

Assessing the Determinants and Prospects for the Pace of Market Access by Countries Emerging from Crisis - Further Considerations

INTERNATIONAL MONETARY FUND

**Assessing the Determinants and Prospects for the Pace of Market Access by
Countries Emerging from Crises: Further Considerations¹**

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In Consultation with other Departments

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EXECUTIVE SUMMARY

A paper discussed by the Executive Board on Assessing the Determinants and Prospects for the Pace of Market Access by Countries Emerging from Crises (EBS/01/157 and Supplement) found that a country that loses market access because of adverse developments in global financial markets or a minor spillover from a crisis elsewhere generally regains market access in a matter of weeks as the effects of these developments subside. A country that loses market access because of a severe impact from developments in global financial markets or policy missteps generally regains market access after many months, and, on occasion, more than a year, after the external causes for the loss of market access have largely dissipated, and it adopts corrective measures.

Looking at additional evidence, including the recent experience of countries in reaccessing markets, this paper essentially confirms the conclusions of that paper. However, by itself, this is hardly surprising given the common sense nature of these conclusions. In addition, this paper points to other conclusions related to the experience of countries that restructured their external bonds, as well as to other factors that generally affect market reaccess:

- In the context of favorable external conditions, a country that restructured its bonds would be able to return to international capital markets after demonstrating a commitment to the necessary policy adjustments and recovering its reputation as a responsible debtor.
- The pace or speed for market reaccess for a country that restructured its debt would depend on how supportive the external environment is, and how quickly it adopts corrective measures, establishes a satisfactory record of economic performance, and demonstrates a willingness to meet its debt obligations.
- Recently, the time required for regaining market access for countries that restructured their bonds ranged from 18 months to five or more years after they lost market access, or from four months to four years after they completed the debt restructuring. The countries that put in place more credible policy adjustments took significantly less time to reaccess markets than those countries that took a longer time to implement a strong economic program.
- Good investor relations—marked by the dissemination of timely and comprehensive data and information about policy intentions and two-way communication between the authorities and investors—appear to be an increasingly important determinant for restoring market access.
- It is particularly important for a country emerging from a crisis to pay close attention to the design of the initial reaccess bond.

I. INTRODUCTION

1. Executive Directors discussed a paper on Assessing the Determinants and Prospects for the Pace of Market Access by Countries Emerging from Crises (EBS/01/157 and Supplement) in September 2001. Based on the experience of ten emerging market countries—Argentina, Brazil, Indonesia, Korea, Mexico, Peru, Romania, Russia, Thailand, and Turkey—in returning to international capital markets from 1993 to 2000 and the limited literature on market reaccess, that paper concluded that this assessment requires considerable judgment, as the determinants of market reaccess are many and their relative importance for the pace of market access for countries emerging from crises depends on the circumstances for the loss of market access.

2. In particular, that paper concluded that:

- When a country loses market access because of adverse developments in global financial markets or a minor spillover from a crisis elsewhere, it regains market access in a matter of weeks once the effects of these developments subside.
- A country that loses market access because of a severe impact from developments in global financial markets or policy missteps regains market access after many months, and, on occasion, more than a year. Specifically, a country reaccesses markets only after the external causes for the loss of market access have largely dissipated, and it adopts policy measures to address the factors that led to the loss of market access.
- When a country loses market access because of deepening concerns about its ability to service debt, it needs to strengthen its fiscal stance to set the debt dynamics on a sustainable course and to enhance the likelihood of repayment, which is a key condition for regaining market access. In bringing about an increase in the returns on domestic-currency assets to contain or reverse capital outflows, a tightening of monetary policy provides a clear signal of a country's intention to make the necessary effort to overcome the crisis. The adoption of a realistic exchange rate policy that is consistent with monetary policy is essential to achieve a sustainable external position.
- A country that has lost market access also needs to put in place structural reforms that not only bring about an improvement in economic efficiency but also strengthen creditworthiness.
- In addition, a country that has lost market access needs to provide clarity about how it would meet its gross financing requirements, including through the financial support of the Fund.

3. Since the discussion of this paper by the Board in September 2001, a number of developments have made it worthwhile to revisit the discussion of the determinants and prospects for the pace of market reaccess. These developments include:

- the reopening of international capital markets after a closure that lasted nearly six months in 2002, which provides factual experience to reassess the relative importance of external conditions in determining the pace of market access;
- the developments in Brazil in 2002, which highlight the importance of expectations of policy continuity as a determinant for market access;
- the return to international capital markets of three countries that restructured their sovereign bonds—Pakistan, Ukraine, and Uruguay—which provide important, albeit preliminary, lessons about the determinants and prospects for the pace of market access for countries that have restructured their sovereign debt; and
- the increasing emphasis that sovereign issuers have placed on transparency and investor relations, which makes it necessary to examine the communications strategy of countries returning to markets.

4. In this light and as requested by many Executive Directors, this paper carries forward the work on the determinants and prospects for the pace of reaccess to international capital markets by countries emerging from a crisis. In so doing, the paper relies on the recent experience of Brazil, Pakistan, Russia, Ukraine, Venezuela, and Uruguay, views of market participants, insights of the academic literature, and an econometric analysis.² Importantly, countries that restructured their external bonds have reaccessed international capital markets only in recent years.

5. This paper essentially confirms the main findings of the paper previously discussed by the Board. However, by itself, this is hardly surprising given the common sense nature of these conclusions. This paper also points to other conclusions related to the experience of countries that restructured their external bonds, as well as several other factors that would affect market reaccess. In particular:

- In the context of favorable external conditions, a country that restructured its bonds would be able to return to international capital markets after demonstrating a

² Fund staff met with emerging market asset managers (Alliance, Ashmore, BAREP Asset Management (SocGen), Discovery Capital, Allianz (DIT-PIMCO), DWS, Emerging Sovereign, and Rohatyn), traders, salespersons and analysts (Banca Intesa, Barclays, Caboto (Intesa-BCI), Citigroup, Commerzbank, CSFB, Dekabank, Deutsche Bank, Dresdner Bank, Goldman Sachs, HSBC, JP Morgan, UBM-Unicredito), representatives of capital markets groups (Goldman Sachs, Lazard Freres, Merrill Lynch, and UBS), and representatives of sovereign credit departments (Deutsche Bank, HSBC, and Natexis). Fund staff also met with representatives of credit ratings agencies (Moody's, and Standard & Poor's), and staff of HM Treasury, and the Bank of England.

commitment to the necessary policy adjustments and recovering its reputation as a responsible debtor.

- The pace or speed for regaining market reaccess for a country that restructured its debt would depend on how supportive the external environment is, and how quickly it adopts corrective measures, establishes a satisfactory record of economic performance, and demonstrates a willingness to meet its debt obligations. The speed of market reaccess would also depend on the need of a country to obtain external financing.
- Recently, the time required to restore market reaccess for the countries that restructured their bonds ranged from 18 months to five or more years after they lost market access, or from four months to four years after they completed a debt restructuring. The countries that put in place more credible policy adjustments took significantly less time to reaccess markets than those countries that took a longer time to implement a strong economic program.

The paper also finds that for all countries emerging from a crisis that:

- Good investor relations—marked by the dissemination of timely and comprehensive data and information about policy intentions and two-way communication between the authorities and investors—appear to be an increasingly important determinant for restoring market access.
- It is particularly important for a country emerging from a crisis to pay close attention to the design of its initial reaccess bond.

6. The paper is organized as follows. Section II discusses the external conditions and the domestic economic policy stance needed for a country to reaccess international capital markets. Section III describes other considerations to reaccess markets, including a communications strategy and the design of debt instruments to regain market access.

II. EXTERNAL CONDITIONS, DOMESTIC POLICY STANCE, AND MARKET REACCESS

7. **As noted in the paper previously discussed by the Board, the circumstances underpinning the loss of market access would provide a strong indication of how a country emerging from a crisis regains market access.** A country could lose market access because of a deterioration in external conditions and/or domestic economic problems. As market access is highly sensitive to external conditions (see econometric evidence in Attachment I), a country could lose access as a result of a decline in investors' risk appetite, often resulting from a reduction in global liquidity, adverse developments in markets for other risky assets, or a crisis in a major emerging market country. A country could also lose market access because of domestic economic problems that give rise to market concerns about the country's ability to meet its debt obligations. These problems could come about from a weak macroeconomic situation, an inappropriate policy stance, and concerns that the

government would be unable to garner the needed political support to put in place adequate policies.

