/ Further work in these areas would be desirable.

IV. International Action on Debt Adjustment

Resolving a financial crisis of a country with extensive international capital market exposure is likely to be a prolonged and difficult affair. Certain mechanisms have been proposed to facilitate the process. The following section discusses some of them; in particular, giving official sanction to moratoriums on debt-service payments, promoting bondholder's committees to facilitate renegotiation of claims, and establishing an international debt adjustment mechanism. The approaches discussed should not be seen as proposals of the Fund or the Fund staff.

1. Sanctioning moratoriums

Unless, in the context of an appropriately conditional adjustment program, the international community is prepared to provide countries in crisis with sufficient finance and is willing to do so sufficiently quickly to make moratoriums unnecessary, it has been argued that it may need to sanction countries' recourse to such action. Three aspects of such a sanction are discussed below: (1) What might the conditions be for sanctioning a moratorium?; (2) How might it relate to the provision of liquidity in support of the debtor's adjustment program and to the willingness of all creditors to provide relief? (3) What impact might it have on the rights of creditors?

A sanction would indicate that the international community approves the imposition of a moratorium by the debtor. The first consideration would

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1/ See "The Availability of Data on Sovereign Debt," paper prepared by the staffs of the Bank for International Settlements, the International Monetary Fund, and the Organization for Economic Co-operation and Development for the G-10 Working Party on the Resolution of Sovereign Liquidity Crises, SM/96/19, January 30, 1996.

thus presumably be that the moratorium was a necessary element in the resolution of the debtor's problems and did not exceed what was needed. Second, the debtor should adopt a strong adjustment program. Here a question of sequencing arises. Given the speed with which action must be taken at the time of a crisis, the sanctioning of a moratorium would probably have to follow, rather than precede, action by the debtor. Because design and evaluation of the debtor's adjustment program will normally take time, there could be a lag of several weeks between the imposition of the moratorium and its sanctioning. Third, the moratorium should not impose an unfair burden, however defined, on some creditors at the expense of others. Finally, the debtor could be required to pursue negotiations in good faith with its creditors holding the affected instruments to reach agreement on the restructuring of claims. Techniques to assess whether a moratorium and the debtor's behavior met these criteria would have to be worked out, and the sanction of the moratorium could be withdrawn if the criteria ceased to be met. Making such judgments might involve greater intrusion of the international community into a country's relations with some of its creditors than has been the case hitherto.

As regards the provision of liquidity and the willingness of creditors to provide relief, in domestic procedures for restructuring the finances of troubled debtors, an officially sanctioned but temporary standstill on the service of old claims may be needed to ensure the equitable treatment of creditors and to protect the seniority of new liquidity support to a company. Similar considerations apply in dealing with sovereign liquidity crises. There may be an unwillingness to provide new resources if these go to pay off existing creditors rather than for rebuilding the productive capacity that will benefit both new and old lenders. Thus the Paris Club has been unwilling to give liquidity relief through the rescheduling of current maturities unless the country obtains similar relief from other creditors. Similarly, the cutoff date mechanism and the preferred creditor status of multilaterals serve to give seniority to new money.

As a major source of new finance for countries with debt difficulties, a similar consideration is relevant to Fund lending. For the Fund to be confident that its lending will go to strengthen its members' balances of payments, it may need to be sure that the outflow of resources from the member is limited to the country's capacity to pay. Similarly, if the member has a hump of debt service falling due, the Fund may need indications from creditors that the debt will be rescheduled before it can be confident that the member will be in a position to repay it. Before the Fund is prepared to support an adjustment program with its own resources, it thus seeks financing assurances from the creditors and from those expected to provide new resources that this debt relief or assistance will indeed be forthcoming.

When it became clear in the late 1980s that it was no longer always possible to raise the amount of new money required to ensure scheduled payments on medium- and long-term commercial bank debt and that bank creditors were unlikely to be able to agree on a suitable rescheduling

within a reasonable period, it was agreed that international support, led by the Fund, would go ahead under certain specified conditions despite the accumulation of new arrears to these creditors. These conditions included a strong adjustment program on the part of the member, the unavoidable nature of the arrears, negotiations with a good chance of success being under way, and frequent reviews of the situation and the member's progress in the negotiations. The Fund's "lending into arrears" under these conditions effectively involved an element of sanctioning of a moratorium on certain debt-service payments.

