INTERNATIONAL MONETARY FUND

Assessing the Determinants and Prospects for the Pace of Market Access by Countries Emerging from Crises

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I. Introduction

1. Considerable progress has been made in designing a broad framework for private sector involvement in crisis resolution. The principles and the operational framework that underlie the Fund's approach to securing the involvement of the private sector in crisis resolution were summarized in the Communiqué of the International Monetary and Financial Committee of the Board of Governors of the International Monetary Fund of September 24, 2000 (Press Release No. 00/54). The Communiqué states that the approach to private sector involvement "should be based on the IMF's assessment of a country's underlying payment capacity and prospects for regaining market access. In some cases, the combination of catalytic official financing and policy adjustment should allow the country to regain full market access quickly. The Committee agrees that reliance on the catalytic approach at high levels of access presumes substantial justification, both in terms of its likely effectiveness and of the risks of alternative approaches. In other cases, emphasis should be placed on encouraging voluntary approaches, as needed, to overcome creditor coordination problems. In yet other cases, the early restoration of full market access on terms consistent with medium-term external sustainability may be judged to be unrealistic, and a broader spectrum of actions by private creditors, including comprehensive debt restructuring, may be warranted to provide for an adequately-financed program and a viable medium-term payments profile."

2. During the Board discussion of the status report on private sector involvement in mid-September 2000 (EBS/00/127), Directors agreed that an assessment of a member's prospects for regaining access to international capital markets was a critical element of the framework on private sector involvement. In that context, they broadly agreed on the factors that would be relevant to making this judgment, including the characteristics of the member's economy, debt-service profile and debt stock, and the strength of the fiscal accounts and the financial system. Notwithstanding these factors, Directors called on staff to continue its work on the analytic issues involved, with a view to strengthening the ability to assess both the determinants and the pace of a resumption of market access by countries emerging from a crisis (BUFF/00/152). This paper is written in response to this request.

3. The paper is organized as follows: Section II discusses the reasons behind the loss of market access. Section III takes stock of country experiences and the limited literature on the factors that have contributed to market reentry after a crisis, distinguishing between changes in international market conditions and country-specific policies. Section IV presents the characteristics of reentry to markets, including the speed and instruments involved. Section V summarizes the main lessons and the principal conclusions of the paper, and their implications

for applying the operational framework for private sector involvement. Section VI provides a list of issues for discussion. The accompanying background paper discusses the experience of ten countries with respect to regaining market access.[1]

II. Reasons Behind the Loss of Market Access

4. An understanding of the loss of market access provides important clues on how countries may reaccess markets. Countries may lose access to international capital markets for several reasons, including: (i) changes in global financial conditions; (ii) major external crises; and (iii) domestic economic problems. Since emerging market assets are highly sensitive to conditions in global financial markets, a severe deterioration in these conditions often causes emerging market countries to lose access to capital market financing, particularly bond and equity financing. A reduction in liquidity in international capital markets that arises from an increase in U.S. interest rates or an exogenous factor such as the run-up to Y2K, may have a chilling effect on flows to emerging market countries (Figures 1–2).[2] An increase in U.S. interest rates is likely to lead to a reduction in the flows of capital to other countries by increasing the relative attractiveness of investments in the United States and lowering emerging market countries' creditworthiness owing to the higher debt-service burden.[3] The volatility of U.S. stock market prices may adversely affect portfolio flows to emerging markets, since it is likely to lead to an increase in volatility in emerging market asset prices, and worsen the risk/return tradeoff for investors.

5. A country may lose market access as a result of a major crisis or **market contagion**.[4] Contagion may arise through direct economic linkages between the countries concerned, including trade links, and the need of investors suffering losses on one country's assets to sell those in other countries to meet margin requirements or implement stop-loss requirements.[5] The worldwide market impact of the Russian market crisis in 1998 provides an especially clear illustration of this. Contagion could also occur if problems in one country cause investors to change their assessment of the risks associated with other countries' assets and

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[1] Assessing the Determinants and Prospects for the Pace of Market Access by Countries Emerging from Crises—Country Cases (background paper).

[2] See Baks and Kramer (1999).

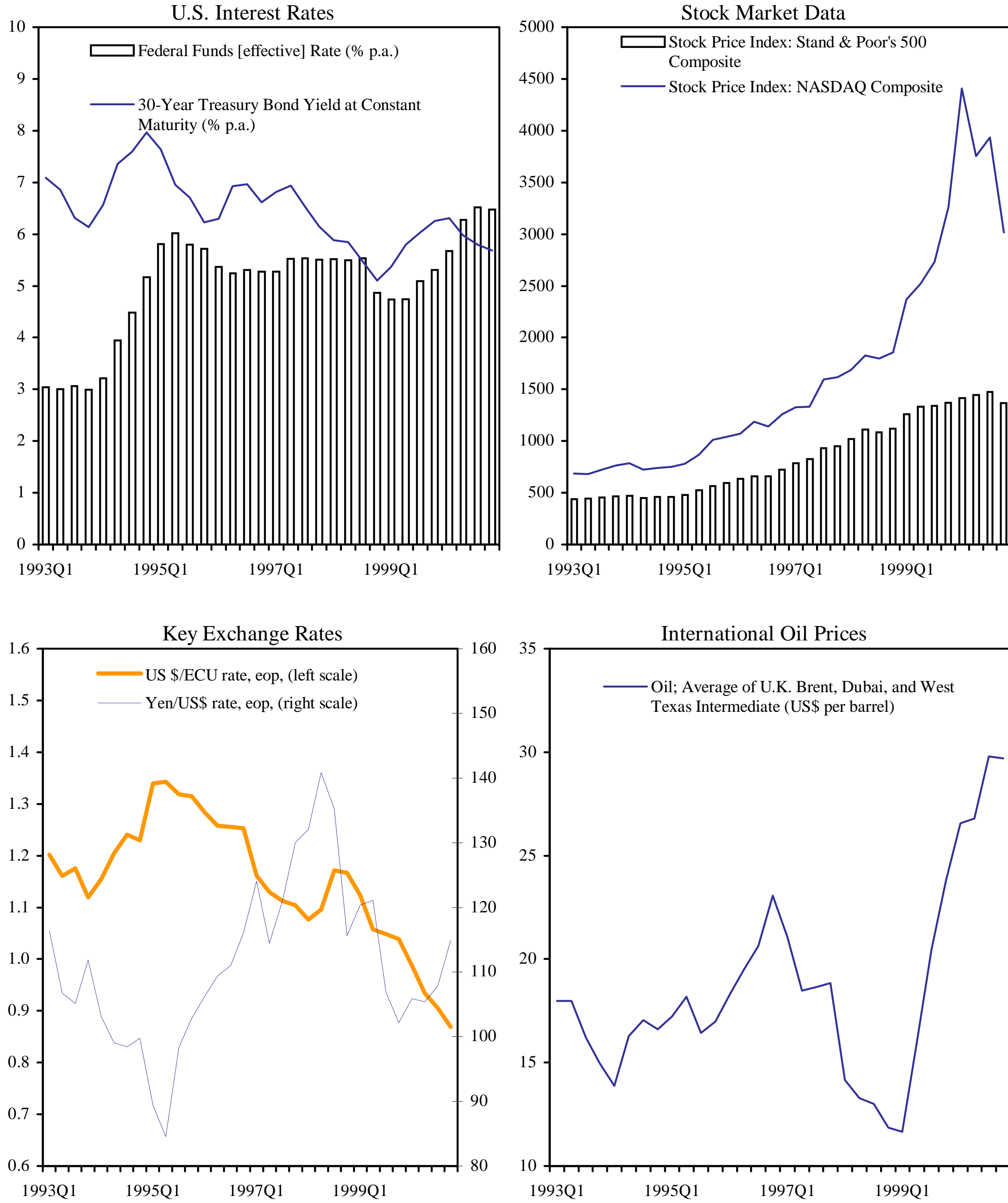
[3] See Calvo, Leiderman and Reinhart (1993).

[4] See Calvo (1999), Calvo and Mendoza (1998), Forbes and Rigobon (2000), and Masson (1999).

[5] See Goldfajn and Valdes (1998).

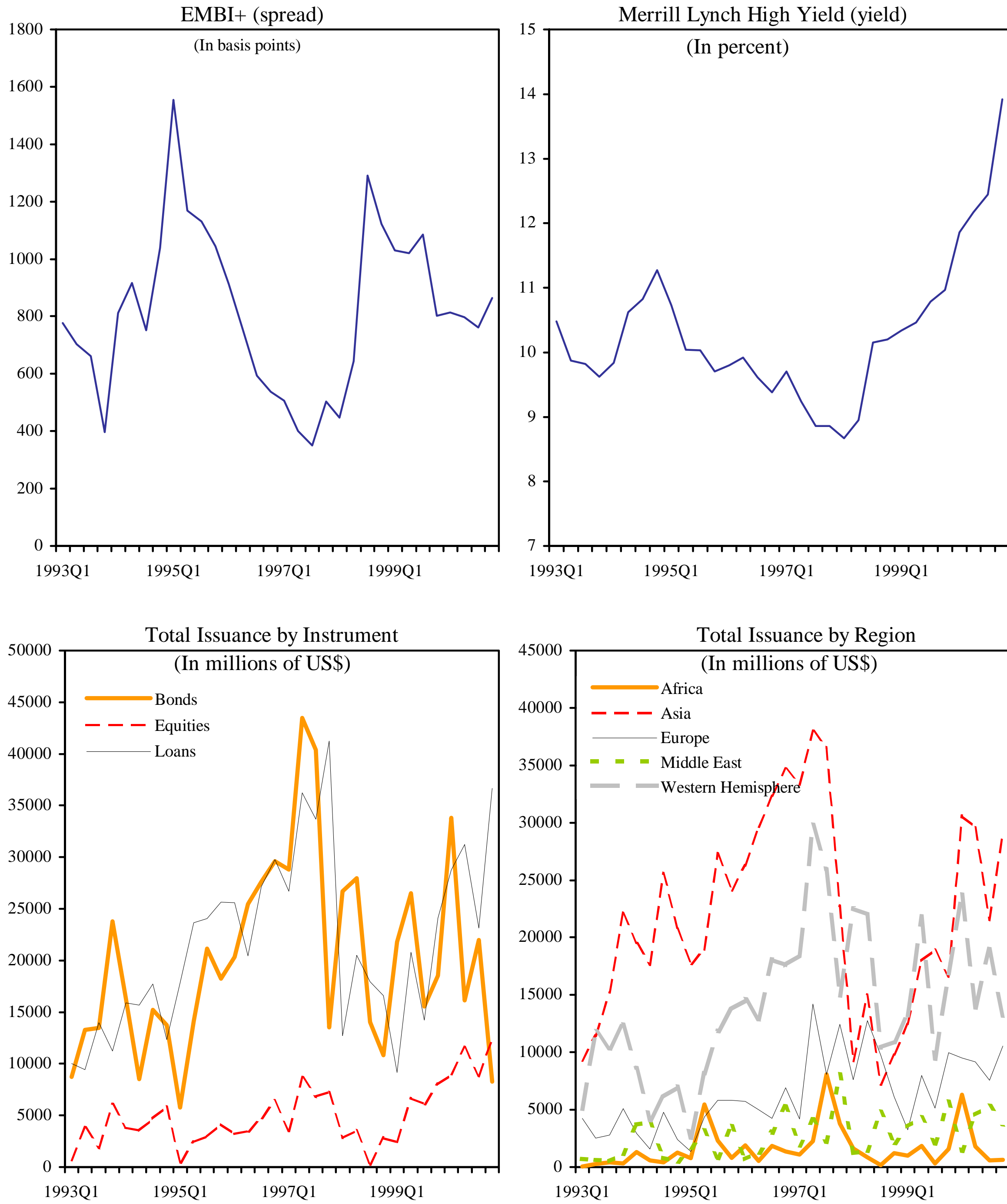
withdraw funds, even though the direct links between the countries are minimal and the factors leading

Figure 1. Global Financial Markets, 1993Q1-2000Q4



Sources: IMF, International Financial Statistics; country desk data.