External conditions and market reaccess

8. **Recent experience and the econometric evidence support the earlier paper's finding that a country that loses market access because of adverse developments in international capital markets would reaccess these markets once these developments subside.**³ A country would regain access to markets quickly, if these adverse developments were to lead to only a minor, temporary decline in investors' risk appetite that would have little effect on the assessment of the country's creditworthiness. However, the loss of market access would persist for a much longer period when adverse developments result in a significant decline in risk appetite.⁴ Empirical studies indicate that developments that could affect risk appetite include changes in global liquidity conditions, the economic situation of major emerging market countries, the overall issuance in mature bond markets, the price of oil, and investor sentiment (measured by implied equity volatility and corporate spreads of high-yield bonds in the United States).⁵

9. **The most recent significant example of markets closing after a fall in investors' risk appetite and then rapidly reopening took place in 2002.** From the second quarter to the fourth quarter of 2002, the international capital markets were effectively closed to new issuance by sub-investment grade emerging market countries (particularly in Latin America), reflecting to an important extent the uncertainty about policy continuity in Brazil. However, driven by an improvement in global financial conditions (Figure 1A) and more favorable prospects in some key emerging market countries, including growing confidence in policy

³ For the purpose of this paper, market reaccess refers to the actual return of a country to international capital markets. However, it is necessary to recognize that market reaccess could take place earlier because of the noticeable decline of sovereign spreads before the reaccess to markets, as shown by the evidence of the countries studied in this paper. cursory observation indicates that reaccess to international capital markets is likely to occur only when sovereign spreads are below 1,000 basis points. The horizontal market access line in the text boxes on the country cases reflect this observation.

⁴ As Gai and Vause (2004) note, risk appetite depends on the volatility of the stochastic discount factor or the marginal rate at which an investor is willing to substitute future consumption for present consumption, and a decline in risk appetite results from an increase of either investors' dislike of uncertainty about their future consumption (i.e., risk aversion) or a change in the factors that determine the overall level of uncertainty about future consumption. Cochrane (2001) discusses the relationship of risk aversion and risk appetite.

⁵ See International Monetary Fund (2003d) for a discussion of these factors.

continuity in Brazil, the markets reopened in late 2002. This example confirms the econometric evidence of the strong linkage between risk appetite and market reaccess.

Market reaccess for a country emerging from a crisis

10. **Reflecting common sense or sound practical advice, a crisis country that has lost market access could not rely only on improved external conditions to reaccess markets, but would have to adopt corrective measures.** Recent experience confirms the importance of both external conditions and domestic policy adjustments. The experience indicates that countries typically reaccess markets when overall risk appetite is in a normal range (Figure 1B), a conclusion that the econometric evidence also supports. In addition, the countries that have regained market access after losing access because of investors' concerns about their ability or willingness to service debt, have undertaken (albeit in varying degrees) the types of policy adjustments outlined in the previous paper and summarized in Section I.

11. **Under these circumstances, the time required to restore market access for a country emerging from a crisis would depend on whether the external conditions are favorable and the strength and credibility of the corrective measures.** As the experience of countries emerging from a crisis shows, at times when investors' risk appetite is in a normal range the speed of market reaccess could take from several months to approximately a year and a half.

12. **Venezuela provides an illustration of the linkages and tradeoffs between favorable external conditions and domestic adjustment.** As discussed in Box 1, Venezuela's market reaccess in 2003 was due more to the favorable external environment, the presence of a captive domestic investor base because of the imposition of capital controls, and this country's willingness to service debt than to a strong program of fiscal policy adjustment.

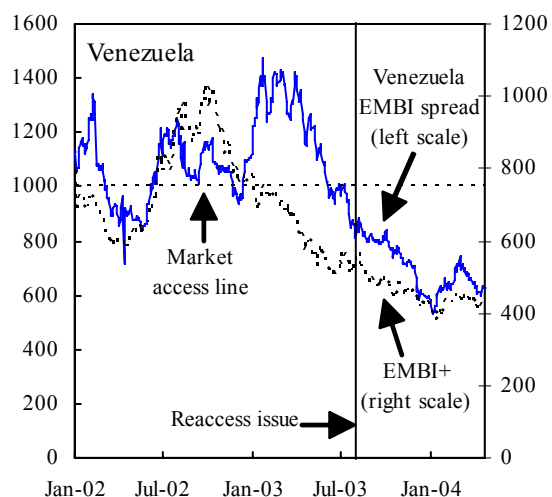


Figure 1A. JP Morgan EMBI+ and 10-Year U.S. Treasury Note
(January 2002 - November 2004)

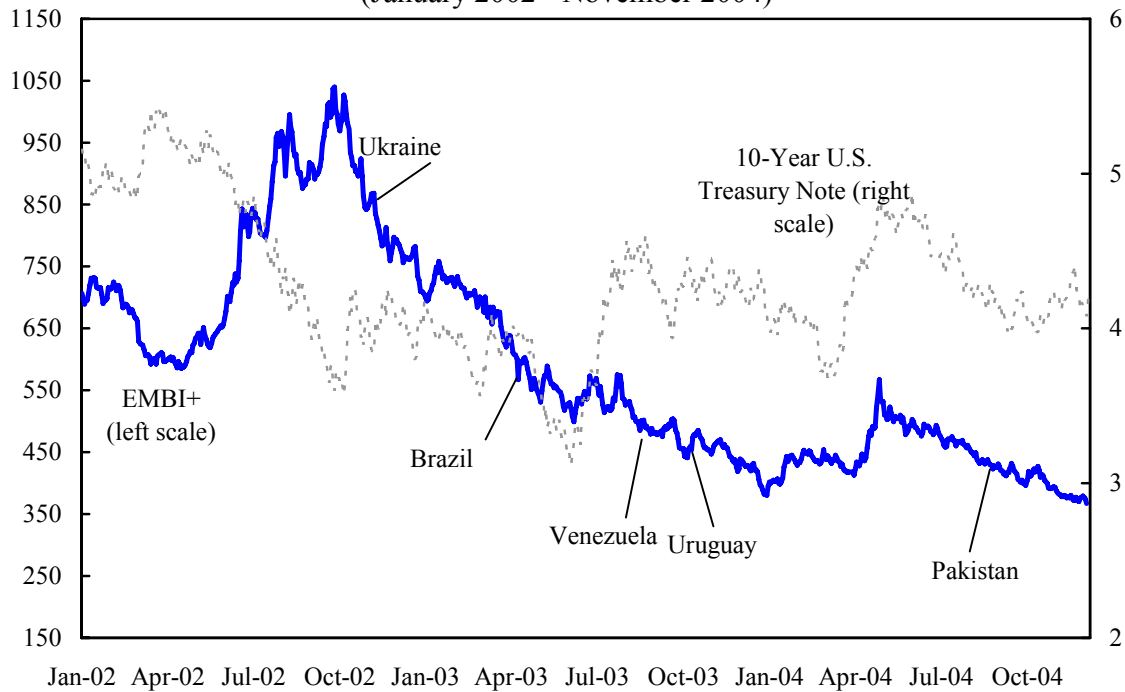
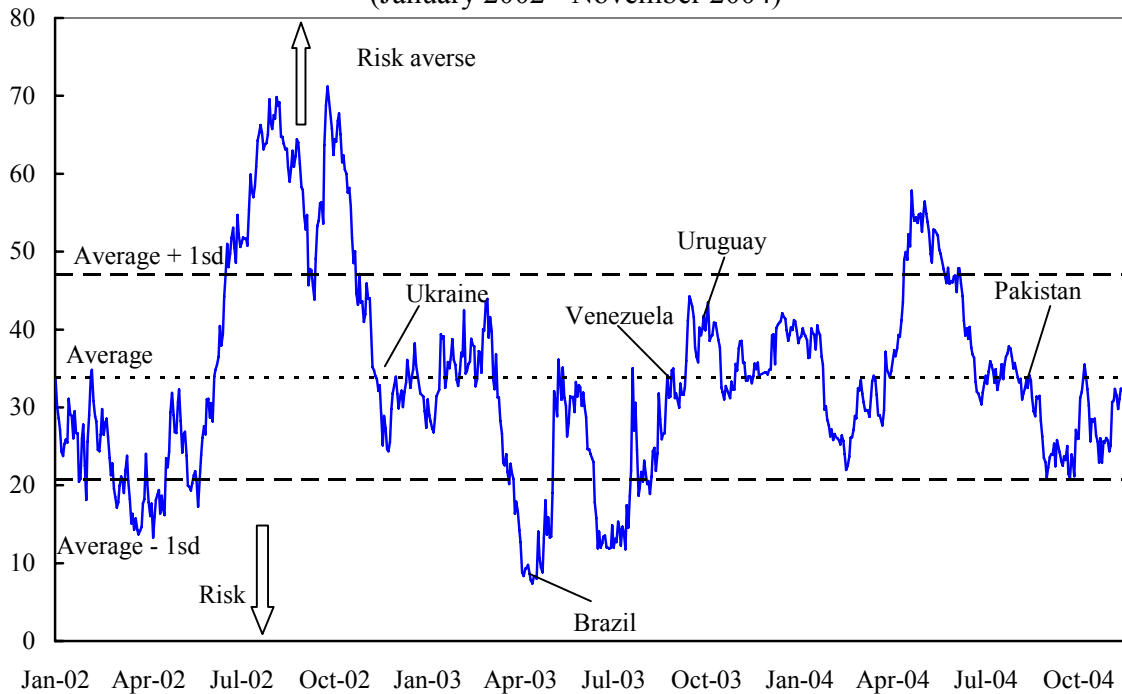
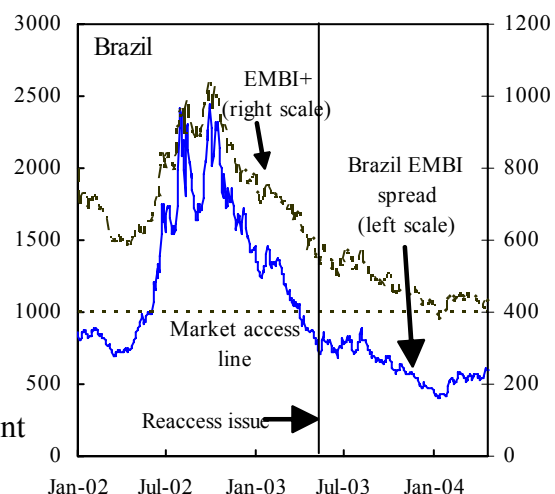