The risk in the approach was (and is) twofold. First, there is no assurance that agreement willl ultimately be reached with the creditors (and thus that the objectives of normalizing relations with creditors and restoring creditworthiness might be delayed). Second, there is a danger that the agreement with the affected creditors, which might occur long after the disbursement of assistance and action by official bilateral creditors, will exceed the member's payments capacity, thus jeopardizing its ability to repay new assistance and channeling some of the benefit of the relief given by one group of creditors to another group.

If the international community is to sanction a moratorium, it would normally be in connection with the provision of new money to the debtor country. As far as Fund lending would be concerned, this would be to extend the practice of "lending into arrears" that is described here. While the dangers appear to have been well controlled in the case of arrears to commercial banks in the context of negotiations on the reduction of debt under the Brady initiative, they would need to be studied carefully before the practice could be extended.

Finally, the third aspect to be considered in sanctioning a moratorium is the legal effect of the sanction, if any, on the exercise of legal remedies by creditors under their loan agreements. Since the purpose of a moratorium is to give breathing space to a borrower to allow the adjustment program to work and to negotiate a restructuring with its creditors, ways may need to be found, either at the international or national level, to restrain dissenting creditors from bringing legal suits against the borrower where the moratorium has received international approval. Such legal solutions would not be easy to achieve. 1/ Such solutions would also need to be carefully weighed for their impact on the balance of rights between creditors and debtors, and thus on the cost of capital. The stricter the criteria governing the sanction and the stricter the limitation of external financial support to cases where the debtor strictly fulfilled these conditions, the smaller any harmful effect of an official sanction of a moratorium would probably be on the cost of capital.

1/ A more complete discussion of existing legal remedies that could be pursued by private creditors will be provided in a separate Legal Department note on "Legal Aspects of Standstills etc.", which will be circulated shortly.

2. Bondholders committees and international debt adjustment procedures

Even if the international sanction of a moratorium, combined with new financing, can give a country the breathing space needed for negotiations to take place and for adjustment policies to work, the ultimate resolution of the country's problems will normally depend, inter alia, on restructuring the claims. This is the context in which to consider proposals for an international debt adjustment mechanism. Do current mechanisms give sufficient assurance that debt instruments can be restructured consistently within a country's payments capacity and the assumptions on which international support is based? Once the Fund and the official community have agreed with the country on the adjustment program and the amount of new finance, is there assurance that creditors will play their part by restructuring their claims reasonably quickly?

Procedures have been established in the Paris Club that allow for the prompt restructuring of debt to participating official bilateral creditors in line with the assumptions of the internationally supported adjustment program and the debtor country's capacity to pay. 1/ For commercial bank claims, London Club procedures have evolved. These initially covered only the rescheduling of medium- and long-term bank debt, but have subsequently allowed the restructuring of other forms of debt to commercial banks, and the reduction of claims using the techniques established under the Brady initiative. It is not clear whether effective procedures exist for the restructuring of securitized debt, although the growing proportion of such debt for developing countries indicates that it may not be possible to exclude such claims from future operations. 2/

The holders of securitized debt constitute a diffuse group, and since the identity of the holders may well not be known to the debtor, it is difficult to know with whom a country should negotiate. Adding to the difficulties is the general absence of provisions in bond contracts allowing for the restructuring of the obligations with less than the full agreement of all bondholders. Consequently, negotiations to restructure bonds may be protracted, and individual creditors may be able to oppose solutions acceptable to the large majority of creditors.

It has been suggested that one means of dealing with these problems would be to establish formal bondholders committees, like those in the

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1/ Negotiations with official creditors not represented in the Paris Club may take longer to be brought to a satisfactory conclusion.