Figure 2. Emerging Markets Overall, 1993Q1-2000Q4



Sources: BEL database; Bloomberg; and staff calculations.

to the crisis in one country do not apply to the other. This withdrawal of funds may then cause a crisis in the second country if it prompts herd behavior.[6] Such behavior may be the result of the extent that investors follow the actions of leading investors, or use common methods of portfolio analysis and risk assessment.

6. Countries may also lose market access as a result of domestic factors that give rise to concerns about **liquidity and solvency**. Among these factors are the country's economic situation, policy stance, and political circumstances.[7] In the context of a weak macroeconomic situation, countries with a low level of international reserves may face questions about their ability to meet debt obligations or cope with external shocks and, therefore, have difficulty in obtaining additional capital market financing. Market access may be curtailed for countries with low economic growth and a high level of debt, a highly appreciated exchange rate, or balance sheet problems of financial institutions in the form of nonperforming assets, and currency and maturity mismatches, which give rise to concerns about creditworthiness. Countries that fail to pursue credible macroeconomic and needed structural policies may also have difficulty in accessing markets. In addition, political circumstances may raise concerns about the ability of the government to implement needed policies and, thus, may damage prospects for capital market financing.

III. Restoration of Market Access—Determinants of Country Experience

7. This section deals with the process that countries go through in regaining access to international capital markets after it has been lost as a result of financial crises. Whether the initial cause of loss of access is contagion or the fundamentals of the country itself, both overall market conditions and an improvement in fundamentals can play roles in restoring access (Box 1). Among the country-specific factors which can affect reaccess, macroeconomic and structural policies, and the debt dynamics play major roles.[8] The structure of the domestic finance system and creditor-debtor relations could also be important factors. A Fund-supported program may lend credibility through its endorsement of the authorities' policies, or provide resources that directly improve the country's financial conditions, which buy time for investor confidence to improve and help accelerate reaccess to markets.

[6] See Bikhchandani and Sharma (2000).

[7] See Calvo, Leiderman, and Reinhart (1993), and Dornbusch (2001).

[8] See El-Erian (1992), and Lensink and Van Bergeijk (1991).

Box 1. Determinants of the Restoration of Market Access

As summarized in the paper, the determinants of the restoration of market access differ according to the circumstances. However, the country cases indicate that the **most important determinants** are:

- improvement in external conditions;
- adoption of credible corrective policies;
- structural reforms, including privatization and steps to increase the participation of foreign banks;
- clarity about how a country will meet its gross financing requirements and sustainability of the debt; and
- Fund support for the economic program at times.

Other determinants include:

- financial innovation;
- strong creditor-debtor relations;
- previous significant presence in international capital markets;
- role of crossover investors; and
- risks and returns on competing assets.

8. This section draws on country studies to identify the determinants and prospects for the pace of market access by countries emerging from crises (see accompanying background paper). The observations in this section are based on the experience of ten emerging market countries from 1993 to 2000, a period marked both by the reemergence of bond financing as a major source of financing for emerging market countries and by severe crises resulting from policy mistakes and external shocks. The sample includes the six largest emerging market debtors (Argentina, Brazil, Korea, Mexico, Russia, and Turkey), and four other significant but less systemically important debtors (Indonesia, Peru, Romania, and Thailand). These ten countries represent about 75 percent of J.P. Morgan Chase's Emerging Markets Bond Index Plus (EMBI+), the most widely used index of emerging market debt. Six instances of market reaccess are covered (Table 1).[9] Four of these instances followed well-known crises of emerging market countries (Mexican Crisis, December 1994–January 1995; Asian Crisis, October–November 1997; Russian Crisis, August–September 1998; and Brazilian Crisis,

[9] To identify the instances of market loss, the decline in bond issues is measured by a year-on-year decline of bond issuance, in combination with a month-to-month drop in bond placements that is more pronounced than seasonal or trend factors would indicate.

Table 1. Market Access: Bonds Issued after Restoration of Market Access

	Argentina	Brazil	Indonesia	Korea	Mexico	Russia	Thailand	Turkey
	(In millions of U.S. dollars, except where otherwise indicated)							
Mexican crisis								
1994-12	***514***	***711***	***25***	***390***	***0***	***0***	***141***	***99***
1995-01	***0***	***0***	***0***	***801***	***0***	***0***	***0***	***0***
1995-02	***0***	***0***	***0***	***899***	***137***	***0***	***0***	***0***
1995-03	***0***	***0***	***0***	***1295***	***0***	***0***	***165***	***0***
1995-04	1071	381	0	350	184	0	320	255
1995-05	0	1392	30	1872	206	0	200	0
Asian crisis								
1997-11	***175***	***0***	***0***	***0***	***0***	***0***	***111***	***0***
1997-12	***511***	***187***	***0***	***0***	***0***	***0***	***0***	***0***
1998-01	***1300***	***465***	***0***	***0***	***605***	***0***	***0***	***547***
1998-02	***2018***	***649***	***0***	***0***	***113***	***0***	***0***	***400***
1998-03	2294	4059	0	300	3144	931	0	665
1998-04	2744	435	0	4040	516	762	0	300
Russian crisis								
1998-08	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-09	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-10	***556***	***0***	***0***	***72***	***0***	***0***	***300***	***0***
1998-11	1798	75	0	133	600	0	0	361
1998-12	180	0	0	265	1500	0	0	438
Brazilian crisis								
1999-01	***0***	***23***	***0***	***100***	***0***	***0***	***0***	***444***
1999-02	1961	0	0	131	2300	0	0	555
1999-03	2151	650	0	131	1200	0	0	0
1999-04	2092	2635	0	1104	500	0	798	521
1999-05	1065	649	0	160	1070	0	0	216
Uncertainty in international capital markets								
1999-06	***1166***	***100***	***0***	***70***	***1665***	***0***	***0***	***500***
1999-07	***358***	***918***	***0***	***406***	***1700***	***0***	***0***	***0***
1999-08	697	311	0	60	0	0	0	428
1999-09	729	780	0	1127	383	0	0	200
1999-10	1932	1145	0	278	250	0	0	500
Uncertainty over U.S. interest rate policy								
2000-04	***150***	***350***	***0***	***234***	***477***	***0***	***0***	***0***
2000-05	***2341***	***75***	***0***	***332***	***0***	***0***	***0***	***0***
2000-06	659	1726	0	646	0	0	0	1928
2000-07	1525	1692	0	831	2669	75	0	1193
2000-08	1723	300	0	739	0	0	0	0

Sources: Bondware; Fund staff estimates.

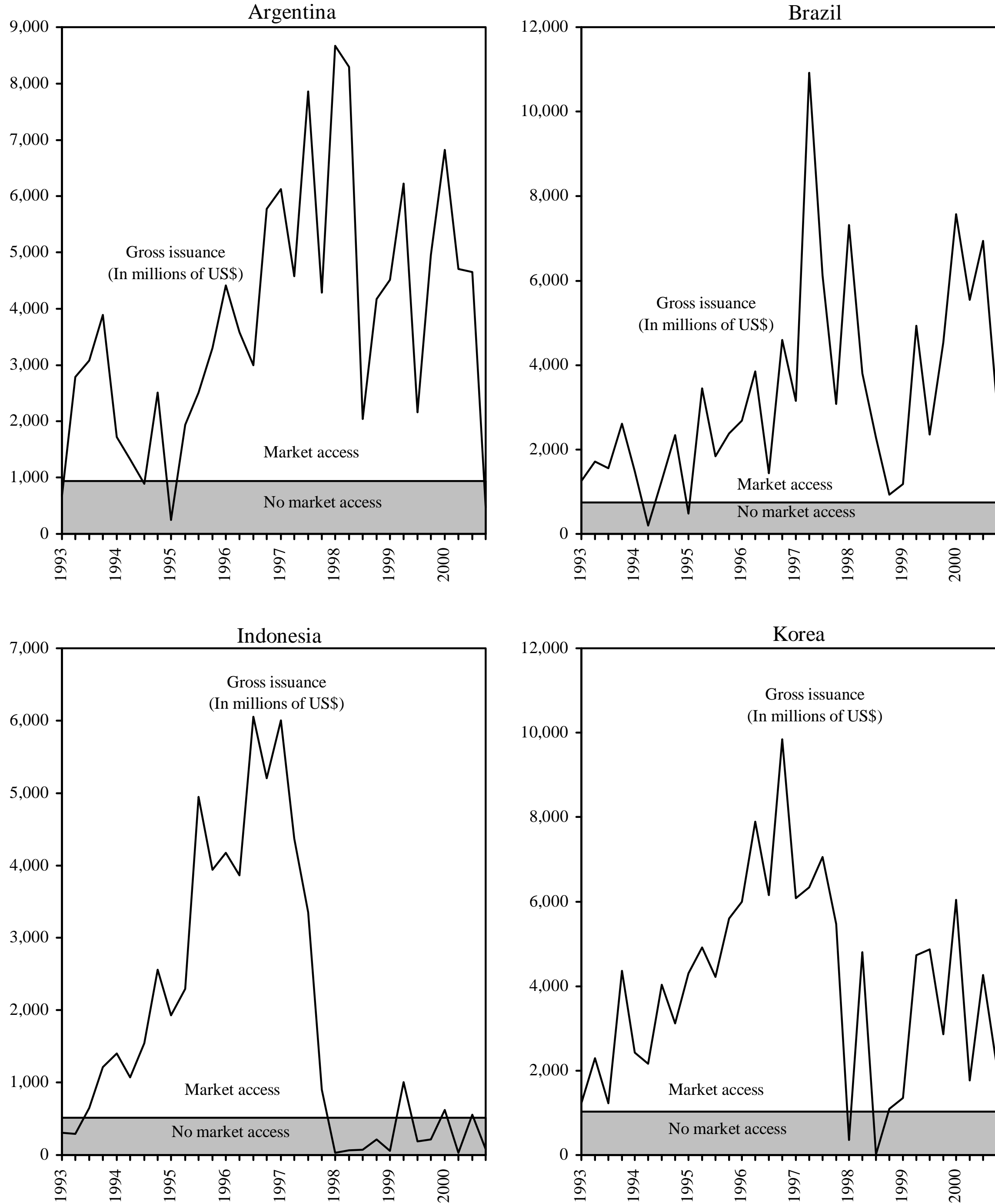
1/ The bold italics indicate the periods characterized by the loss or reduction of market access by countries analyzed in the paper.