Figure 1B. Liquidity, Credit, and Volatility Index (LCVI) - Overall Indicator
(January 2002 - November 2004)



Sources: Bloomberg and JP Morgan.

13. **The case of Brazil (Box 2) illustrates that a country that loses market access because of concerns about policy continuity would regain access once it commits itself to continue with the implementation of the policies in place.** Uncertainty surrounding policy continuity in the light of the upcoming presidential elections, combined with difficult external conditions, led to a deterioration in the outlook for Brazil's economy beginning in the second quarter of 2002. Access to international capital markets came to a halt in July 2002. In response to this situation, the authorities focused on the implementation of sound macroeconomic policies, sought additional support from the Fund, and gained the commitment of the main presidential candidates for the continuation of the policies. This led to a restoration of confidence, thereby opening the way for Brazil to reaccess markets.



Market reaccess for a country that undertook a debt restructuring

14. **As the recent experience and econometric evidence indicates, a country that undertook a debt restructuring would regain market access after it demonstrates a commitment to policy adjustments and regains a reputation as a responsible debtor.**⁶ These factors are similar to those discussed for a country emerging from a crisis, but differ only in relative emphasis. In the context of favorable external conditions, a country would have to adopt strong corrective measures to restore market confidence in its ability to meet its obligations. In light of the fact that creditors had to accept a reduction in contractual claims in the debt restructuring, this country would have an additional burden in rebuilding its reputation as a responsible debtor. The adoption of corrective measures by itself is unlikely to generate an immediate recovery of market confidence or rebuilding of its reputation or trust. A country that restructured its sovereign bonds would then have to build a

⁶ Since 1999, six countries have completed debt restructurings. Of these countries, three countries have completed pre-default debt restructurings (Pakistan, Ukraine, and Uruguay), and three have completed post-default debt restructurings (Ecuador, Moldova, and Russia). The countries that have completed pre-default debt restructurings have reaccessed international capital markets. The three countries that have undergone post-default debt restructurings have yet to come back to these markets. However, Russia has been in a position to return to these markets for some time, and, as of the preparation of this paper, Ecuador appeared to be readying to reaccess these markets.

track record of good economic performance and to meet its debt service obligations to restore both market confidence and trust.

15. **The pace or speed of market reaccess would depend on both the external environment and the success of the policy efforts.** At the time of the initial restructurings of sovereign bonds, particularly in the case Pakistan, market participants anticipated that these countries would remain out of the markets for a long or an indefinite time. However, Pakistan, Ukraine, and Uruguay have reaccessed international capital markets, Russia has refrained from issuing sovereign bonds even though it could have done so since at least late 2001, and Ecuador appears to be actively preparing to reaccess markets in the near future. This has represented a rather wide range of 18 months to five or more years for countries that restructured their bonds to restore market access after they lost access, or four months to four years after they completed a debt restructuring (Table 1). Thus, even in the context of favorable external conditions such as those prevailing in recent years, restoring the ability to reaccess international capital markets for a country that undertakes a debt restructuring could require a considerable period of time.⁷

Table 1. Length of Loss of Market Access Following a Restructuring of Bonds

	Loss of Market Access	Year of Reaccess	Years Without a New Issuance
Ecuador	1999
Moldova	1998
Pakistan	1998	2004	6.8
Russia	1998
Ukraine	1998	2002	4.7
Uruguay	2002	2003	1.5
Average number of years without issuing following a restructuring			4.3

Sources: Bondware-Capital Data; and Fund staff estimates.

1/ The city of Moscow accessed international capital markets in October-December 2001.

⁷ It is necessary to recognize that those countries that have not had a need to reaccess international capital markets have waited for some time to come back to these markets once their spreads fell to levels consistent with market reaccess.

Box 1. Venezuela: A Return to International Capital Markets

Venezuela's economic situation deteriorated sharply amidst political uncertainty and social unrest over several years. Aggregate output contracted close to 10 percent in 2002 (and a further 25 percent in the first quarter of 2003). Sovereign spreads increased significantly to 1,200 basis points during the first quarter of 2002, and access to international capital markets was curtailed for the year as a whole in 2002.

In February 2003, Venezuela imposed capital controls to halt capital outflows. U.S. dollars could only be obtained from an official exchange agency at the fixed exchange rate of Bs. 1,600 per U.S. dollar and (Bs 1,290 from February 2004, and Bs 2,150 from March 2005). The introduction of capital controls led sovereign spreads to peak to around 1,400 basis points in March 2003. While excess demand for U.S. dollars by importers pushed up black market rates (to Bs. 2,600 per U.S. dollar in August 2003), the exchange controls have allowed the government to increase foreign reserves. In the face of the very high levels of short term domestic debt, the government faced some difficulties in rolling over domestic debt. Nevertheless, the high (and increasing) levels of international reserves assured smooth and timely payment of foreign debt obligations, which provided the justification for Standard and Poor's to upgrade Venezuela's credit ratings in early June 2003.

To overcome its financing difficulties in the context of rising oil prices, Venezuela used swaps, extension of terms and payment of principal through new notes. In early 2003, Venezuela secured external financing of about US\$1.1 billion through private placements, which eased the financing pressures significantly. (Scheduled amortization was US\$2.9 billion in 2003, significantly above 2004-05 levels.) To smooth the hump in foreign debt service and to take advantage of declining spreads, Venezuela bought back US\$1.5 billion in Brady bonds by selling domestic dollar-denominated debt negotiable after 40 days with an interest rate of 5.25 percent and maturing in 2010. The swap reportedly lowered debt-service payments by close to US\$200 million in 2003, while shifting the principal payments to 2010. Domestic investors flocked to the issue as they saw it as a source of foreign exchange since the bonds could be bought in domestic currency. At the prevailing black market exchange rate, the conversion back into local currency of the bonds had an implicit yield of about 12 percent. The issue appeared to ease somewhat the demand for foreign exchange in the black market.

The private placements and the debt buyback helped Venezuela meet to an important degree its financing requirements, although the share of dollar-denominated domestic debt increased. Following a non-deal roadshow, the government issued a new global bond in early September 2003. The issue had a 10-year maturity, and carried a spread of 819 basis points over the comparable U.S. Treasury debt instrument. The initial offering was largely oversubscribed with a total of US\$700 million placed, but it was later re-opened for a further US\$850 million, of which US\$470 million was placed with foreign investors and the rest with domestic investors. This issue appeared to confirm investors' views that the little debt maturing in the next three to four years, the significant savings in interest payments, and, most importantly, the foreign exchange controls give Venezuela the necessary resources to fulfill its debt-service obligations.