2/ The bond defaults of the 1930s took a protracted period to resolve. A few bond restructurings were accomplished during the debt crisis of the 1980s. These latter cases were all settled relatively quickly (in less than one year) compared with the earlier experience. However, the amounts of debt involved in all instances was relatively small. See Juan José Fernández-Ansola and Thomas Laursen, *loc. cit.*

1930s. 1/ However, it could be difficult to select the members of bondholders committees, and while such committees might negotiate on behalf of individual bondholders, they could not bind them. There might also have to be some flexibility in establishing the membership of the committees on a country-by-country basis because the major creditors could differ widely. 2/ In any case, the reaction of market participants to the proposal has been strongly negative, in part reflecting their hostility to anything that might make it easier for the debtor to renegotiate debt contracts.

A related proposal is for bond contracts to specify explicitly the terms for restructuring debt and the majorities of creditors needed to change the terms for all creditors. 3/ However, it could be difficult to persuade either creditors or debtors to insert such terms in future bond contracts, as it might make new claims subordinate to old claims. 4/ Even if bond committees were established and bond contract provisions modified, it might still take a considerable time to negotiate a bond restructuring.

Negotiations on the restructuring of obligations are likely to become more protracted and difficult as more creditor groups become involved. Some will be concerned that the relief they give not go to others. Different creditors may have different estimates of the country's capacity to pay. Some creditors may hold out for better deals than the ones that others are prepared to accept and have the ability to make it difficult for the debtor to settle with cooperating creditors. Some creditors may be unwilling to agree until they have seen what every other creditor group is getting. There must be a concern that restructuring the debt of a country that has enjoyed substantial access to international capital markets may take a very long time for these reasons. During this negotiation period, the restoration of normal relations with creditors, as well as the return to prosperity, could be delayed. In such circumstances, a mechanism that helps

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1/ See for example, Eichengreen and Portes, *loc. cit.*

2/ One potential way around these problems would be to have the investment banks that originally marketed the bonds strongly represented on the bondholder committees. There is some potential for conflict of interest, however, since the investment banks were originally retained by the sovereign debtors to place the bonds. Nevertheless, the investment banks are probably the best link to the actual holders of a country's bonds.

3/ See Eichengreen and Portes, *loc. cit.*

4/ Brady bonds constitute a major portion of the external liabilities of several developing countries. Any attempt to reschedule these obligations could be resisted strongly by creditors since these bonds were the product of what were viewed as exit restructurings of countries' commercial bank debts. In the event of a crisis, there may be some temptation to stop debt service on those Brady bonds carrying collateral for interest payments. Such action would buy only temporary relief, since collateral generally provides cover for only 6-12 months of interest.

promote a speedier solution may be in the collective interest of the creditors, as well as the debtor.

Experience with junk bond restructurings in the United States, however, provides evidence that solutions negotiated freely between the debtor and market participants are superior to those determined in the bankruptcy courts. 1/ Not only were the direct costs of the voluntary debt exchanges a smaller proportion of the companies' net worth than the cost of bankruptcy cases but the solutions were reached considerably more quickly. Whether this conclusion can be extended to cases of restructuring claims on sovereign debtors, where there is a different legal context for enforcing contracts remains to be seen.

To deal with the issues discussed above, an international debt adjustment mechanism has also been suggested. 2/ Such a mechanism would aim to facilitate negotiations by specifying the framework for a solution that restructures debt obligations in accordance with the debtors' capacity to pay, enhanced as it will be by the adjustment program that the country has adopted. This mechanism would be intended to help ensure that all creditors bear an equitable share of the burden of resolving the debtor's problems. It would also be intended to speed up agreement by ensuring that minority creditors were obliged to accept agreements acceptable to a suitably qualified majority of creditors in their category.

V. Some Related Issues

The proposals discussed above could involve a change in the attitude of the official sector toward a debtor's dealing with its creditors. At the limit, it could result in some change in the balance of rights between sovereign debtors and their creditors. Three questions are often posed in this context: What is the justification for official intervention in the market relations between a country and its creditors? Do proposals in this area create serious problems of moral hazard? What effect would any proposed actions have on the functioning of international markets and the cost of capital for other borrowers?