January 1999), and two ensued following periods of uncertainty in international capital markets (June–July 1999) and about interest rate policy in the United States (April–May 2000).The information is drawn from official and private sources. Whenever available, private sources, including market commentaries and reports and specialized journals/magazines, were consulted and the information obtained given prominent weight in the country cases described below.

9. There is no universally accepted definition of market access, but for the purpose of this paper, market reaccess is defined as the resumption of capital inflows, mainly in the form of bonds and to a lesser extent bank loans, equity, and short-term credit. This paper discusses only marginally countries' access to credits from nonfinancial corporate sources, such as trade credits or foreign direct investment (FDI).[10] It explores market access through the use of broad categories of quantity-based and price-based indicators. Among the quantity-based indicators, the paper considers the following: (i) gross private capital inflows to capture the extent to which markets willingly commit to a country (Figures 3–4); and (ii) gross private capital inflows minus repayments (net capital inflows) to capture a country's ability to obtain additional external resources or the increase in external creditors' net exposure to a country. In both cases, private capital flows are measured as the issuance of bonds, equity and loans (including short-term flows). To take the price component into account, the paper uses a sub-indicator to reflect the costs associated with bond sovereign financing spreads measured in absolute magnitude and in relation to an average market index like the EMBI+ (Figures 5–6). The quantity-based indicators of market access do not necessarily complement the price-based indicators.

[10] Nevertheless, these sources of financing may be very important. Casual observation suggests that nonfinancial corporate lending can recover faster than bank lending after a crisis at times. FDI flows can increase following a crisis, and bring about market confidence that is an essential factor in a country's efforts to reaccess markets.

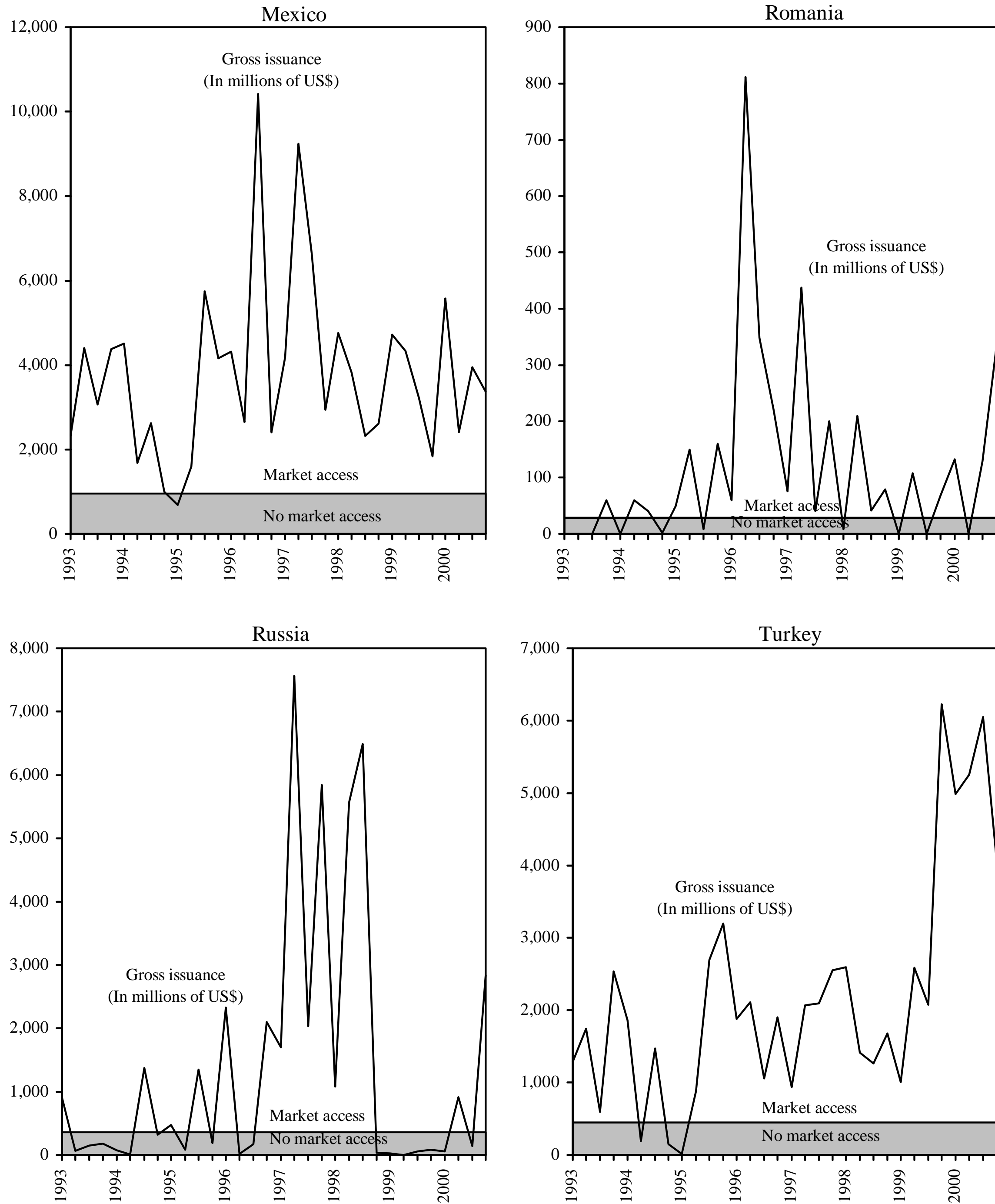
Figure 3. Market Access Indicator Based on Gross Issuance of Bonds, Loans and Equity 1/
1993Q1-2000Q4



Sources: BEL Database; and staff calculations.

1/ The market access treshold is country-specific and is based on 25 percent of average gross issuance for the sample period (1993-99).

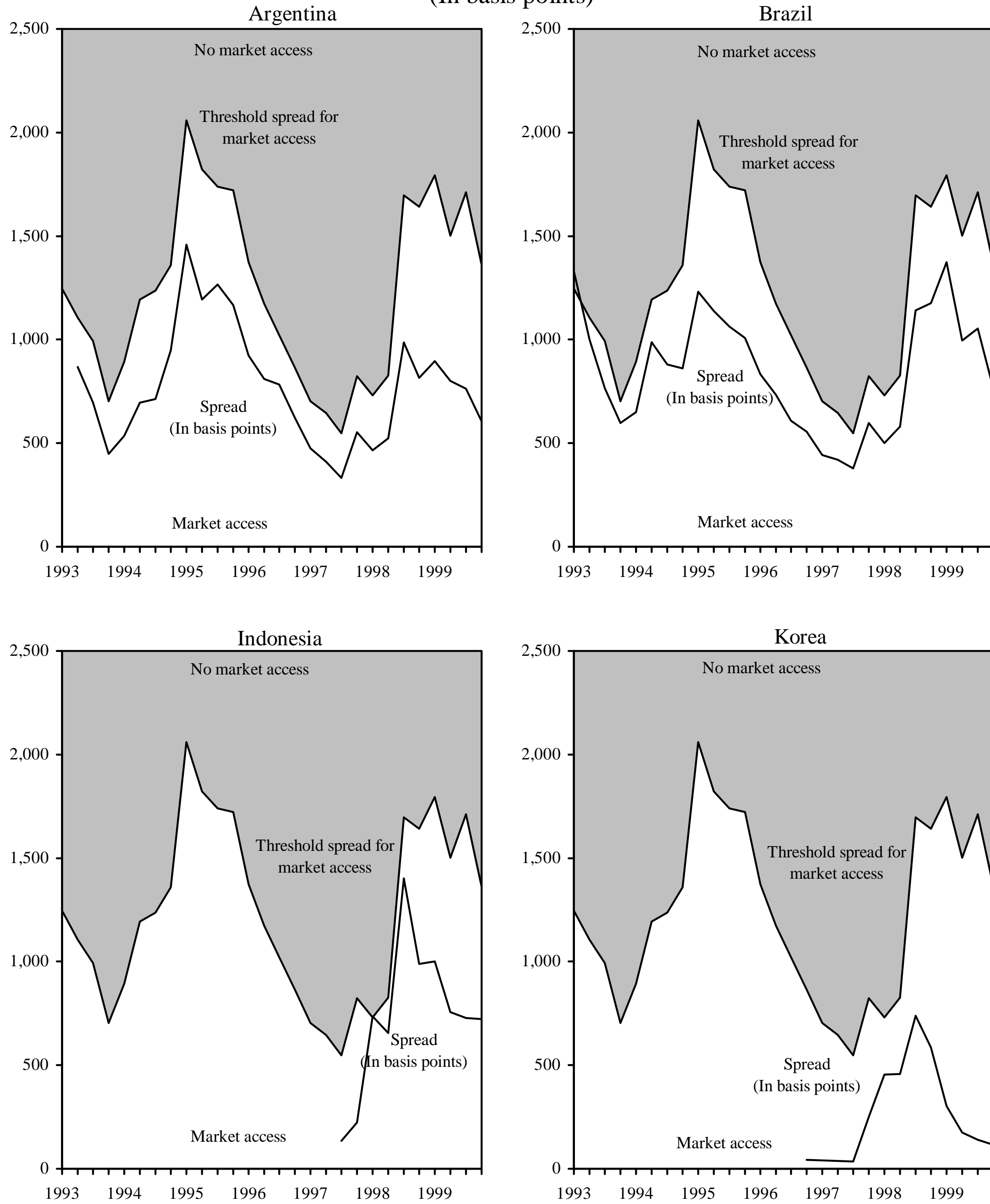
Figure 4. Market Access Indicator Based on Gross Issuance of Bonds, Loans and Equity 1/
1993Q1-2000Q4



Sources: BEL Database; and staff calculations.

1/ The market access treshold is country-specific and is based on 25 percent of average gross issuance for the sample period (1993-99).