Box 2. Brazil: A Return to International Capital Markets

Uncertainty surrounding policy continuity prior to the election, combined with a difficult international environment due to the uncertainty in Brazil and potential spillover to other Latin American countries, led to a significant deterioration in financial market variables beginning in the second quarter of 2002.

Access to international capital markets by both the public and private sector came to a halt in July 2002, and access to domestic markets was restrained, creating serious challenges for debt management. The rollover rate on domestic public debt fell below 50 percent, and the average maturity of newly issued debt declined to around 12 months, causing a decline in the average maturity of the stock of domestic public debt from 36 months to 32 months and an increase in foreign exchange-indexed debt. In response to this situation, Brazil and the Fund reached agreement on a 15-month Stand-By Arrangement for the equivalent of US\$30 billion.

Brazil focused on implementing a set of core policies to restore confidence. Brazil increased the primary surplus target by $\frac{1}{2}$ percent of GDP to $\frac{4}{4}$ percent of GDP for 2003 (increasing to $\frac{4}{2}$ percent of GDP for 2004 as conditions permitted), and embedded this target into the medium-term budgetary framework. Tax reform and pension reform were given the highest priority on the reform agenda. Brazil also focused on debt management policy. First, the government met domestic investors' desire for shorter maturity, less volatile positions by rolling over maturing domestic debt into shorter-term debt. The government also swapped longer-maturity bonds for shorter ones. Even though these operations increased potential rollover risk and overall vulnerability, they stemmed outflows from domestic investment funds since they helped reduce portfolio volatility and losses resulting from the large price declines in longer-term bonds.¹ Second, the government continued to provide FX hedge to the corporate sector through a policy of full rollover of principal of domestic dollar-linked instruments.² Finally, the authorities also used the depressed prices on external debt to reduce rollover risk in external debt markets by repurchasing US\$3 billion in outstanding principal across various maturities. The main components and goals of the policies and reforms were consistently communicated to the public, and both domestic and external investors. Contact with the investor base was conducted by the Treasury, central bank, and investor relations office, and consisted of data provision, regular announcements, conference calls, and road shows to the major financial centers.

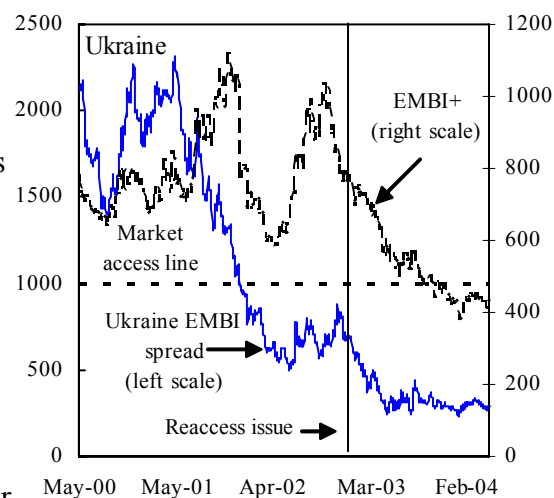
Consistent macroeconomic policy implementation and improving fundamentals, accompanied by a commitment of key presidential candidates to these policies, led to a restoration of external market access. Nine months after external access was halted and six months following the peak of financial market turbulence, the sovereign re-accessed external capital markets in April 2003, first with instruments of short maturities and then with instruments of long maturities as conditions allowed. The sovereign was careful in limiting new issue size so as to ensure oversubscription and increase the likelihood that the new issue yields would remain in line with the existing yield curve. The initial re-access occurred with a global bond of US\$1 billion with a maturity of four years, followed two months later by a global bond of US\$1.25 billion with a maturity of 10 years. Both new global bonds contained collective action clauses.

To reduce vulnerabilities, the central bank began reducing the rollover rate on domestic FX-linked debt in mid-2003. Improvements in the inflation outlook and the quality of capital flows in the balance of payments allowed the central bank to reduce the rollover rate on dollar-linked debt below 100 percent of principal without additional exchange rate volatility. These securities were largely replaced with fixed-rate notes, thereby reducing the impact of exchange rate changes on the debt stock. The maturities were also extended, and the share of interest rate-linked debt was reduced.

¹A new mark-to-market requirement was imposed on investment funds, the largest holders of government securities, shortly before the market turbulence. The severe volatility in government bond prices contributed to high withdrawals by investors unaccustomed to daily price fluctuations.

² FX hedge was provided through dollar-linked debt securities and FX swaps.

16. **The experience of Ukraine (Box 3)** shows how favorable external conditions interact with policy adjustments in restoring market access. In the face of severe domestic economic problems and the adverse developments in international capital markets, Ukraine adopted corrective measures, and undertook a debt restructuring. As a result, the fiscal position and debt dynamics improved markedly. In this light, combined with the favorable conditions in global financial markets and the improved economic prospects of Russia (Ukraine's largest trading partner), Ukraine reaccessed international capital markets in November 2002, almost five years after it had last issued a bond. However, as the chart indicates, Ukraine could have reaccessed markets possibly one year before.



Box 3. Ukraine: A Return to International Capital Markets

In the face of severe domestic economic problems and the adverse impact of the international financial crisis triggered by events in Russia in the late 1990s, Ukraine adopted a number of corrective measures, including a debt restructuring. In 2000, Ukraine launched a comprehensive debt exchange offer in the face of significant debt-service obligations falling due in 2000–01. The exchange involved the swap of four Eurobonds and three “Gazprom” bonds maturing 2000–01 for four amortizing Eurobonds maturing in 2007, of lower—10 to 11 percent—coupon, but did not include any reduction in principal. Reflecting the relatively small investor base for three of the four Eurobonds, Ukraine was able to conduct informal discussions with its creditors on the offer terms, a key factor in allowing this country to secure a participation rate of 99 percent. Between 2000 and 2002, Ukraine also restructured its foreign debt with Paris Club creditors in the context of an IMF supported economic program, and with other bilateral creditors, most importantly Turkmenistan.

After a protracted recession in the second half of the 1990s, economic activity recovered, with real GDP growing in each of the last four years. Inflation remained subdued despite large wage increases (in excess of 20 percent in each of the last three years), and broad money grew markedly, as central bank interventions to support the exchange rate were largely unsterilized. Following the sharp devaluation in 1999, the near-fixed exchange rate policy pursued by Ukraine led to an undervaluation of the domestic currency, which boosted competitiveness and stimulated import substitution. In addition, the recovery of economic activity in Russia led to an increase in exports, mostly for services. In this light, the external current account recorded surpluses that allowed a build up of international reserves to historically high levels.

As the domestic debt market collapsed because of the very low interest yields prior to the restructuring, privatization receipts and foreign financing became the main financing sources for the government. In 2002, the government was unable to carry out the planned expenditure increases because of a shortfall in foreign financing, despite a large accumulation of arrears and a significant increase in fiscal revenues. In this context, Ukraine sought other financing sources.

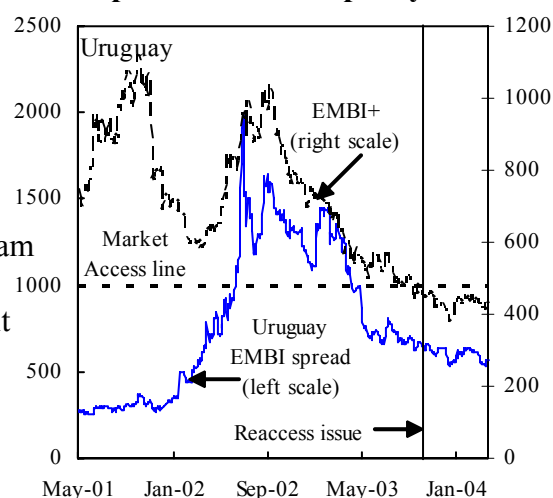
In the context of a favorable external environment, the high real GDP growth, build up in international reserves and the reduction in public debt levels paved the way for Ukraine to return to international capital markets. Reflecting a need for budget financing, after a successful roadshow Ukraine re-opened the dollar, amortizing 2007 Eurobond issue in the fall of 2002. The reopening, which was heavily oversubscribed, was for US\$260 million, and carried a yield of 11.3 percent, or some 891 basis points over comparable U.S. treasuries. (Ukraine reopened this issue for US\$140 million two days later.) Interestingly, the return to the international capital markets was successful even though the IMF program had expired without the completion of the last review.