1. Market failure and official action

The question has been raised about the justification for any official intervention in resolving financial crises and in normalizing relations

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1/ See Kim Nauer, "Study: Tax Rules + More Junk Bonds + More DIP Financing = Fewer Workout Tries," *Commercial Law Bulletin*, November-December 1991; and Stuart Gilson, John Kose, and Larry Lang, "Troubled Debt Restructurings: An Empirical Study of Private Reorganization of Firms in Default," *Journal of Financial Economics*, Vol. 27, 1990.

2/ See EBS/95/90.

between debtor and creditor. The issue is often phrased (by economists) as whether there is a market failure that justifies such intervention.

A financial crisis could emerge as conditions prompt a rush to the exit (i.e., an attempt to sell assets before prices collapse further) by a broad range of resident and nonresident holders of domestic assets. As a consequence, the value of a country's financial assets would be pushed significantly out of line with their underlying value, based solely on a detached assessment of the country's economic fundamentals. The exchange rate also could significantly overshoot its equilibrium value as investors shifted from domestic to foreign assets. Thus, the potential exists for substantial overshooting because of self-reinforcing behavior on the part of investors: investors sell their portfolio of a country's assets because they expect prices to decline, and prices decline because investors sell. 1/

The market failure that could produce a run on a country's assets primarily reflects a collective action problem. A run can occur because all investors have the incentive to react to an adverse shock in the same manner or because their behavior becomes mutually reinforcing. The rush for the exits by rational creditors leads to an overshooting that is not justified by fundamentals, but which, in turn, complicates the country's adjustment problem and worsens the fundamentals.

Another collective action problem may lie in the procedures for reaching agreement with a large group of creditors. If any creditor can prevent an agreement being reached with the remaining creditors, or if a creditor's refusal to modify its claims prevents others from giving the support that would increase the return to the group of creditors as a whole, there can be a case for some official intervention in the process.

Another way of looking at the issue is in terms of completing the market infrastructure. Some of the normal institutional supports that are assumed to exist in a market are absent in the case of sovereign debt. Most obviously, the contract enforcement mechanism through the legal system is of limited effectiveness, with countries having the ability to pay or not pay more or less as they choose to bear the cost to their reputation. 2/ Creditors' most effective method of enforcing claims is probably to disrupt a country's access to credit markets or its ability to conduct normal international transactions. Normal debt markets within a country, by contrast, have both legal enforceability of contract and mechanisms for resolving claims when the contracts prove impossible to implement. Without such a market infrastructure, it is not possible to assert that the solution produced by the free interplay of agents will produce the optimal outcome. Thus it could be desirable to supplement the current structures with

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1/ For a more complete discussion of some of these issues, see the annex.
2/ See Legal Department note on "Legal Aspects of Standstills etc.", pp. 17-25.

mechanisms that make the sovereign debt market more like a domestic credit market, in terms of ensuring the greater enforceability of contracts and the adjustment of claims in an orderly way when a country is not able to meet the original terms.

This is not to say that there will not ultimately be solutions to a country's problems if the country is left alone with its creditors for a sufficient period. Eventually, it may be possible for the country to reach agreement with a group of creditors who would otherwise be left holding only worthless paper. How long this process would take is an open question. We also cannot state with certainty that such a solution would be optimal in the sense that no other outcome could make all parties better off. The extreme market solution could run the risk of prolonged instability and loss to a large group of creditors. Governments could feel obliged to apply diplomatic pressures to try to obtain solutions favorable to their nationals; however, it may be better to avoid this and spell out rules in advance, as is done in the context of national legislation. The principle that all countries have a shared interest in resolving a country's adjustment problems in a way that does not destroy domestic or international prosperity is enshrined in the Fund's Articles. Similar considerations may exist in the area of restructuring sovereign debt.

2. Moral hazard

Another concern is that, if it is known that countries in crisis will receive liquidity support or protection from their creditors, imprudent behavior on the part of debtors will be encouraged. And to the extent that creditors expect a country to receive sufficient liquidity support to allow it to service its debts during a crisis, they may be inclined to overlend to the country or to price country risk in a way that does not reflect the country's own payments capacity. What is the merit in these arguments?