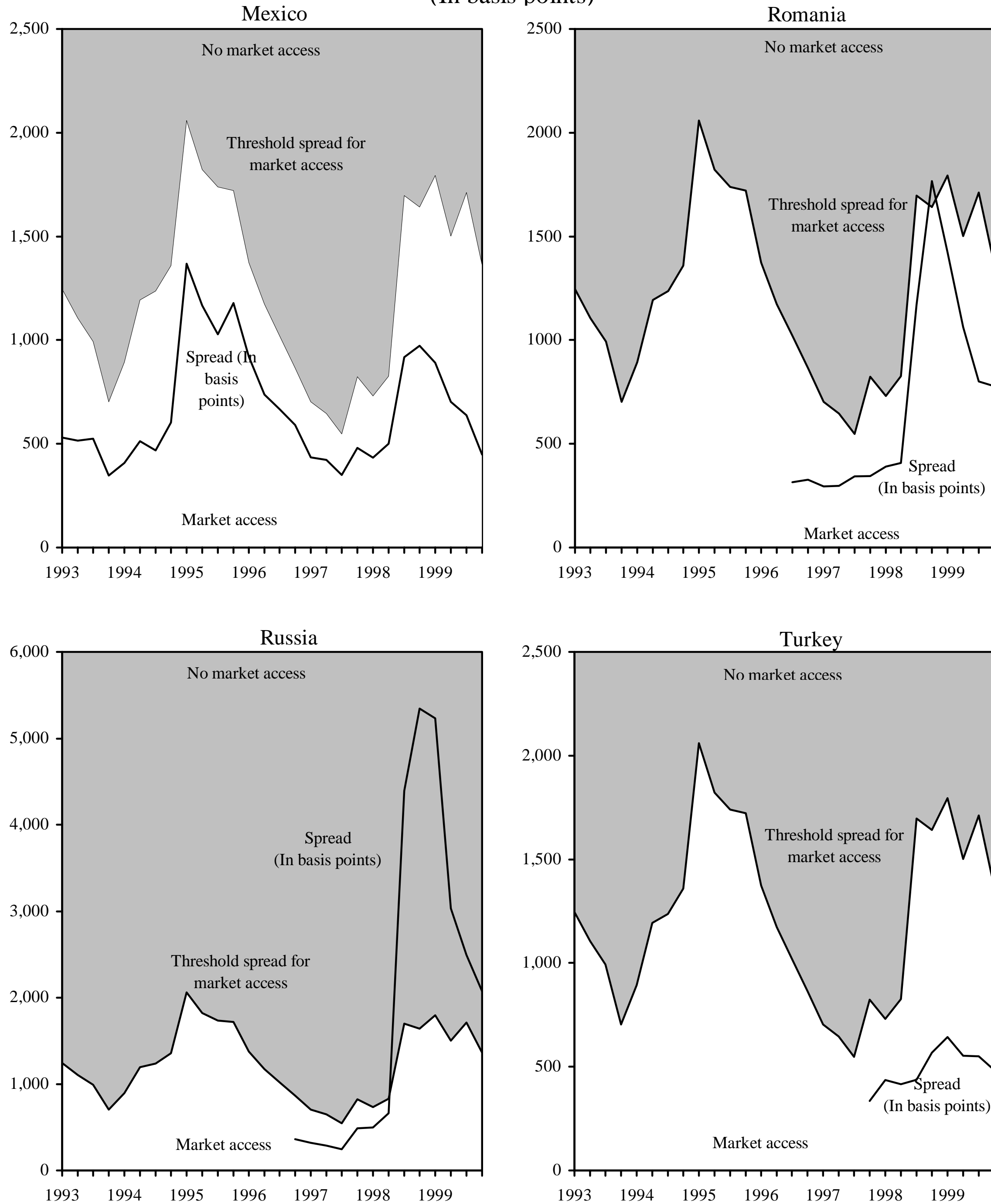
Figure 5. Market Access Indicator Based on Sovereign Bond Spreads 1/ 2/
1993Q1-1999Q4
(In basis points)



Sources: BEL Database; and staff calculations.

1/ For some countries bond spreads data are not available for earlier years.
2/ The threshold spreads for market access are linked to the EMBI+.

Figure 6. Market Access Indicator Based on Sovereign Bond Spreads 1/ 2/
1993Q1-1999Q4
(In basis points)



Sources: BEL Database; and staff calculations.

1/ For some countries bond spreads data are not available for earlier years.
2/ The threshold spreads for market access are linked to the EMBI+.

External determinants in the restoration of market access

10. Favorable **conditions in international capital markets** are of critical importance for a country to regain market access.[11] Supportive conditions in international capital markets are not only essential for the costs of issuing new debt to be reasonable, but also for ensuring that these issues do not face excessive market uncertainty. Conditions in international capital markets depend to a large extent on financial policies of industrial countries, particularly those of the United States. A decline in yields on U.S. treasury bills can raise the relative attractiveness of other investments, both in U.S. dollars and in other currencies, which in turn can increase the supply of funds to developing countries. By reducing the cost of such funds, the demand for borrowing can also increase. In this regard, the decline in yields on U.S. Treasury debt instruments brought about an expansion of international bond lending starting in 1995 that, in turn, allowed a wide range of emerging market borrowers to access markets, notwithstanding these countries' specific circumstances. Conditions in international capital markets also depend on developments in emerging market countries.

11. Countries that lose market access due to a deterioration in global financial markets or a change in market sentiment from spillover effects (i.e., contagion) are often able to return to markets quickly. After the initial panic subsides and the dust settles, investors can begin to differentiate the creditworthiness of countries. The case of Argentina in 1998 provides an example. This country was able to reaccess markets less than three months after the outbreak of the Russian crisis, after the Argentine authorities had announced their intention to stay the course and the convertibility regime showed resilience in the face of a severe external crisis.

12. The restoration of market access may be the result of **bandwagon effects** or **herd behavior** arising from market euphoria and structural changes in international finance (See Box 2). In such conditions, a country may be able to access international capital markets more easily. This could arise from two factors. First, global liquidity conditions may be loose, allowing a country with fragile economic fundamentals to tap international capital markets because investors may have become less discriminating about risks. Second, the country in question may be systemically important and have an important weight in debt indexes, requiring investors, whose performance is measured against such indexes, to allocate investment resources as required by investment guidelines. Romania and Turkey benefited from such factors. Despite having an inconsistent track record on policy implementation, Romania tapped international capital markets repeatedly from late-1995 to mid-1997 benefiting from a shift of investment resources from Latin America to Eastern Europe (at times reflecting herd behavior), and an expansion of the Samurai bond market triggered by the low interest rates and deregulation of the capital markets in Japan during this period.

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[11] See International Monetary Fund, 2001, "Emerging Market Financing in the First Quarter of 2001: Developments and Prospects."

Turkey also had market access in 1996–97, even though its record on economic management was inconsistent.

Box 2. The Bandwagon Effect

The bandwagon effect occurs when the demand for a certain bond issue feeds on itself, and generates additional demand. This could be because expectations of a strong performance by the bond offers an opportunity for quick profits or because a strong rally in a bond of a country highly represented in the main asset class indexes generates fears among investors of underperformance in relation to peers and to the index. This phenomenon has been observed in several of the issues that have marked the full reentry of a country into international capital markets after a crisis. This phenomenon, especially after a crisis, is likely due to the fact that the prices of instruments issued by a country after a crisis have a strong potential for recovery.

Examples of the bandwagon effect can be found in the bonds issued by Mexico after the Tequila crisis in July 1995, and by Brazil in April 1999. Both deals were increased from the initial amount and still left demand unsatisfied; they represented the full reopening of international markets for those countries emerging from crisis and ex post can be seen as a watershed in the post-crisis recovery.

Domestic determinants of the restoration of market access

13. While supportive conditions in international capital markets are necessary for the restoration of market access, the case studies point to the **adoption of corrective macroeconomic policies** as the single most important determinant of the restoration of market access. A tightening of fiscal policy enhances solvency, can help set the debt dynamics on a sustainable course, and, therefore, increases the likelihood of repayment, a key condition for a country to regain market access. A tightening of monetary policy is initially the most important signal of a country's intention to adopt the necessary measures to overcome a crisis, as it increases the return on investments in domestic currency and, therefore, opens up possibilities for a reflow of capital. The adoption of a realistic exchange rate policy helps ensure that foreign reserves will be available to make repayments. Virtually all countries included in the sample have had to adopt corrective macroeconomic policies at different times to regain access to international capital markets. When questions about the consistency and strength of economic policies took center stage, such a step has been a prerequisite for countries to regain capital market financing. In this regard, it is not surprising that countries that have lost market access and have not put in place corrective macroeconomic policies generally have been unable to obtain capital market financing at reasonable costs as noted in the country cases.

14. The adoption of **structural measures** is another important determinant of the restoration of market access. In addition to providing signals of the potential improvement in

economic efficiency that is critical to attract private investment, structural reforms often have a favorable effect on public finances. The role of privatization has been essential in this respect, while providing reassurances about the country's ability to meet its external financing needs. Structural reforms can also strengthen the institutional capacity to cope with adverse shocks, thereby reducing the risks that could adversely affect the repayment of obligations. In this regard, structural reforms in the financial system, including the increased participation of foreign financial institutions, appear to be of great importance. As demonstrated in many countries, but most notably in Argentina following the Mexican crisis, the strengthening of the financial system accompanied by an improvement in the regulatory and supervisory framework has been instrumental in mitigating financial pressures. This has helped provide assurances that increases in interest rates, while serving as an adjustment mechanism, would not weaken the financial system.

15. Structural reforms could take the form of addressing balance sheet problems of the financial and corporate sectors.[12] Public intervention in the banking system and payments and settlement system to address such problems may strengthen the prospects for economic activity and put the economy on a more solid footing. Such intervention could include using the strength of the public sector's balance sheet to strengthen the capital adequacy of the banking system. It could also take the form of public sector guarantees of banks' liabilities, and efforts to improve the regulatory framework. Progress in putting in place corporate workouts could also help countries returning to markets.

16. The presence of **foreign-owned banks** in the economy can raise the pace of reflows, both because banks themselves may increase the amount of funding they make available to domestic projects and because they intermediate capital inflows. They may also increase the stability of lending, both by diversifying the capital and funding bases of the domestic banking system, and through the confidence generated by the parent bank's often strong and transparent standards of accounting, financial regulation, and supervision. Goldberg, Dages, and Kinney (2000) found that in both Argentina and Mexico financial openness encouraged capital reflows, in contrast to the slow reflows to some Asian countries where foreign-owned banks played a less prominent role.