In light of the high liquidity levels in international capital markets, positive economic performance, and improved credit ratings, Ukraine tapped markets again in 2003. To meet its significant debt-servicing needs, Ukraine issued two new Eurobonds maturing in 2013, the first in June and the second in September. The first placement was increased to US\$800 million after the issue was hugely oversubscribed, and secured a yield of 7.65 percent, some 433 basis points over a 10-year Treasury instruments, significantly below the costs of the fall 2002 issue. The extent of the oversubscription pushed the government to a new issue of US\$200 million, which also benefited from tighter spreads—326 basis points over comparable U.S. Treasury debt instruments—reflecting the higher credit ratings.

17. **In an effort to address a balance of payments crisis, in the late 1990s Pakistan adopted a new economic program that was supported by three successive arrangements from the Fund.** Key to the economic program was the sustained implementation of sound economic policies and a broad structural reform agenda. The strengthening of the fiscal stance, combined with an improvement in local market sentiment, and, since September 2001, additional support of the international community, contributed to a reversal in capital outflows, stabilized the domestic currency, and provided for enhanced monetary stability. Pakistan also continued to make solid progress with the fiscal and financial reforms. As part of this economic program, Pakistan received both stock treatment and a flow debt reduction in two rounds from the Paris Club, and restructured its external bonds (November 1999) and foreign currency deposits. As these restructurings were widely perceived as being semi coercive, they could have contributed to lengthen the time Pakistan stayed out of markets.

18. **In this context, the economic situation in Pakistan improved noticeably, paving the way for this country to reaccess international capital markets.** Economic activity recovered, with real GDP growing by 6.4 percent in 2003/04, inflation remained low, the external current account registered a surplus, albeit declining, for three consecutive years, and international reserves increased steadily. While Pakistan was still a highly indebted country, its public debt to GDP ratio continued to decline (from 108 percent in 2000/01 to an estimated 84.1 percent in 2003/04). Pakistan benefited from an upgrade of its credit ratings toward the end of 2002 and again in late 2003, reflecting the narrowing fiscal deficit, declining debt ratios, and improving external position. Under these circumstances, and as external conditions were very favorable and this country had no balance of payments need, Pakistan successfully reaccessed international capital markets after an absence of more than six years in February 2004, issuing a five-year bullet, US\$500 million Eurobond. The scarcity value of this bond and high global liquidity resulted in a very tight pricing, or only 370 basis points above a comparable U.S. Treasury debt instrument, significantly lower than prevailing spreads of many other emerging market countries with similar credit ratings.

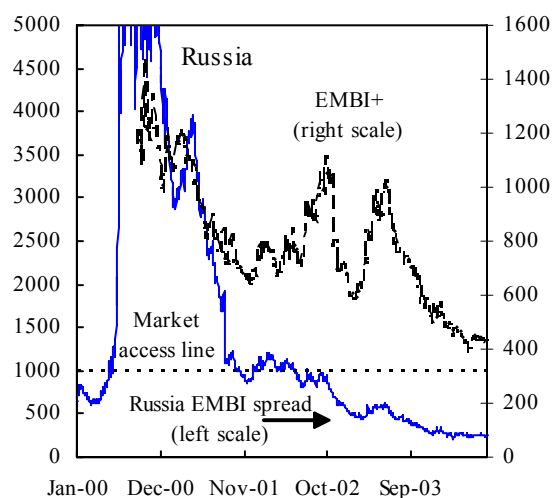
19. **Uruguay provides an illustration of how the adoption of credible policy adjustments, combined with a collaborative debt restructuring, could lead to a quick restoration of market reaccess.** In the face of a severe financial crisis triggered by events in Argentina, in early 2002 Uruguay put in place an economic program supported by a Stand-By Arrangement from the Fund. The economic program sought (i) to strengthen liquidity in the banking system that had been adversely affected by deposit outflows because of events in Argentina; (ii) to establish a sustainable macroeconomic framework, involving a more flexible exchange rate system, fiscal consolidation and monetary restraint; and (iii) to deepen the process of



structural reforms through the restructuring of public banks, deregulation, and a downsizing of the public sector. However, the economic program would prove to be insufficient to slow down deposit outflows. In response, Uruguay requested two augmentations of the Stand-By Arrangement in June 2002 and in August 2002 (which raised the proposed availability of purchases to SDR 2.1 billion, or 695.7 percent of quota). Uruguay also strengthened the strategy to address the banking problems, including the liquidation of insolvent banks. In addition, Uruguay engaged in a collaborative approach to restructure its debt in March–May 2003. In so doing, Uruguay actively involved bondholders in a systematic but informal dialogue, in the process creating goodwill towards this country.

20. The financial indicators stabilized and the economic situation began to improve, allowing Uruguay to reaccess international capital markets soon after the debt restructuring. Following a deep slump, economic activity began to recover in the first half of 2003, and inflation was below market expectations. The Uruguayan peso strengthened against the U.S. dollar, and the spreads on the sovereign bonds declined noticeably. Even though there were concerns whether it could achieve the fiscal targets (a primary surplus of 3 percent of GDP in 2003, rising to 4 percent in 2004) and the effectiveness of the banking strategy, Uruguay successfully returned to international capital markets in October 2003, or approximately one and one-half years after last accessing markets and only four months after concluding the debt restructuring. Uruguay placed a peso-denominated, inflation-indexed bond of US\$200 million with a coupon rate of 10.5 percent and maturity of three years. Investor demand for the bond was four times the amount placed, with 92 percent of the issue being placed with foreign investors. According to market participants, how quickly Uruguay reaccessed markets after the debt restructuring reflected a belief by investors that the restructuring reduced the near-term financing pressures, which would lead to a reduction in real interest rates that, in turn, could provide a boost to economic activity. Some market participants argued that the collaborative approach to debt restructuring could have helped Uruguay reaccess markets more quickly than any other country that restructured its debt.

21. Even though no country that pursued a post-default debt restructuring has reaccessed international capital markets in recent years, Russia has been in a position to reaccess markets for some time now (Box 4). In response to a financial crisis in 1998, Russia restructured the debt owed to both the official and private sectors, and adopted corrective macroeconomic policies. The improvement in the policy environment, combined with a sharp increase in international oil prices, led to a strengthening of Russia's economic structure and prospects, allowing this country to regain its creditworthiness. Under these circumstances, the City of Moscow returned to markets in late 2001, as did many public enterprises beginning with Gazprom in early 2002.



Box 4. The Russian Federation: A Return to International Capital Markets

In response to the financial crisis in 1998, Russia restructured the debt owed to both the private and official sectors, and has adopted economic policies that have reversed both the fiscal and external imbalances. To overcome the difficulties resulting from the collapse of the domestic debt market after the government's default on ruble-denominated debt in 1998, Russia conducted swap operations. In particular, Russia swapped the ruble-denominated debt for 8-year foreign currency bonds and 4-year ruble bonds, which paid an interest rate of 10 percent after the first year. Against the background of this swap, the government began issuing new paper to create a market in ruble-denominated financial instruments, capable of absorbing the excess liquidity in the financial system and providing an indicator of interest rates. In early 2002, excess domestic liquidity drove down domestic debt yields (and real interest rates remained negative), which allowed the government to swap some foreign debt for domestic debt and to extend maturities (resulting in the issuance of 15- and 20-year domestic bonds in early 2003).

In February 2000, Russia successfully restructured its defaulted Soviet-era debt with creditors. The terms of the agreement called for the swap of Principal Notes (PRINs), and Interest Notes (IANs) that matured between 2002 and 2015 for new Eurobonds that mature in 2010 and 2030. The agreement resulted in a reduction of 37.5 percent and 33 percent of PRIN and IAN Notes in face value, respectively, and included a seven-year grace period for principal repayments on the new bonds and below-market interest rates. The agreement led to the swap of US\$28.8 billion, or 99.8 percent of the debt eligible for the swap. Further restructuring agreements in the context of the Paris Club led the external debt ratios to fall to about half their levels of the late 1990s.

Russia's economic performance has improved steadily since 2000. Real GDP growth has been high, and inflation has continued to decline, despite sharp real wage increases. Reflecting prudent macroeconomic (especially fiscal) policies in the face of high international oil prices, Russia has achieved a small, albeit declining, surplus in the fiscal accounts, and a large surplus in the external current account. During 2000–01, Russia also increased the pace of structural reforms, including in the areas of fiscal management, deregulation, and strengthening of the financial environment. Base money has grown by an average of 35 percent a year from 2002 to 2004, and private credit has risen by an average of 40 percent a year over the same period. Reflecting the large surpluses of the external current account, net international reserves have risen noticeably in recent years, with the reserve coverage of public debt service reaching 8.5 years. The rise in international reserves (gross international reserves roughly match total public debt) has allowed the government to fulfill external debt-service payments comfortably and on a timely basis.