All insurance may create some moral hazard. By reducing the costs to the insured of some behavior, at the margin it promotes that behavior. Thus, insurance normally is associated with conditions to try to limit the adoption of risky behavior by the insured. The provision of insurance may be warranted, even if it promotes more risky activities, if it also results in the avoidance of other less desirable behavior or outcomes. Thus, to assess the moral hazard involved in liquidity support, sanctioned moratoriums, and international debt adjustment procedures a range of elements needs to be examined.

Procedures for providing countries with liquidity support and relief from the claims of their creditors will at the margin encourage countries to be less cautious about the policies that they follow and less careful in contracting debt. To some extent, less cautious behavior on the part of debtors may be warranted: if the fear of the consequences of a debt crisis were excessive, cautious and protective policies might be followed, inhibiting productive activity that could raise world welfare. Such

reasoning was among the reasons for the establishment of the Fund's facilities for financial support.

Nevertheless, with any provision of more insurance, there must be a well-justified fear of moving too far and encouraging imprudent activities. This can be limited to the extent that liquidity support or debt relief is linked to strict conditions for performance on the part of the debtor. Thus, as mentioned above in the discussion of the sanctioning of moratoriums, it would be important that strict conditionality be applied if moral hazard is to be limited. This conditionality might be accompanied by tougher penalties for those countries that fail to meet the conditions; for example, access to official financing might be cut off, or creditors' claims might receive more active support from their governments. When a country in financial crisis is provided financial support by the international community, it is invariably a condition that the country put in place and actively implement an appropriate economic policy program to deal with its economic situation. The strict link between policy adjustment and financial relief is an important element, not only for ensuring that a crisis is successfully resolved but also for limiting moral hazard.

Another element that would determine the extent of moral hazard incurred would be the depth of the crisis that would have to be present for the provision of support in the form of debt relief. The direr the circumstances in which debt relief is given, the less likely is moral hazard to affect the debtor's behavior inappropriately. It should be considered whether the assistance given hitherto by the international community in the form of new financing and debt relief has promoted imprudent behavior, or whether this effect has been limited by the painfulness of the adjustment. In any case, some significant pain associated with default is likely to remain a practical necessity if the moral hazard is to be limited.

The means by which financial relief is provided has the potential to create moral hazard for investors in a country's assets and may have implications for the cost of capital that countries face in international markets. Moral hazard may be created if investors believe that sufficient finance will always be provided to a country in difficulty to allow a creditor to pass through a crisis without loss. In such circumstances, they may tend to price the riskiness of such investment on the basis of the expected support, rather than on the true country-related risk. Overlending in such circumstances could even make crises more likely.

While the availability of direct balance of payments support increases the moral hazard for investors, there are factors limiting this. Creditors do not have complete assurance that they will be bailed out: indeed, they may fear that any action to facilitate debt adjustment may impair the value of their claims and thus work in the opposite direction. While a country that chooses to adopt strong adjustment policies may benefit from international support, it is not certain in advance which countries will adopt this approach and which will prefer to adopt restrictions and direct

controls. Thus, it is uncertain whether an individual country will qualify for support when the time comes.

3. Cost of capital

In the absence of mechanisms to give financial support to countries, private sector lending to those countries would be more risky. The price of international capital would be higher, and less of it would flow across borders. Thus the availability of international support almost certainly alters behavior, at least at the margin. A judgment has to be made as to whether the costs of countries' following more expansionary policies and of the somewhat lower price for cross-border risk are justified in terms of the benefits that they bring.

The cost of capital to a country reflects the risk-free cost of money for an instrument with certain characteristics on the currency's home market, plus a risk premium for the international nature of the lending, plus a premium reflecting the risk factors specific to the borrowing country. Any change in the market's expectation about the amount of liquidity support that a country would receive during a crisis, or about the ways in which payments streams on particular assets might be interrupted or restructured, is likely to affect the cost of capital to borrowers.