17. The announcement of corrective measures may not be sufficient to generate the market confidence required for a country to regain market access. In this context, the **initial results of an economic program** are an important determinant of the restoration of market access. These results not only provide reassurance that the policies put in place are indeed appropriate for addressing the crisis, but also help reestablish the authorities' credibility. This appears to be of particular importance to countries that have not been successful in previous efforts to tackle imbalances. Korea illustrates this point. The announcement of an economic

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[12] See International Monetary Fund, 2001, "Involving the Private Sector in the Resolution of Financial Crises—A Balance Sheet Approach," forthcoming.

program supported by the Fund and the official international community in early-December 1997 had a short-lived positive impact on market confidence. However, as concerns about the authorities' commitment to the program and information that the economic situation was worse than expected became available, market confidence waned and capital outflows resumed. To address this situation, Korea reached an agreement with international banks and their supervisory authorities to roll over their trade and interbank credit lines, while negotiating a comprehensive debt restructuring agreement with commercial bank creditors. Only after it became clear that the agreement to roll over credit lines had succeeded in slowing capital outflows and the current account balance began to shift from a deficit to a surplus, did market confidence return, enabling Korea to regain market access much sooner than expected by analysts.

18. The initial results of the economic program need to show progress on several fronts. While a pickup in economic growth, decline in inflation, and a turnaround in the external trade balance help measure this progress, the markets are most impressed by an improvement in the liquidity and solvency of countries. In this regard, the initial results need to show an increase in international reserves, which not only indicates an improvement of liquidity, but also demonstrates that the large outflows at the outset of the crisis are being addressed in a satisfactory manner. The initial results also need to show that the debt dynamics are on a more sustainable path and, therefore, the likelihood of repayment has improved.

19. Indications of **how a country will meet its gross financing requirements** are an important factor in the restoration of market access. Clarity about the sources of financing provides reassurance to private creditors that the country has the necessary resources to meet its debt-service obligations. This factor is particularly important when a country is emerging from a major crisis (Mexico, 1995; Korea, 1998; and Brazil, 1999) or a country relies heavily on international capital markets (Argentina, 1994). In this context, the **debt burden** of a country could be critical. If the debt burden is sustainable, the country generally is more likely to regain market access.

20. The normalization of an irregular debt situation may be an important consideration in this regard. However, the effects of a restructuring of debt obligations as part of this process on the pace of reaccessing markets are difficult to foresee. Although the recent examples of restructuring of bonds are few and it is not yet possible to draw definitive conclusions, it appears that countries that restructure bonds return to markets only after a long time. Countries such as Russia, Ecuador, Ukraine, and Pakistan that resorted to restructuring their obligations in recent years, have yet to come back to international capital markets. Studies of the debt crises of the 1970s and 1980s[13] indicate that countries which defaulted on bank loans were not able to reaccess capital markets until the uncertainty over their negotiations with

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[13] See Ozler (1992).

creditors were resolved, and that a country's payment history affected its subsequent market access.[14]

21. The **implementation of a Fund-supported program** may in itself be an important dimension to the restoration of market access. How Fund arrangements help a country regain market access may vary according to the circumstances of the crisis, and according to the degree of ownership shown by the country. If a country's loss of access was the result of pure contagion, but the macroeconomic fundamentals of the country are sound, the Fund support may have little impact on markets' willingness to provide new funds. In cases where the structural conditions of a country are fundamentally sound, but macroeconomic policy weaknesses contributed to the loss of market access, the catalytic role of a Fund arrangement may be greater. It may provide the market with confidence that the policy adjustments have been made, which will allow external obligations to be serviced. This, in turn, may lead to faster market access. On the other hand, when a country is afflicted by structural problems on many fronts, Fund support may not prove immediately catalytic given the time that it takes for these structural problems to be convincingly addressed.

22. The market's reaction to the announcement of a Fund arrangement is likely to reflect many factors, including the market's initial judgment on the credibility of the program, on the authorities' commitment to carrying it out, and on the information on the scale of economic problems that may become known while Fund discussions are taking place. However, it has not been possible to determine conclusively the effect of Fund support on a country's market access. In their review of Fund programs, Schadler et al. (1995, a and b) found that only about half of the countries studied received increased capital inflows. Dhonte (1997) found that the reentry to the market by Latin American countries was in part due to the Fund arrangements that were put in place. Bird and Rowlands (1999) concluded that it is difficult to determine if indeed Fund supported programs achieve the catalytic effect of helping restore a country's access to foreign financing. Conway (2000) found that participation in Fund programs leads to an increased probability that the country will leave a crisis (and, therefore, regain market access). He also concluded that continued reliance on Fund program reduces this effect. Eichengreen and Mody (2000), who analyzed the effects of Extended Fund Facility arrangements on the terms of private sector access, found that only developing countries with intermediate credit ratings achieved reductions in the interest rate spreads of their borrowing. Neither those countries with high credit ratings nor those with low credit ratings achieved reductions. Eichengreen and Mody (2000) argued that the countries in the intermediate range benefited from the perceived commitment to reform, while countries with high credit ratings already had credibility and the market did not regard the programs of those with low ratings as credible.

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[14] See Fernández-Ansola and Laursen (1995).

Other determinants of market access

23. Experience suggests that **financial engineering**, including credit enhancements, has played a role in restoring countries' access to international capital markets (see Box 3). Restoration of access to voluntary capital market financing for the Latin American countries in the early 1990s, after a prolonged and almost total reliance on debt restructuring and concerted money facilities, was facilitated by credit enhancements. In late-1999 and 2000, Mexico's PEMEX accessed international bond markets through collaterized bonds backed by future oil revenues, while Argentina, Brazil, and Mexico managed to reaccess international bond markets through various innovative Brady-swap deals. Kalsi and Mody (2000) found that efforts to manage risks played a strong role in bond financing. Nevertheless, the use of credit enhancements introduces a rigidity in the structure of the debt that is difficult to address if and when a country gets into severe financial difficulties, and could impair the country's ability to borrow on an unsecured basis. The use of credit enhancements, such as put options, could also lead to an unexpected surge in debt-service payments if market conditions suddenly deteriorate. There is also a question about how effective some of the credit enhancements may be when a country is near insolvency. Other instruments, also included in the box below, such as augmentation and swaps, do not have the disadvantages mentioned above.

Box 3. Financial Engineering

Emerging market countries have used different types of financial engineering, including credit enhancements, to reaccess capital markets.

Collateralized bonds

As a result of difficulties in accessing international capital markets, emerging market countries have at times used collateralized bonds, including future-flow securitization through export receivables to reaccess markets.

Step-ups and step-downs

Sovereign fixed-rate bonds which include a step-down (step-up) feature have coupon payments that are higher (lower) for a short initial time period, but then decrease (increase) over the medium to long term.

Dual currency notes

These notes generally take the form of paying principal in foreign currency, and interest in domestic currency. By offering the up-side gains associated with high domestic interest rates, coupled with protection against exchange rate depreciation, these instruments seek to attract foreign investors concerned about exchange risk.

Structured notes

Structured notes are fixed income securities linked to derivatives. The embedded derivative transactions are most commonly swaps, although options and futures/forwards may be used as well. The notes involve fairly complex transactions, with varying contingent payoffs that generally allow for the hedging of almost any risk.

Box 3 (concluded). Financial Engineering

Warrants

Bond warrants allow the holder of the warrant the right, but not the obligation, to buy a certain, usually long-term bond, at a pre-determined price at some future date. Warrants can be seen, from the issuers' perspective, as call options, issued out of the money (i.e., they become interesting to exercise if spreads come down before the exercise date) that can be combined with an otherwise plain-vanilla bond.

Put options

By embedding a put option in a bond, an issuer gives the holder the right to demand payment of the bond at a specified date before its maturity date. Put options can be 'hard,' that is the put date is unconditional, or can be "soft," that is exercise of the put option is linked to a specific event.

Augmentation

Augmentation refers to the reopening of existing bonds in international capital markets. The benefit of this instrument is that it reopens an existing issue, with which investors are already familiar and do not have to separately evaluate. Augmentations can also be done in an opportunistic manner and in relatively small amounts.

Swaps

Swaps can result in debt-service reductions, and improve the maturity structure of external debt by replacing short-term bond with medium- and long-term debt instruments. Swaps can also reduce debt obligations in NPV terms, and free up collateral against certain debt instruments such as Bradys.

24. **Creditor-debtor relations** may help the restoration of market access.[15] Experience has shown that efforts by debtor countries to maintain good relations with private creditors create goodwill, which may be useful in helping countries emerging from a crisis regain market access. Good relations in effect provide debtor countries with a forum to explain the objectives of their corrective economic policies, and exchange thoughts on the implementation of and risks to the program. The maintenance of such relations even in times of crisis is of paramount importance. It is widely recognized that the constructive dialogue that Mexico has maintained with its private creditors may have contributed to this country's ease of access to markets since the mid-1990s. Argentina also appears to have benefited from its strong relations with private creditors in reaccessing markets at times.

25. Creditor-debtor relations may be analyzed in the context of a **repeated game**. [16] Lenders may find it difficult to take legal action to enforce their rights, and collateral does not

[15] See International Monetary Fund, 2001, "Involving the Private Sector in the Resolution of Financial Crises: Restructuring International Sovereign Bonds." Available via the Internet: http://www.imf.org/external/pubs/ft/serie/03/index.htm

[16] See Kletzer and Wright (2000).

usually exist. However, the desire to be able to smooth future consumption through further borrowing or lending provides an incentive for the sovereign and its creditors to cooperate in dealing with the sovereign's existing obligations. Neither side's willingness to cooperate is legally enforceable, but the country's desire to preserve its reputation in order to have future market access on one side and the creditor's profit motive on the other side provides the incentive. In this context, the creditor-debtor relationship can be seen as a continuous one, even if in the short term individual debt contracts have to be renegotiated. In such a relationship, the country's maintenance of a good reputation can speed reaccess. Nevertheless, if policymakers have an unduly limited time horizon, the incentives associated with the desire to maintain a good reputation could be weakened.

26. Countries with **previous market access** often obtain private financing faster than countries with a short or sporadic history of market access. Countries that access markets with regularity are familiar with the steps needed to reenter markets, and have a well-established creditor base. Private creditors, who are likely to have invested considerable time and resources to become familiar with these countries, may be more willing to increase their holdings of assets of countries that they already know well. This may be particularly true for countries that have large weights in the emerging market indexes as investors may be penalized for missing a price rally that is likely to accompany the return of such countries to markets. Examples of such countries are Argentina, Brazil, and Mexico. The liquidity of previous issues in the secondary market may also be a factor in this regard. The more liquid the previous issues are in the secondary market, the easier it may be for a country to obtain capital market financing, since investors may buy the new issue with at least some assurance that they could sell the issue in the secondary market, if necessary.

27. **Sectoral crises** may have an effect on the restoration of market access. A financial sector crisis in an economy with a relatively robust public sector may not prevent the public sector from returning to capital markets quickly, as demonstrated in the case of Korea in 1997–98. Conversely, a crisis triggered by concerns about the public sector's capacity to meet its debt-service obligations does not necessarily hinder parts of the private sector from obtaining capital market financing (Mexico, 1994–95).