The reduction in external public debt and the improvement in international reserve position led to a credit ratings upgrade that lowered the cost of accessing international capital markets. While Russia had benefited from a series of credit ratings upgrades in 2002, in a move expected to take place only later, Moody's upgraded Russia's debt to investment grade in October 2003. Fitch and Standard & Poor's moved Russia's debt to investment grade in late 2004 and early 2005, respectively. Even though this did not result in a new sovereign issue, the upgrading opened the way for several state-owned enterprises and corporations to access international capital markets at even a lower cost than before. (The City of Moscow accessed international capital markets in October–December 2001, while Gazprom did so in the first quarter of 2002.) The central bank-owned Sberbank was the first to take advantage of the upgrade, issuing a three-year US\$1 billion bond at a spread of 175 basis points over mid swaps. Corporations, mainly in the oil and telecom industry, followed suit, thus profiting from the improvement in the country's outlook by accessing international capital markets.

III. OTHER CONSIDERATIONS TO REACCESS MARKETS

A. Communications Strategy

Objectives of the communications strategy

22. **In seeking to reaccess international capital markets, a country should put in place a strong communications strategy to explain to investors its efforts to strengthen its creditworthiness and plans to reaccess these markets.**⁸ The communications strategy would also serve to influence the attitude and behavior of investors, and to open a channel for investors to provide feedback on these efforts and plans. In so doing, it could help a country gain acceptance for these actions quickly, and provide a boost to market confidence by providing a clear signal of the country's efforts to strengthen its relations with investors.

23. **A key objective of a communications strategy is to foster common knowledge among all investors of a country's efforts to strengthen its creditworthiness and plans to reaccess markets.**⁹ The knowledge of these efforts and plans would reduce the information risk faced by investors and, therefore, allow them to reassess the risk-return tradeoff of possibly increasing their holdings of the country's debt and renewed lending to the country.¹⁰ In making clear its efforts and plans, a country should aim at prompting investors to:

- update their beliefs about the expected risk and return on the country's existing debt instruments;
- decide if the information about the new course of action warrants a change in their assessment of the country's perspectives;
- reassess the price levels of the country's debt instruments; and

⁸ The communications strategy would require a country to use its investor relations program effectively as noted in International Monetary Fund (2004).

⁹ Fudenberg and Tirole (1991) discuss the conditions for common knowledge.

¹⁰ Brunnermeier (2000) discusses the process that investors would follow in reassessing their beliefs on asset prices in the face of new information. The signal sent by a communications strategy would be credible only if investors conclude that the benefits from the country's efforts to reaccess markets outweigh the costs of a decision by the country to stay out of the markets. Camerer (2003) discusses when signals are credible.

- rebalance their portfolio through the purchase of such instruments in the secondary markets, and/or the acquisition of the new bonds issued if and when the country returns to international capital markets.

At varying degrees, all countries studied in this paper put in place at least some elements of a communications strategy to signal their efforts to strengthen their ability and commitment to repay their obligations.

24. **The initial focus of the communications strategy should be on those investors, who already are familiar with the country's credit history and, therefore, are more likely to buy a reaccess bond.** In particular, a country needs to ensure that the more experienced international investors, who are market leaders and already hold its external bonds, as well as domestic investors are aware of the country's efforts to restore its creditworthiness.¹¹ Interest from these investors, and those investors who tend to follow the actions of market leaders, could translate into a significant demand for a return issue, while setting the conditions for this issue to trade up in its early days, a critical factor in the success of a country's return to markets. For example, both Brazil and Uruguay made efforts to ensure that those investors that knew these countries' credit history understood their actions to reaccess markets. In this light, Brazil managed to sell its reaccess bond to a diverse group of investors as its return to markets generated strong interest amongst investors of fixed-income instruments, and Uruguay managed to place a peso-denominated, inflation-indexed bond with institutional investors.

Content of the communications

25. **A country should provide as much information as possible about its efforts to return to international capital markets (Box 5).** A country should provide an explanation of the objectives of the corrective measures, including the need to strengthen growth prospects, to reduce sovereign risk, and to make the economy more resilient to adverse shocks. The elements underlying these corrective measures—including the assumptions, policies, and expected results—should be announced. A country should also make known the sequencing and the timing of the adoption of these measures to downplay market concerns, while differentiating among those policies that are under the control of the executive body and those that require approval of the legislative body. In addition, a country should explain the risks associated with the corrective measures, and signal a willingness to adopt additional policy measures if necessary. To generate credibility, the elements underlying these efforts should reflect a clear sense of realism, and be put in a medium-term context so as to provide a clear indication of the country's ability to repay its obligations. In the context of the Fund's transparency policy, the publication of IMF staff reports could provide support to the

¹¹ Chang, Covrig, and Ng (2004) and Dvorak (2004) note that domestic investors tend to hold an important share of their assets in home-country assets.

communications strategy, particularly in highlighting the consistency of the country's economic policy stance. The countries analyzed in the paper provided to varying degrees information about the efforts to strengthen their ability to repay their obligations and to reaccess markets.

Box 5. Dynamics of Sovereign Spreads

In line with the theoretical literature that focuses on the relationship of asset prices and information, several market participants noted that a country's announcement of efforts to reaccess markets, including the adoption of corrective measures, is likely to lead to a narrowing of sovereign spreads.^{1/} As the experience of the countries studied in this paper shows, this announcement would induce at least some investors—particularly those investors that are familiar with the country—to increase their holdings of the country's debt. The extent of the investors' interest in these securities would depend on a combination of factors, including their tolerance for risk, ability to process and internalize information, and credibility of the new course of action. Those investors that are less risk-averse and believe in the new course of action would increase their holdings of the country's debt. Convinced that the possible success of the new course of action opens up a profitable opportunity, these investors would drive up the prices of the country's debt, thereby bringing about a narrowing of sovereign spreads. However, most market participants noted that the majority of investors are likely to remain on the sidelines or play a waiting game following the announcement of the new course of action. Under these circumstances, the narrowing of sovereign spreads is likely to converge to a level that is consistent with the country's sustainable financing cost only over time.

In the context of an early success of the new course of action, those investors who failed to act following the announcement could decide to increase their holdings of the country's debt in their portfolio. Market participants noted that, as information on the new course of action becomes available and in line with the increased trading of the country's debt, the interest of investors that do not comprise the country's target investor base is likely to grow gradually, resulting in a further narrowing of sovereign spreads. If this interest were to set off a momentum trading of the country's debt that leads to a significant narrowing of sovereign spreads, it would open the way for the country's return to international capital markets.^{2/}

^{1/} O'Hara (2003) discusses how investors react to news in a situation characterized by lack of full information.

^{2/} Brunnermeier (2000), Chan (2002), Hong and Stein (1999), Scheinkman and Xiong (2003), and Shleifer (2000) discuss the dynamics of asset prices.

26. **In addition to policy announcements, there needs to be a timely release of both data and information, including on the early results of the adjustment efforts.** This would be particularly important for a country that suffered a loss of creditworthiness because of policy missteps or an excessive delay in addressing the problems that led to a loss of market access. The timely release of both data and information that show the success of these efforts would provide reassurance to investors that the corrective measures are indeed adequate to address the country's difficulties and, therefore, encourage them to adjust their views about the country's situation. The adherence to the Fund's data dissemination standards, as was the case with most of the countries analyzed in the paper, would play a key role in this regard.

Dialogue with investors

27. **A country should undertake a dialogue with its investors about its efforts to strengthen its creditworthiness, plans to reaccess capital markets, and the broad characteristics of a reentry bond.** This dialogue would be beneficial to both sides. As noted above, it would help reduce the information risk faced by investors. It would also allow the authorities to understand investors' concerns, which could provide an indication for the country either to change its communications strategy or to adopt additional policy actions if necessary. To ensure that the markets absorb the reaccess bond easily, the authorities should engage in discussions with investors on the design of this bond. This would require investors to provide the authorities with information on their risk-return, term and liquidity preferences. As noted in Box 2, Brazil actively sought the views of investors about its policy actions. All countries analyzed in this paper sought either directly or through their financial advisors investors' views on the broad desired characteristics of a reaccess bond.