If the issue is the level of liquidity support (new money) that might be forthcoming in the event of a crisis, the general effect of a change is largely predictable. If international institutions and creditor governments are going to make less money available, there will be less certainty that private creditors will be made whole in a crisis. They will therefore probably charge more for their lending to compensate for this increased risk (unless they judge that the liquidity support makes it more likely that a country will experience a crisis). All other things being equal, a greater willingness of the international community to provide liquidity support will be reflected in a lower cost of capital to borrowing countries. When the risk premium changes in this way, holders of existing claims will experience a gain or a loss on their existing portfolio. For new flows, however, the change in the risk premium represents a transfer between the promisers of the liquidity support and the borrowing country.

A change in the procedures for treating claims on a country, either under moratoriums or in a subsequent restructuring, will also affect the relative riskiness of different instruments, and thus their price. It may result in a reduction in the risk premiums for claims that now bear the brunt of any moratorium or restructuring, if this burden were shared by other claims, with a corresponding increase in the premium on the latter. Market participants are clearly concerned that action in this area might result in losses to them by adversely modifying the terms of their existing claims on emerging markets.

But the main fear is probably that any new procedures will provide debtors with relief under relatively easy conditions. In effect, private

creditors fear that countries that have the ability to service their debts might choose not to do so, with the authority of the international community. Such a situation could weaken the extent to which international debt contracts are enforceable and raise the cost of capital across the board for all borrowers considered by the markets potentially to fit into this category.

Given the weakness of contract enforcement on sovereign debt through the courts, the principal means of enforcement available to private creditors is the ability to impede a country's future access to credit. Loss of creditworthiness can have a severe impact on the cost of capital to countries and to national economic agents. Thus creditors are bound to be concerned if their ability to impose this penalty is reduced. 1/ If they are not able to exert the leverage of refusing new money, their ability to collect on their claims is reduced, and the price they will charge for capital will increase.

It would thus be vital in setting up any international debt adjustment mechanism to ensure that the criteria under which it could be invoked would limit it strictly to cases where payment according to contractual terms was effectively impossible. If such a mechanism created orderly and effective procedures for creditors and debtors to work out debt restructurings in a predictable and timely manner, it might even reduce the risk premium. It would be important, therefore, to ensure that the establishment of any such mechanism was associated with a strengthening of the presumption that international debt contracts should be honored, except when this was manifestly impossible. Nevertheless, any proposed changes in procedures for the treatment of claims are likely to generate considerable uncertainty as to how they would work in practice. Until it can be shown that they do not result in a reduced ability of creditors to collect on their assets, changes are likely to result in a higher cost of capital for all borrowers that lenders consider might conceivably be affected.

VI. Issues for Discussion

This paper has looked at some of the broader economic issues relating to financial crises and the alternative approaches to dealing with them. Few definite conclusions are possible at this stage. The paper therefore poses more questions than it provides answers. Executive Directors may wish to address the following issues.

1. How do Directors see the integration of countries into international capital markets as having altered the nature of financial crises and the

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1/ This is one reason why commercial banks did not welcome the Fund's decision to lend in some circumstances to countries before they had reached agreement on the restructuring of their commercial bank debt.

appropriate ways of handling them? Do Directors believe that new procedures or mechanisms are necessary in this new environment?

2. What considerations do Directors see as governing the mixture of announced adjustment policies, external financing, and creditor forbearance in coping with the initial phases of a crisis?

3. In what circumstances do Directors consider a country may need to interrupt debt-service payments unilaterally (impose a payments moratorium) to give it the breathing space it needs for adjustment policies to take hold and to renegotiate the terms of its debt?

4. What considerations do Directors think determine the choice of obligations on which a moratorium should be imposed? Do Directors believe that it may be feasible or appropriate to limit such moratoria to non-resident holdings, to instruments issued internationally, or to debt issued by the private sector? How would Directors see the costs and benefits of a moratorium on government domestic currency debt?

5. Do Directors consider that some form of internationally agreed sanction for moratoria should be established? Under what circumstances might Directors be willing to contemplate Fund lending to a member that has imposed a moratorium on debt service to certain creditors?

6. Do existing mechanisms need to be supplemented to assure a speedy and fair restructuring of claims on debtors in line with their ability to pay? How would Directors see the balance between the interests of creditors and those of debtors in more predictable procedures for restructuring claims?