28. There are other factors that are likely to be important in the restoration of market access, although they are difficult to identify in the country studies (See Box 4). When the demand of dedicated emerging market investors may be insufficient to absorb the issues of countries returning to international capital markets, the **role of crossover investors** may be important in determining the success of such issues at times. The return on **competing asset classes** may also be a relevant factor. In particular, the performance of these assets may have a bearing on the allocation of resources to debt instruments of countries reaccessing markets at times.

Box 4. The Effect of Credit Ratings

Credit ratings affect the cost of borrowing for emerging market countries because they are an assessment of creditworthiness and because some institutional investors base the determination of their investment universe on a minimum credit rating of the issuer. Studies have suggested that credit downgrades can exacerbate the sell-off during a crisis and contribute to its severity, and highlighted an overshooting of credit ratings during the Asian crisis. However, credit rating agencies have been fairly conservative in the aftermath of the Asian crisis, typically upgrading countries only once the improvement in the economic situation had been validated by data. Studies have also identified an increasing importance of the ratio of short-term debt to reserves in determining credit ratings. However, this indicator improves only once the balance of payments position recovers because of a turnaround in the current account and renewed capital flows. It is likely, therefore, that credit rating action follows rather than leads market reentry. In this context, it seems that the role of credit rating changes in facilitating market reentry after a crisis is limited. It is also likely that after a crisis, the investors who will be first interested in purchasing debt of the country emerging from a crisis are more likely to be dedicated emerging market investors and highly leveraged institutions that have a higher appetite for risk and for whom investment constraints related to credit ratings are likely to be less relevant.

29. **Political factors** clearly affect market reaccess at times. A strengthening of a governing coalition or congressional approval of key economic legislation is likely to reduce concerns about the ability of a country to follow through with an economic strategy that improves the liquidity and solvency of a country. These developments could result in a reassessment of implementation risks by private creditors, which may enhance market confidence and facilitate countries' reaccess to markets.

IV. Restoration of Market Access—characteristics of reentry

30. The previous section described the determinants for the restoration of market access—that is, the conditions and policies that may need to be in place for a country to be able to re-enter international capital markets. This section moves on to the next step in the process by describing the characteristics or modalities of the restoration of access or reentry. Specifically, this section focuses on the speed of the reentry to international capital markets, and the spreads, maturity, currency structure, and credit enhancements of debt instruments used by countries to regain market access.

Speed of market reentry

31. The country cases suggest that the speed of market reentry depends to a great extent on the external conditions and adoption of corrective policies. When the external shock or contagion is of low intensity, countries generally regain market access quickly (in a few weeks) after an improvement in the external environment and assurances of staying the course or adopting minor corrective measures. The experiences of Mexico and Argentina at different times illustrate these points. Mexico was able to maintain market access, albeit at a reduced level, during the Asian, Russian, and Brazilian crises. While Mexico held policies unchanged in the Asian crisis, it responded quickly and decisively to events in Russia, tightening monetary and fiscal policy and providing increased emphasis on structural measures. The monetary stance was tightened again to address the minor spillover effects from the Brazilian crisis. These corrections reassured the markets of Mexico's intention to continue with prudent policies, in the process turning this country into a "safe haven" among emerging market countries. As a result of the easing of monetary policy by industrial countries and a solid policy stance, Argentina was able to maintain market access during the Brazilian crisis in late-1998 and early-1999. Argentina tapped international capital markets in November 1998 in the midst of an improving but still uncertain situation in Brazil and well ahead of other emerging market countries. Argentina also was able to place back-to-back issues in the Euro and U.S. dollar bond markets less than 20 days after the devaluation of the Brazilian real in mid-January 1999.

32. When the external situation deteriorates severely and exacerbates existing risks, countries reaccess markets after several months. The speed of entry depends on how supportive the external environment is, and how fast countries put in place corrective policies. The experience of Argentina illustrates these points. Argentina lost market access in December 1994 as events in Mexico raised concerns about the resilience of the currency board. In response to this situation, Argentina tightened the fiscal stance and took measures to strengthen the financial system that had come under severe pressures because of massive capital outflows. Argentina also sought increased official support to meet its gross financing requirements, while requesting an extension of the Extended Fund Facility for a fourth year. These steps, combined with the resilience of the currency board in what was its first major test, allowed Argentina to return to international capital markets in April 1995, less than five months after its initial difficulties in accessing markets. However, even before reaccessing international capital markets, Argentina had received large capital inflows in the form of FDI and portfolio inflows.

33. In the face of weak fundamentals, countries regain market access only after a considerable period of time. The speed of reentry depends also on how supportive the external environment is, but more importantly how fast countries adopt corrective policies that address the fundamentals and generate market confidence. The experiences of Mexico, Korea, and Brazil support these points.

- Mexico lost access to international capital markets in August 1994 as a result of uncertainties about the direction of economic policy and political events. Mexico adopted a series of corrective actions soon thereafter, including a devaluation of the peso in late-December 1994, but such actions failed to restore market confidence. Strengthened policy measures were introduced in mid-March 1995. Market sentiment began to improve subsequently, buttressed by a more favorable outlook for the markets. In this context, Mexico was able to regain market access fully in July 1995. The considerable time that it took Mexico to reaccess markets reflected the fact that market confidence was slow in returning after what had been one of the most severe crises of an emerging market country until then.

- Korea was able to reaccess markets sooner than expected by analysts, after the favorable outcome of its economic program became evident in early-1998. It took Korea only slightly more than four months to re-enter markets after announcing a policy package in December 1997.

- The economic program announced by Brazil in October 1998 led to a temporary improvement in market confidence. In the context of a failure of Congress to approve a key fiscal measure, a lowering of interest rates by the central bank, and a decision of a large state to declare a moratorium on its debt service to the federal government, market confidence dissipated. Pressures on international reserves soon reappeared, eventually forcing the central bank to change the exchange rate regime in January 1999. This step, combined with the naming of a central bank president well-known by the markets and the initial success of the economic program, allowed Brazil to reaccess international capital markets in April 1999, or only three months after the change in the exchange rate regime.

Spreads

34. The country cases suggest that countries generally reaccess markets at spreads higher than those prevailing just before these countries lost access (Table 2).[17] In cases when the loss of access results from an external shock of minor intensity, countries, while not losing their ability to issue bonds for any significant period, place their bonds at spreads that are higher than before the crisis, as shown by Mexico and Argentina. Despite the fact that Mexico had prudent policies in place, spreads on the bonds placed by the sovereign and corporate sectors increased from an average of 221 basis points in October 1997 to an average of 541 basis points in February 1998 on account of events in Asia. Spreads on bonds issued by Argentina

[17] Caution should be exercised in comparing pre- and post-crisis spreads, as the maturity of the instruments issued over this period is likely to have changed. Typically bonds issued post crisis have a shorter maturity and, thus, the implied increase in spreads for the same maturity would be even more pronounced.

Table 2. Market Access: Spreads on Bonds Issued after Restoration of Market Access

	Argentina	Brazil	Indonesia	Korea	Mexico	Russia	Thailand	Turkey
Mexican crisis								
1994-10	408	340	0	69	112	0	0	0
1994-11	408	364	0	58	383	0	181	0
1994-12	***356***	***480***	***312***	***43***	***0***	***0***	***0***	***0***
1995-01	***0***	***0***	***0***	***85***	***0***	***0***	***0***	***0***
1995-02	***0***	***0***	***0***	***46***	***0***	***0***	***0***	***0***
1995-03	***0***	***0***	***0***	***40***	***0***	***0***	***0***	***0***
1995-04	0	442	0	0	0	0	139	201
1995-05	0	445	0	46	0	0	69	0
Asian crisis								
1997-09	327	259	0	128	306	372	111	414
1997-10	221	259	0	130	221	330	0	246
1997-11	***0***	***0***	***0***	***0***	***0***	***0***	***970***	***0***
1997-12	***405***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-01	***556***	***0***	***0***	***0***	***541***	***0***	***0***	***236***
1998-02	***216***	***0***	***0***	***0***	***0***	***0***	***0***	***452***
1998-03	154	416	0	0	331	477	0	537
1998-04	669	459	0	374	409	519	0	337
Russian crisis								
1998-06	412	54	0	274	0	688	0	0
1998-07	369	0	0	0	0	1003	0	999
1998-08	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-09	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-10	***698***	***0***	***0***	***570***	***0***	***0***	***300***	***0***
1998-11	655	593	0	278	0	0	0	559
1998-12	725	0	0	0	0	0	0	284
Brazilian crisis								
1999-01	***0***	***0***	***0***	***100***	***0***	***0***	***0***	***0***
1999-02	782	0	0	0	515	0	0	587
1999-03	735	669	0	0	476	0	0	0
1999-04	648	694	0	230	434	0	0	601
1999-05	509	504	0	0	722	0	0	594
Uncertainty in international capital markets								
1999-06	***478***	***666***	***0***	***0***	***360***	***0***	***0***	***712***
1999-07	***459***	***597***	***0***	***162***	***328***	***0***	***0***	***0***
1999-08	468	540	0	0	0	0	0	474
1999-09	505	615	0	236	362	0	0	0
1999-10	456	620	0	163	0	0	0	637
Uncertainty over U.S. interest rate policy								
2000-02	640	601	0	549	0	0	0	417
2000-03	524	359	0	292	212	0	0	292
2000-04	***456***	***254***	***0***	***180***	***147***	***0***	***0***	***0***
2000-05	***404***	***263***	***0***	***126***	***0***	***0***	***0***	***0***
2000-06	433	436	0	604	0	0	0	504
2000-07	713	538	0	98	258	0	0	436
2000-08	448	337	0	101	0	0	0	0

Sources: Bloomberg and Bondware.

1/ The bold italics indicate the periods characterized by the loss or reduction of market access by countries analyzed in the paper.

(both the sovereign and corporates) also rose markedly as a result of developments in Asia, from an average of 327 basis points in October 1997 to an average of 405 basis points in December 1997. Spreads on Argentine bonds rose further in subsequent months, before beginning to decline.

35. The increase in spreads for new issues of sovereign debt instruments is also evident for countries that are severely affected by crises elsewhere or are at the center of crises. This, however, is not surprising in light of the fact that the potential risks associated with these countries, while declining from the peak of crisis as a result of the adoption of corrective policies, linger because of the uncertainties associated with undergoing an economic stabilization program. By way of example, spreads on bonds issued by Korea (1998), and Brazil (1998–99)—countries that were at the center of crises—were significantly higher when these countries reentered markets than the spreads before the crises. Spreads on Korean bonds increased from an average of 130 basis points in October 1997 to an average of 373 basis points in April 1998 when Korea returned to the markets. Spreads on Brazil's sovereign and corporate bonds rose from 450 basis points in early 1998 to an average of 669 basis points in March 1999.