Format of communications

28. **The communications strategy should aim at a wide dissemination of information about its policy efforts and borrowing plans through a variety of communications channels.** While many elements of these efforts are likely to receive ample coverage in the press and market reports, a country should also make public announcements of these efforts, post them on official websites, and discuss the underlying elements with investors. Channels to conduct the dialogue would include conference calls, one-on-one meetings, and ("non-deal") roadshows. As the credibility of the authorities communicating with investors is critical, senior officials should be responsible for engaging investors, and, if necessary, dispelling rumors that could, particularly in times of market turbulence, deal a setback to efforts to reaccess markets.¹² Brazil is a country that used various channels to disseminate widely its commitment to policy continuity, additional fiscal efforts, and its borrowing plans. Reflecting the importance they gave to reaccessing international capital markets, most of the countries analyzed in this paper relied heavily on senior officials responsible for economic policy formulation to inform investors about the countries' adjustment efforts and economic prospects. Many market participants credited the success of these countries' efforts in reaccessing markets in part to the involvement of senior officials.

¹² Van Bommel (2003) discusses the effects of rumors on asset prices.

B. Selection of a Reaccess Bond

29. **In designing a bond to reaccess international capital markets, a country needs to consider the allocation of risk between the issuer and investors.**¹³ While the country should aim at minimizing the cost of the reaccess bond and creating the conditions for regular, uninterrupted access to international capital markets, investors would want to reduce the repayment, market, and liquidity risks associated with this bond. The characteristics of the reaccess bond would, therefore, have to address the needs of both the country and investors to ensure a successful placement, while not shifting the balance of risk to the country so as to create a situation that would be difficult to manage if the country were to face difficulties in the future.¹⁴ This would, inevitably, require a process of give and take between the country and investors. In the context of the experience of the countries reaccessing international capital markets in recent years (Table 2), a country needs to give particular attention to:

- the selection of the target investors;
- the issue's size; and
- the issue's maturity.

¹³ Some of the considerations for a sovereign in designing a debt instrument to reaccess markets are the same as those for a sovereign in designing a bond to access markets for the first time as noted in International Monetary Fund (2003a and b).

¹⁴ As noted in International Monetary Fund (2003a), any new bond should incorporate collective action clauses (CACs).

Table 2. Characteristics of Selected Reaccess Issues

	Last Issue	Duration of Loss of Market Access (Years)	Reaccess Issue								
	Before Loss Of Market Access		Announcement Date	Coupon <u>1/</u>	Yield to Maturity <u>1/</u>	Spread at Launch <u>2/</u>	Maturity Date	Size <u>3/</u>	Currency	Type	Rating at Launch
Brazil	4/12/2002	1	4/29/2003	10.00	11.0	783	1/16/2007	1,000	U.S. dollar	Bullet	B+
Pakistan	5/20/1997	6.8	2/12/2004	6.75	6.9	370	2/19/2009	500	U.S. dollar	Bullet	B
Ukraine <u>4/</u>	3/9/1998	4.7	11/21/2002	11.00	11.3	891	3/15/2007	260	U.S. dollar	Bullet	B
Uruguay <u>5/</u>	4/26/2002	1.5	10/15/2003	10.50	...	50	10/20/2006	200	URY	Bullet	B-
Venezuela	12/6/2001	1.8	9/12/2003	10.75	12.8	819	9/19/2013	700	U.S. dollar	Bullet	B-

Sources: Bondware-Capital Data; International Financing Review.

1/ In percent.

2/ In basis points.

3/ In millions of U.S. dollars.

4/ Re-opening. See Box 3.

5/ Principal indexed to inflation. The spread at launch is over URY bonds.

30. **The selection of the target investors for the reaccess bond would be an important step for a country to return to international capital markets.** The target investors need to be familiar with the country's credit history, and to believe at least to some extent in the success of the reaccess efforts. As these investors are likely to have a preference for both a certain jurisdiction and a particular currency, the selection of the target investors would facilitate the decision about the governing law in which to issue the bond, and the currency of denomination of the reaccess issue. With respect to the latter, since denominating a bond in foreign currency transfers the exchange rate risk onto the balance sheet of the government, a country needs to assess carefully the effects of an adverse shock to the exchange rate on its balance sheet.¹⁵ If the size of the reaccess bond were large relative to the country's total debt or the size of the economy, these effects could be particularly severe.

31. **The size of the issue should allow the country to meet at least in part its financing requirements, and possibly be of a size as to make it as liquid as possible.** For a country emerging from a crisis, it would be difficult to issue a bond that is sufficiently large to fill most, if not all, of its near-term financing requirements. Nevertheless, in reaccessing markets, a country should aim at issuing a debt instrument that can be absorbed easily by markets, while making an effort to ensure that it is liquid.¹⁶ The larger the country and the greater the frequency that it accesses markets, the easier it is likely to be for this country to issue a bond with this characteristic. In this context, market participants saw value in including the bond of a large country returning to international capital markets in emerging market bond indices to make it attractive to index investors as a way to enhance its liquidity. Some market participants maintained that an issue of a small country could be liquid as long as it were to attract a sufficiently large number of investors willing to buy it at issuance and to create a market for it in the secondary markets. However, they recognized that a small country may well have to issue a bond that is less liquid.

32. **The maturity of the debt instrument to reaccess international capital markets would also be an important consideration.** In this regard, a country would have to take into account (i) the need to manage rollover risk; (ii) the investors' maturity preferences; and (iii) the costs of issuing debt instruments with different maturities. In a situation where it is emerging from a financial crisis, a country would benefit from issuing a debt instrument that minimizes rollover risk. Under these circumstances, a country should issue a debt instrument that does not lead to a bunching up of payments in the near term. However, such an issue may not be consistent with the needs of investors. They may conclude that a debt instrument with a maturity that leads to an extension of duration in the face of continuing uncertainty

¹⁵ For a description of the possible effects of macroeconomic shocks on the sovereign's balance sheet, see International Monetary Fund (2003c).

¹⁶ Duffie, Pedersen, and Singleton (2003) provide a formal model of how the liquidity of a bond affects its price.

about the country's direction is subject to market and liquidity risks that are difficult to absorb. Investors may be willing to absorb such an instrument only at a considerable premium.

33. **In light of these considerations, most market participants expressed a preference for a fixed-coupon, bullet (“plain vanilla”) reaccess bond.** A plain vanilla bond is easy to price and to trade, characteristics that appeal to the great majority of investors, help build an investor base, and facilitate price discovery. Facilitating price discovery is particularly important in reaccess cases to get a clearer sense of what investors think about the country.¹⁷ The price discovery could, if sufficiently favorable, pave the way for subsequent issues, while prompting investors, who did not buy the reaccess bond, to add a subsequent issue (possibly through a reopening) to their portfolios. Some market participants noted that a complicated structure tends to reduce the liquidity of a bond because of pricing difficulties, regulatory constraints, and tax considerations. They also suggested that enhancements written into the bond structure could send a signal that the market lacks full confidence in the country's ability or willingness to meet its debt obligations. In fact, with the exception of Uruguay, all countries reviewed in this paper reaccessed the markets using “plain vanilla” bonds.

34. **A country could, nevertheless, find it in its own best interest to issue a bond with a more complicated structure.** A bond with a complicated structure would require the country to absorb some of the risks that investors generally bear with a plain vanilla bond.

35. **For instance, a country could consider issuing a bond with a floating coupon rate when returning to international capital markets.** This consideration would depend on (i) the cost and benefits of this option; and (ii) investors' preferences. A country needs to make a careful assessment of the costs and benefits of issuing this bond. This assessment needs to take into consideration not only what would be the floating coupon rate when a country reaccesses international capital markets, but also what would be the effect of a change in this rate on the public finances. While a country may find it less expensive to issue a bond with a floating coupon when interest rates in mature markets are low, a sharp rise in interest rates could make such a bond more difficult to service. Investors' preferences should also play a role in the country's decision whether to issue such a bond.

36. **As demonstrated by Uruguay with its reaccess bond, a country could also use a debt instrument indexed to the interest rate, inflation or exchange rate.** By shifting the burden of specific risks from investors to a country, an indexed debt instrument would lower the volatility of real returns for investors and, therefore, provide the necessary incentive for investors to buy the issue. The security provided by the indexation process could make it possible for a country to lengthen the maturity of the reaccess debt instrument and to reduce

¹⁷ O'Hara discusses price discovery.

rollover risk. As the design of the indexed security would be an important determinant to the overall success of the issue, it should be discussed with potential investors.¹⁸ However, an indexed debt instrument would transfer important macroeconomic risks onto the balance sheet of the government, as this instrument transmits economic shocks directly into government liabilities.