7. How would Directors evaluate the concern that the provision of external finance and creditor forbearance in support of adjustment programs to resolve crises can create significant moral hazard? How would they propose to reduce this hazard?

Investor Behavior and Potential Market Failure

Seeds of a potential financial crisis may lie in an event or a chain of events (referred to below as the "shock") that results in a shift from holdings of domestic assets (including foreign-currency-denominated domestic securities or deposits) to foreign assets. Such events may reflect economic policy mistakes or political uncertainties in an individual country or they may represent adverse external developments that significantly alter the country's external position (essentially, factors changing a country's basic economic fundamentals). Alternatively, they may simply reflect a shift in market sentiment that is unrelated to a change in the country's economic fundamentals.

The immediate effect of a shock-induced asset demand shift is selling pressures in domestic financial markets and in the foreign exchange market. The impact of these pressures on the exchange rate depends on the structure of the exchange rate system. With a fixed (or heavily managed) exchange rate, market pressures will be felt immediately in a loss of reserves. In a floating exchange rate system, pressures will be reflected in a depreciation of the currency. In either case, however, the emergence of a crisis is likely to be reflected in a substantial loss in international reserves. This is because, even in the case of a floating exchange rate, continued downward pressure on the exchange rate can be expected to prompt the authorities to intervene in the market as concerns regarding a "free fall" of the exchange rate grow.

A financial crisis could emerge as conditions prompt a rush to the exits by a broad range of domestic assets holders (both domestic and foreign investors). As a consequence, the value of a country's financial assets would be pushed significantly out of line with their underlying value based solely on a "detached" assessment of the country's economic fundamentals. The exchange rate also would significantly overshoot its equilibrium value as investors shifted from domestic to foreign assets. If, for example, some investors experience a shift in sentiment away from a country's assets as a result of a shock and they sell their holdings, significant short-run deviations in the prices of the country's assets away from basic economic fundamentals could be created. In particular, if some of these investors use past performance of a country's asset markets as a major factor in their investment decisions on the assumption that past patterns of asset price behavior will repeat themselves, shifts in investor sentiment can lead to significant overshooting of asset prices. Such investors might rely solely on the past performances of the country's economy and of its financial assets to evaluate the risk/return characteristics of those assets. In these circumstances, a decrease in demand for a country's assets which

pushes prices down could trigger further sales as investors are influenced by the price decline. 1/

Normally, other investors in the markets, who trade primarily on the basis of the country's economic fundamentals, would be expected to have an offsetting influence by buying assets which are viewed as being undervalued. However, with the possibility that further shifts in sentiment against a country's assets would compel "nonfundamental" investors to continue to sell, "fundamentals" investors face the risk that prices will fall further before eventually returning to a level justified by the country's underlying economic situation. The potential losses to the fundamentals investors, if they were to take positions contrary to the market movements and if they should be forced to liquidate those positions when prices are low, may limit their willingness to counteract the effects of sales by other investors. Moreover, rather than counteracting movements in prices away from economic fundamentals, fundamentals investors might find it profitable to go along for a while with a shift in market sentiment against a country's assets even if they know this shift runs counter to fundamentals. 2/ Thus, the potential exists for substantial overshooting of prices in domestic asset markets--and as a consequence, significant overshooting in the foreign exchange market--because of self-reinforcing behavior on the part of investors: investors sell their portfolio of a country's assets because they expect prices to decline, and prices decline because investors sell. 3/

Alternatively, a shock that alters economic fundamentals would lead fundamentals investors to shift from domestic to foreign assets. As a consequence, a shift in sentiment against the country's assets on the part of nonfundamental investors may occur, and these investors would begin selling domestic assets as well, such that asset prices will deviate from

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1/ In some instances, this sort of "trend chasing" by investors might be a reasonable investment strategy, particularly if price movements caused by such trading are difficult to discern from those movements reflecting trading on the basis of economic fundamentals.

2/ See J.B. De Long, A. Shleifer, L. Summers, and R. Waldmann, "Positive Feedback Investment Strategies and Destabilizing Rational Speculation," *Journal of Finance*, Vol. XLV, No. 2 (June 1990).