Maturity

36. The country studies suggest that in periods of heightened financial turbulence and stress in the external accounts, the maturity of new bonds issued tends to shorten for countries returning to capital markets (see Table 3). This reflects the fact that costs of issuing bonds with short maturity are generally lower than those of issuing bonds with medium and long maturities. Countries in effect seek to avoid locking in high interest rates by taking advantage of the fact that yield curves generally have a positive slope. In light of the continued perception of high risks of investing in countries emerging from financial difficulties, investors also favor instruments of short maturity, or, more accurately, short duration. Instruments of short duration are less subject to market or event risk and are more liquid and, consequently, less volatile, a desirable characteristic for investors in assets of countries that are recovering from crises.

37. In periods marked by contagion or a minor external shock (for example, due to a decline of liquidity in international capital markets or a crisis in an emerging market country that has not had a major effect), the maturity of bonds placed by emerging market countries tends to shorten temporarily. The cases of Argentina, Korea, and Mexico illustrate this point. After losing market access in the Asian crisis and in the period marked by uncertainty in international capital markets and U.S. interest rate policy, Argentina reentered markets by issuing bonds with a maturity that was shorter than the bonds issued prior to these crises. In the period marked by uncertainty over U.S. interest rate policy, Korea also issued bonds with a shorter maturity than the bonds issued before this event. Despite its improving creditworthiness, Mexico issued bonds with a shorter maturity after the period of uncertainty in international capital markets in mid-1999.

Table 3. Market Access: Maturity of Bonds Issued after Restoration of Market Access

	Argentina	Brazil	Indonesia	Korea	Mexico	Romania	Russia	Thailand	Turkey
			(In number of years)						
Mexican crisis									
1994-10	6.3	3.0	0.0	3.6	3.8	0.0	0.0	0.0	0.0
1994-11	4.6	2.9	0.0	4.5	2.0	0.0	0.0	7.0	0.0
1994-12	***3.6***	***3.8***	***3.0***	***3.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1995-01	***0.0***	***0.0***	***0.0***	***4.9***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1995-02	***0.0***	***0.0***	***0.0***	***4.3***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1995-03	***0.0***	***0.0***	***0.0***	***6.5***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1995-04	0.0	2.1	0.0	0.0	0.0	0.0	0.0	10.0	2.5
Asian crisis									
1997-09	22.5	5.9	0.0	6.4	14.6	0.0	3.0	10.0	10.0
1997-10	12.0	8.1	0.0	7.2	10.0	0.0	7.2	0.0	9.0
1997-11	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***10.0***	***0.0***
1997-12	***2.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1998-01	***9.8***	***0.0***	***0.0***	***0.0***	***6.8***	***0.0***	***0.0***	***0.0***	***5.0***
1998-02	***4.7***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***7.0***
1998-03	7.2	10.0	0.0	0.0	11.5	0.0	6.2	0.0	8.0
1998-04	9.2	1.0	0.0	8.8	7.0	0.0	3.0	0.0	5.0
Russian crisis									
1998-06	11.4	10.0	0.0	3.0	0.0	0.0	5.0	0.0	0.0
1998-07	6.9	0.0	0.0	0.0	0.0	0.0	14.0	0.0	7.0
1998-08	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1998-09	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1998-10	***18.3***	***0.0***	***0.0***	***2.8***	***0.0***	***0.0***	***0.0***	***10.0***	***0.0***
1998-11	5.8	2.0	0.0	1.9	0.0	0.0	0.0	0.0	3.0
1998-12	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Brazilian crisis									
1999-01	***0.0***	***0.0***	***0.0***	***2.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1999-02	7.8	0.0	0.0	0.0	3.0	0.0	0.0	0.0	5.0
1999-03	8.3	0.7	0.0	0.0	6.0	0.0	0.0	0.0	0.0
1999-04	7.7	4.3	0.0	4.9	9.8	0.0	0.0	0.0	4.9
1999-05	7.8	1.4	0.0	0.0	8.6	0.0	0.0	0.0	4.8
Uncertainty in international capital markets									
1999-06	***4.3***	***2.0***	***0.0***	***0.0***	***5.5***	***0.0***	***0.0***	***0.0***	***10.0***
1999-07	***5.0***	***2.9***	***0.0***	***5.0***	***10.0***	***0.0***	***0.0***	***0.0***	***0.0***
1999-08	2.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0	6.0
1999-09	2.7	3.9	0.0	2.8	4.0	0.0	0.0	0.0	0.0
1999-10	2.4	5.1	0.0	2.0	0.0	0.0	0.0	0.0	5.0
Uncertainty over U.S. interest rate policy									
2000-02	4.5	18.4	0.0	8.7	0.0	0.0	0.0	0.0	4.1
2000-03	7.4	2.5	0.0	6.3	10.0	0.0	0.0	0.0	4.5
2000-04	***3.0***	***2.0***	***0.0***	***2.9***	***5.0***	***0.0***	***0.0***	***0.0***	***0.0***
2000-05	***3.7***	***2.0***	***0.0***	***3.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
2000-06	3.9	3.8	0.0	7.3	0.0	0.0	0.0	0.0	7.2
2000-07	26.2	5.4	0.0	5.0	5.3	0.0	0.0	0.0	7.3
2000-08	5.3	2.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0

Source: Bondware.

1/ The bold italics indicate the periods characterized by the loss or reduction of market access by countries analyzed in the paper.

38. Countries emerging from a crisis prompted by an internal event or severe external shock do not always issue bonds with a shorter maturity than the bonds placed before undergoing a crisis. This appears to confirm the findings in the country case studies that after having faced severe difficulties, countries return to the markets only after a substantial improvement in their economic situation.

Currency of denomination

39. To tap a broader investor base, countries reaccessing markets issue a larger variety of bonds denominated in different currencies. The diversification of currencies is made possible by several factors. First, investors across international capital markets have different views of the potential risks associated with allocating resources to emerging market assets or different risk tolerances. In this regard, the deregulation of the Japanese bond market and the opening of the Italian lira market in the second half of the 1990s were of great importance. Second, particular regulations governing the amount and structure of foreign bond issues, reporting requirements, and credit quality conditions in some markets have made it easier for countries emerging from a crisis to issue bonds in those jurisdictions. Third, countries have placed debt instruments in currencies that are attractive to a well-established investor base. Turkish bonds denominated in deutsche marks sold particularly well in Germany, where there is a large Turkish expatriate community, and these bonds benefited from a zero-risk weight in banks' portfolios in light of Turkey's membership in the OECD. When returning to the international capital markets, Turkey has typically issued bonds in the German/European market. Argentina has issued bonds in Italy under similar circumstances because of the strong receptivity to this country's bonds among Italian investors.

Financial instruments

40. Loans are an important source of financing for the emerging market countries analyzed in this paper, particularly in Asia. Loans have, at times, offset the loss of access to international bond markets. While there was a decline in loans contracted during or immediately following the loss of market access, loans increased noticeably soon thereafter and before countries were able to access international bond markets (Table 4). This was evident in Korea and Indonesia during both the Mexican and Asian crises. This was also the case with Argentina and Mexico during the Brazilian crisis. Companies in countries emerging from a crisis generally have difficulty in obtaining equity financing for a prolonged period, at times extending to years (Table 5). However, as demonstrated by Korea in mid-1999, when the market perceives that countries are on a sustainable path even after a major crisis, countries may be successful in obtaining equity financing.

41. The debt instruments issued by countries returning to international capital markets have included innovative financial structures at times (Table 6). Countries have used a variety of such structures. Put options to reduce the potential risks to investors have been used at times by Brazil to reenter international capital markets. Securitized bonds were the

main instruments used by Mexican corporations and banks to access international capital markets

Table 4. Market Access: Loans Contracted after Restoration of Market Access

	Argentina	Brazil	Indonesia	Korea	Mexico	Russia	Thailand	Turkey
	(In millions of U.S. dollars, except where otherwise indicated)							
Mexican crisis								
1994-12	***57***	***0***	***608***	***459***	***42***	***129***	***524***	***0***
1995-01	***250***	***345***	***849***	***298***	***500***	***281***	***645***	***0***
1995-02	***0***	***0***	***290***	***216***	***0***	***0***	***763***	***15***
1995-03	***0***	***130***	***792***	***645***	***46***	***191***	***601***	***0***
1995-04	250	0	526	185	139	81	372	500
1995-05	0	101	603	349	182	0	523	35
Asian crisis								
1997-11	***1695***	***638***	***157***	***553***	***240***	***3645***	***0***	***320***
1997-12	***380***	***400***	***128***	***666***	***600***	***606***	***18***	***502***
1998-01	2060	90	0	0	130	76	0	20
1998-02	273	300	0	0	400	20	50	125
1998-03	722	1750	28	0	360	50	312	551
1998-04	150	0	0	0	745	547	1000	223
Russian crisis								
1998-08	***450***	***50***	***0***	***17***	***1184***	***0***	***0***	***160***
1998-09	***0***	***0***	***0***	***0***	***135***	***0***	***0***	***160***
1998-10	***130***	***247***	***30***	***0***	***26***	***0***	***59***	***338***
1998-11	260	75	0	123	66	0	17	155
1998-12	1251	540	187	150	424	30	45	385
Brazilian crisis								
1999-01	***0***	***0***	***0***	***0***	***90***	***0***	***109***	***0***
1999-02	0	0	0	50	0	0	100	0
1999-03	200	500	0	184	1125	26	0	10
1999-04	417	896	43	145	14	0	0	250
1999-05	100	0	284	114	0	0	130	0
Uncertainty in international capital markets								
1999-06	***1382***	***650***	***217***	***18***	***1080***	***0***	***0***	***1099***
1999-07	***325***	***0***	***0***	***253***	***400***	***0***	***500***	***562***
1999-08	50	343	29	120	405	0	63	260
1999-09	0	0	159	390	170	0	8	625
1999-10	130	435	215	325	665	0	0	112
Uncertainty over U.S. interest rate policy								
2000-04	***352***	***150***	***0***	***20***	***375***	***1570***	***0***	***90***
2000-05	***286***	***50***	***0***	***503***	***500***	***24***	***0***	***399***
2000-06	720	2252	0	407	628	0	0	2124
2000-07	0	325	91	1185	0	0	325	1280
2000-08	400	225	100	457	580	0	0	527

Sources: Loanware.

1/ The bold italics indicate the periods characterized by the loss or reduction of market access by countries analyzed in the paper

Table 5. Market Access: Equity Issued after Restoration of Market Access

	Argentina	Brazil	Indonesia	Korea	Mexico	Russia	Thailand	Turkey
			(In millions of U.S. dollars, except where otherwise indicated)					
Mexican crisis								
1994-12	***31***	***111***	***0***	***0***	***72***	***48***	***16***	***0***
1995-01	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1995-02	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1995-03	***0***	***0***	***0***	***150***	***0***	***0***	***0***	***0***
1995-04	0	0	150	0	0	0	0	0
1995-05	0	59	0	30	0	0	0	16
Asian crisis								
1997-11	***0***	***0***	***167***	***130***	***0***	***0***	***12***	***0***
1997-12	***0***	***0***	***91***	***100***	***0***	***0***	***0***	***0***
1998-01	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-02	***0***	***0***	***0***	***50***	***0***	***0***	***0***	***75***
1998-03	0	0	0	0	0	0	835	212
1998-04	0	0	0	0	0	0	1104	0
Russian crisis								
1998-08	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-09	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-10	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
1998-11	0	0	0	0	0	0	0	0
1998-12	0	0	0	345	0	0	0	0
Brazilian crisis								
1999-01	***199***	***0***	***59***	***0***	***0***	***0***	***0***	***0***
1999-02	0	0	0	0	0	0	0	0
1999-03	0	0	0	754	0	0	0	0
1999-04	0	0	58	400	0	0	665	0
1999-05	0	0	405	2486	0	0	0	0
Uncertainty in international capital markets								
1999-06	***0***	***0***	***0***	***230***	***0***	***0***	***0***	***0***
1999-07	***0***	***0***	***0***	***1011***	***0***	***0***	***92***	***0***
1999-08	0	0	0	1000	162	0	0	0
1999-09	0	0	0	501	0	56	0	0
1999-10	0	161	0	0	0	0	0	0
Uncertainty over U.S. interest rate policy								
2000-04	***0***	***119***	***0***	***0***	***151***	***0***	***0***	***232***
2000-05	***198***	***14***	***28***	***0***	***0***	***0***	***0***	***150***
2000-06	0	0	0	0	1693	323	0	0
2000-07	0	350	0	0	0	65	0	1600
2000-08	0	2600	0	0	0	0	0	0

Source: Loanware.

1/ The bold italics indicate the periods characterized by the loss or reduction of market access by countries analyzed in the paper.

Table 6. Market Access: Credit Enhancements on Bonds Issued after Restoration of Market Access

	Argentina	Brazil	Indonesia	Korea	Mexico	Russia	Thailand	Turkey
	(In millions of U.S. dollars, except where otherwise indicated)							
Mexican crisis								
1994-12	***0.0***	***220.0***	***0.0***	***50.0***	***0.0***	***0.0***	***0.0***	***99.4***
1995-01	***0.0***	***0.0***	***0.0***	***26.5***	***0.0***	***0.0***	***0.0***	***0.0***
1995-02	***0.0***	***0.0***	***0.0***	***34.6***	***137.0***	***0.0***	***0.0***	***0.0***
1995-03	***0.0***	***0.0***	***0.0***	***432.6***	***0.0***	***0.0***	***0.0***	***0.0***
1995-04	0.0	67.0	0.0	172.2	0.0	0.0	0.0	0.0
1995-05	0.0	0.0	0.0	197.6	206.0	0.0	0.0	0.0
Asian crisis								
1997-11	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***50.0***	***0.0***	***0.0***
1997-12	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1998-01	***0.0***	***0.0***	***0.0***	***0.0***	***139.8***	***0.0***	***0.0***	***0.0***
1998-02	***0.0***	***100.0***	***0.0***	***0.0***	***112.9***	***0.0***	***0.0***	***0.0***
1998-03	0.0	187.9	0.0	300.0	1400.0	150.0	0.0	0.0
1998-04	80.0	50.0	0.0	0.0	235.5	0.0	0.0	0.0
Russian crisis								
1998-08	***0.0***	***0.0***	***0.0***	***18.0***	***0.0***	***0.0***	***0.0***	***0.0***
1998-09	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1998-10	***305.8***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
1998-11	200.0	0.0	0.0	0.0	1200.0	0.0	0.0	0.0
1998-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200.0
Brazilian crisis								
1999-01	***0.0***	***23.1***	***0.0***	***33.0***	***0.0***	***0.0***	***0.0***	***0.0***
1999-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1999-03	0.0	0.0	0.0	61.0	0.0	0.0	0.0	0.0
1999-04	175.0	175.0	0.0	0.0	0.0	0.0	0.0	200.0
1999-05	0.0	309.4	0.0	100.0	500.0	0.0	0.0	0.0
Uncertainty in international capital markets								
1999-06	***0.0***	***0.0***	***0.0***	***70.0***	***0.0***	***0.0***	***0.0***	***0.0***
1999-07	***148.8***	***0.0***	***0.0***	***100.0***	***225.0***	***0.0***	***0.0***	***0.0***
1999-08	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0
1999-09	25.0	0.0	0.0	77.0	383.2	0.0	0.0	200.0
1999-10	1500.0	65.0	0.0	15.0	250.0	0.0	0.0	0.0
Uncertainty over U.S. interest rate policy								
2000-04	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
2000-05	***0.0***	***0.0***	***0.0***	***194.0***	***0.0***	***0.0***	***0.0***	***0.0***
2000-06	0.0	0.0	0.0	28.0	0.0	0.0	0.0	0.0
2000-07	0.0	0.0	0.0	0.0	468.6	0.0	0.0	0.0
2000-08	0.0	0.0	0.0	362.2	0.0	0.0	0.0	0.0

Source: Bondwate.

1/ The bold italics indicate the periods characterized by the loss or reduction of market access by countries analyzed in the paper.

after the Mexican crisis. In 1997, Argentina issued a five-year U.S. dollar bond for US$500 million at a spread to be adjusted periodically through auctions. In 1998, Argentina launched floating rate accrual notes in French francs equivalent to US$1 billion, with a coupon that is reset every six months based on the spread level of this country's outstanding 2006 global bond plus 25 basis points. When there is a widening of more than 100 basis points between the coupon of the bond and a corresponding U.S. treasury debt instrument, investors receive a premium over and above the coupon based on the number of days the bond actually trades above this threshold, providing investors some protection from downward risk. As noted in Section III, liability management operations have also helped countries emerging from difficulties to reaccess international capital markets.

V. Market Access and Private Sector Involvement: Lessons and Conclusions

42. The assessment of the prospects for market access is a critical consideration in applying the agreed framework for private sector involvement in the resolution of crises.[18] This assessment inevitably requires considerable judgment, but this paper has sought to identify the main elements of such a judgment. This paper approaches this assessment in three stages: first, a study of the initial conditions or causes for the loss of market access; second, an analysis of the determinants of market access; and third, an examination of the modalities of the country's reaccess to international capital markets.

43. The limited literature on market access and the experience of the countries included in this study show that the initial conditions or the nature of the crisis that led to the loss of markets access determine the speed at which member countries can reaccess markets. Countries that lose market access as a result of adverse developments in global financial markets or a minor spillover from crises elsewhere generally regain market access quickly in a matter of weeks as the effects of such developments pass. In some cases, countries may need to demonstrate again their commitment to sound policies.

44. For countries that lose market access because of severe contagion that undermines the sustainability of domestic policies, or because of policy missteps, regaining market access generally takes many months, and, on occasion, more than a year. Countries generally reaccess markets only after the external causes for the loss of market access have largely dissipated, and these countries have adopted policy measures to address the factors that led to the loss of market access. Countries that lose market access essentially because of concerns about fundamental policies, such as the authorities' lack of commitment to carrying out

[18] International Monetary Fund, 2000, "Private Sector Involvement in Resolving Financial Crises—Status Report." Available via Internet: http://www.imf.org/external/np/pdr/sstill/2000/eng/index.htm

appropriate policies, invariably need to take steps to address such concerns to regain market access.

45. As noted in Section III, the determinants of market reaccess are many and their relative importance depends on the circumstances of the individual case. The case studies point to the following determinants as the most important:

- Improvement in ***external conditions;***
- adoption of credible ***macroeconomic policies*** that bring about an improvement in creditworthiness and lead to a sustainable external position and growth;
- renewed emphasis on ***structural reforms***, including privatization and efforts to increase the participation of foreign banks, that not only result in an improvement in economic efficiency but also strengthen creditworthiness;
- clarity about how a country will meet its ***gross financing requirements***. In this regard, countries need to ensure that the debt burden and debt-service profile are sustainable; and
- the ***support of the Fund*** for the economic program could in itself be an important dimension.

46. There may be other factors that help countries emerging from financial crises regain market access. The factors are not in themselves independent of the main determinants for market reaccess. Their importance generally depends on investors' perceptions, and tend to be more difficult to identify in the country cases. These factors include the following:

- ***Financial innovation*** could help a country regain market access. Credit enhancements could make the financial instruments of countries returning to markets more attractive, and the availability of contingent credit lines could provide assurance of their ability to withstand potential adverse shocks;
- strong ***creditor-debtor relations*** could facilitate the restoration of market access. In this context, herding or the bandwagon effect may play a role. Investors may revise their resource-allocation strategies according to the investment decisions of other investors. For instance, the success of an initial investment may then encourage investors to buy the financial instruments of the issuing country, thereby helping the efforts of this country to return to markets; and
- countries that ***have accessed the market often*** could regain market access faster than countries that have issued debt securities only sporadically. In this vein, the larger the weight of a country in the indices, the easier it may be for such a country to reaccess markets.

Other factors that could have some bearing on countries' ability to return to markets include the ***role of crossover investors***, and ***risks and returns of competing assets***. ***Political developments*** can also affect the restoration of market access. A strengthening of the government is likely to lessen concerns about its ability to adopt corrective policy measures.

47. Once the conditions and policies are in place to enable a country to reenter international capital markets, the focus of the assessment turns to the modalities of the reentry. The country cases suggest that countries are likely to reaccess markets at higher spreads than before they lost market access. The maturity of the new bonds issued by countries returning to markets is likely to shorten, and the currency of denomination of such bonds should reflect the currency preferred by these countries' most important investor base. Loans are likely to point the way for the return of countries to the markets, and the bonds issued may contain credit enhancements.

48. In sum, the analysis of the paper has relevance both to crisis prevention and crisis resolution. By considering a number of cases where market access has been a lost and then resolved, it helps to identify the different policy mixes appropriate to different circumstances if a member is to avoid running into a financial crisis. It also casts light on the expected duration of market loss under various conditions, strengthening the basis for judging the appropriate international response. Nevertheless, the paper is only a first step in analyzing the process of recovery from crises and, therefore, it is not possible to draw definitive conclusions. Under the framework for private sector involvement, the use of the catalytic approach at high levels of access is contingent on a judgment about the member's prospects for regaining market access on terms consistent with sustainability. In particular, the amount of official financing needed will be critically dependent on the speed at which market sentiment recovers. Further theoretical and empirical work will be needed before these crucial judgments can be made with strong confidence.

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