3/ In this regard, large scale shifts in investor sentiment against a country's assets do not require that all investors shift their views of economic fundamentals in the same way as a consequence of an economic shock, or even that investors form views of fundamentals at all. If some investors find it less costly to spot trends in investor sentiment than to learn about fundamentals, very small events could trigger large shifts in asset preferences. For a more complete discussion of "noise trading" and its influence on asset prices see Steven Dunaway and others, *Private Market Financing for Developing Countries*, International Monetary Fund, November 1995, Chapter V and Takatoshi Ito, David Folkerts-Landau, and others, *International Capital Markets*, International Monetary Fund, August 1995.

their new underlying values consistent with the change in economic fundamentals. In turn, fundamentals investors may elect not to counteract the asset price deviations resulting from the sales by nonfundamental investors owing to the risks involved in taking a position contrary to the market movement. Fundamentals investors may, instead, choose to engage in further sales of the country's assets if they perceive short-term profit opportunities.

The extent to which a shock may lead to a self-sustaining run on a country's assets depends on whether fundamentals investors accommodate or reinforce the trading behavior of nonfundamentals investors that pushes asset prices (and the exchange rate) away from their underlying values. Key factors determining the behavior of fundamentals investors are whether the shock affects the country's economic fundamentals, how strongly fundamentals investors hold their views on the country's economic fundamentals, and how long these investors expect nonfundamental trading behavior to persist in pushing the prices of a country's assets away from their underlying equilibrium values. 1/ In the absence of a change in economic fundamentals arising from a shock, fundamentals investors are more likely to counteract the effects on asset prices of a shift in market sentiment by nonfundamental investors traders. 2/

The market failure that could produce a run on a country's assets primarily reflects a collective action problem. 3/ A run can occur because all investors may have the incentive to react to an adverse shock in the same manner or because their behavior becomes mutually reinforcing. While some investors may have informed views on the country's basic

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1/ There is the additional consideration that the longer a run on a country's assets (and foreign exchange market) persists, the more likely it is that the consequences of the run will produce changes in economic fundamentals. For example, persistent exchange rate pressures will place upward pressure on domestic interest rates, which may create debt servicing problems in some sectors of the economy. A sharp drop in asset prices also could adversely affect loan quality owing to a potential impact on the value of loan collateral.

2/ The distinctly different experiences of Latin American and Asian stock markets in the wake of the Mexican devaluation in December 1994 may illustrate these points. In Mexico and other major Latin American countries, fundamentals investors may have reinforced the sell-off of stocks both because of changes in economic fundamentals in these countries and/or because of increased uncertainty regarding these fundamentals. In contrast, the sell-off may not have been as persistent in Asian stock markets because fundamentals investors' views regarding economic fundamentals in these countries were not significantly affected by events in Mexico. Thus, these investors moved rather quickly to offset the selling pressures generated by a shift in sentiment against developing country securities.

3/ This factor also is often cited as part of the market failure which justifies the establishment of domestic bankruptcy procedures.

underlying economic situation, they may elect to rush for the exits along with other investors because of concerns about possible losses resulting from an overshooting of the prices of a country's assets. It is this overreaction by all investors (and the potential for creating a self-sustaining spiral) that represents a market failure.

Adding to this problem is the fact that there may be information asymmetries. 1/ Some investors in the country's assets may have less complete information sets than others, reflecting differential access to country-specific information. With less complete information on a country's economic fundamentals, these investors may be prone to dump the country's assets in the event of an adverse shock. Alternatively, the less informed investors may be surprised by a shift in economic fundamentals and may rush to the exits when the information becomes more widely known. The rush to the exits may be intensified if large blocks of investors have and trade on the basis of similar information sets. In these circumstances, there may be an increased tendency for mutually reinforcing reactions.

1/ The existence of a market failure is independent of whether there are information asymmetries. Even if there were equal access to country-specific information, investors are likely to make different uses of the information available. An investor's decision to trade on the full information set (i.e., to trade on economic fundamentals) will depend on the investor's trading horizon. The shorter the horizon, the greater the likelihood that the investor will not trade on the basis of fundamentals because such fundamentals would not generally be expected to shift significantly over a relatively short time frame.