37. **To manage the rollover risk better, a country that issues bonds infrequently and does not have a well-developed yield curve should consider issuing either an amortizing or a sinking bond.**¹⁹ A country that assesses international capital markets only occasionally could find that issuing either an amortizing or a sinking bond is particularly attractive because such a bond would be effective to manage the rollover risk and, therefore, provides comfort to investors about the country's ability and willingness to service these bonds. Some market participants noted that a small sovereign could also benefit from issuing either an amortizing or a sinking bond to achieve a balanced risk-sharing. They suggested that such a country could use this structure to minimize the rollover risk from a large bullet principal payment in the future. As the amortizing and sinking bonds are not widely used despite their shorter duration (for the same maturity), the costs of issuing these bonds could be higher than the cost of issuing a bullet bond.²⁰ If it borrows the resources to make the allocation towards the amortization of a bond, a country could also face carrying costs because of the difference between the borrowing rate and the deposit rate associated with the fund.

¹⁸ See von Furstenberg and Gapen (1998) for an examination of indexation risk and other security design issues.

¹⁹ A sinking bond requires a country to make periodic, regular resource allocations to a fund toward the amortization of the bond at maturity. Sinking bonds differ from amortizing bonds in that the issuer has the option of buying back the bonds below par, while for an amortizing bond, the issuer must repay at par value.

²⁰ The duration of a bond is defined as the weighted average term to maturity of the bond's cash flows. As the yield curve is generally upward sloping, a bond with short duration tends to be less costly than a bond with a long duration.

Econometric Analysis

An empirical analysis of the determinants of market reaccess for a country emerging from a crisis has to rely on an objective definition of what is a “financial crisis” and what constitutes market reaccess. As a financial crisis often reflects different circumstances, and can have different degrees of severity, this analysis uses the definitions of financial crisis of (i) Standard and Poor’s, which defines a financial crisis as an episode where a country defaults or restructures its external obligations, including both bonds and loans;²¹ and (ii) Manasse, Roubini, and Schimmelpfennig (2003), who denote a financial crisis as an episode of near default where countries were awarded exceptional access to IMF financing. Market reaccess is defined as the placing of a new bond in international capital markets for the first time by a country emerging from a financial crisis (Table 1).

Table 1. Reaccess Statistics

	No. of episodes	No. of countries
Default on bonds or loans 1/	43	23
Exceptional access events 2/	12	12
Re-access after default	28	22
Re-access after exceptional access	12	12
Re-access after financial crisis	40	30

1/ As per S&P’s definition of default.

2/ As per Manasse et al. (2003)

Data on market reaccess are obtained from Capital Data.²² The data, which are on an annual basis, include a sample of 49 emerging market countries that issued bonds in the international capital markets from 1980 to 2003. To assess the determinants of reaccess to international capital markets, the analysis within the sample focuses on the 37 episodes of reaccess to markets after a financial crisis across the 27 countries that have experienced a crisis using one or the other of the above definitions.

To identify the variables that could impact the probability for a country to reaccess international capital markets following a crisis, a multivariate probit analysis is used.²³ This methodology serves to estimate the marginal impact of both creditworthiness and the intrinsic value of a project associated with sovereign lending on the probability of reaccess to international capital markets. The dependent variable is the event of reaccess, and is binary, taking a value of 1 in the event of a first issue by a country emerging from a financial crisis,

²¹ Standard & Poor’s considers sovereign debt to be in default if in the case of local and foreign currency bonds, notes, and bills, either when scheduled debt service is not paid on the due date after the expiration of the relevant grace period or when an exchange offer of new debt contains less favorable terms than the original issue.

²² Reaccess episodes exclude loan syndications, as this form of financing for emerging market countries has declined noticeably, and bonds resulting from an exchange offer following a debt restructuring such as the Brady bonds.

²³ For an econometric analysis along the same lines, see Gelos, Sahay, and Sandleris (2004).

and a value of 0 at all other times. The probability of reaccess to markets is assumed to be normally distributed.

To ensure robustness, the estimations take into account the following factors.

- The estimated equations are specified to account for high correlation and possible joint endogeneity across explanatory variables (e.g., high growth rates tend to be associated with high fiscal balances and low rates of inflation). Hence, alternative indicators of macroeconomic stance are used in the estimations, and sensitivity analysis is performed by introducing these alternative proxies one at a time.
- The data set is sufficiently robust to distinguish between the type of crisis that determines the loss of market access, namely whether the crisis entails (i) a default or a restructuring of bonds or foreign currency obligations (either bonds or loans) or (ii) access to IMF resources without recurring to a debt restructuring. To control for differences in the impact of the explanatory variables across the causes of loss of access, both dummy and interactive variables are used in the regressions.
- The size of the reaccess issues is typically small so that the event of reverse causality effects from the issue to macroeconomic indicators is likely to be limited. However, lagged values of several macroeconomic indicators are included in the regressions to control for reverse causality.
- Estimations are corrected for heteroskedasticity in errors.
- A proxy for global liquidity conditions provides the means to control for cyclical effects (time effects) across the sample. The sample does not include country specific effects in the regressions; however, the proxy for good governance, which has little variation over time, allows some control for country specific effects.

The theoretical literature concludes that the key determinants for market reaccess are investors' risk appetite, the country's ability and commitment to meet its debt obligations, the expected returns from an investment, and the rebuilding of a country's reputation as a responsible debtor.²⁴ In the estimations, international investors' willingness to lend, or their risk appetite, is proxied both by U.S. Treasury bill rates and an index of volatility in mature capital markets. As proxies for the ability of a country to repay its debt, the external current account balance, total reserves to (monthly) imports and total debt are used. The overall and primary fiscal balances are assumed to proxy for this country's commitment to repay its debt. Monetary stance indicators—inflation and M3/GDP—are also included to proxy for

²⁴ For a discussion of the determinants of market reaccess in the theoretical literature, see Atkinson (1991), Diamond (1989), and Cole, Dow and English (1995).

commitment to sound domestic policies. The expected returns from an investment are proxied by domestic economic growth rates, while lagged values of the macroeconomic indicators are assumed to represent the process of rebuilding of reputation. All data are checked for the presence of outliers.

Table 2 presents a summary of the main results. In particular:

- Risk appetite is found to have a large and significant impact on the probability of reaccess to international capital markets.
- The indicators of the ability to repay—high external current account balances, high levels of reserves per month of imports, and low debt to GDP ratios—are significantly associated with the probability of reaccess.
- Among the indicators of the commitment to repay, low inflation rates and high values in the good governance indicator are found to be significantly associated with the probability of reaccess.
- Overall fiscal balances are not found to have a significant impact on the probability of reaccess. However, fiscal primary balances are found to have a significant impact in the probability of reaccess of those countries that have not gone through a restructuring or a default. This suggests that the primary balances provide a good indication for the commitment to repay for those countries that remained current on their external debt obligations.
- M3/GDP is found not to have a significant impact on the probability of reaccess.
- The lagged external current account balances, reserve levels and debt to GDP ratios have a significant impact on the probability of reaccess, which suggests that the impact of reverse causality is low and countries emerging from a financial crisis need to rebuild their reputation as responsible debtors before reaccessing markets.
- Real GDP growth rates have a positive impact on the probability of reaccess, although they are significant only for those countries that have defaulted or restructured on their bonds. This suggests that a track record of good economic performance has more of an impact on the probability of reaccess for countries that have to restructure their debt.

Table 2. Multivariate Probit Analysis: Estimates of the Marginal Impact on the Probability of Issuing a New Bond
Dependent variable: Reaccess after a Financial Crisis 1/ 2/

	1	2	3	4	5	6	7	8	9	10	11	12
<i>i_W</i>	-1.02 (0.3)***	-1.00 (0.5)**	-1.01 (0.48)**	-1.09 (0.51)**			-1.13 (0.55)**	-1.01 (0.47)**	-0.86 (0.01)	-1.09 (0.52)**	-1.22 (0.51)**	
CA	0.291 (0.138)**	0.4803 (0.229)**	0.473 (0.226)**	0.4524 (0.231)*	0.6258 (0.3172)**			0.4809 (0.2188)**	0.6332 (0.2746)**			0.6203 (0.2313)***
Debt	-0.04 (0.01)*	-0.09 (0.01)*	-0.08 (0.00)*	-0.07 (0.00)	-0.12 (0.04)**	-0.1 (0.01)**	-0.06 (0.04)	-0.08 (0.04)*	-0.05 (0.06)			-0.001 (0.0005)*
π	-0.0001 (0.00)**	-0.0001 (0.00)*	-0.0001 (0.00)*		-0.0001 (0.000)*	-0.0001 (0.000)*	-0.0001 (0.000)*	-0.0001 (0.000)*	-0.0001 (0.000)*			-0.0001 (0.0000)*
ΔY		0.0002 (0.003)										
Fiscal Primary		0.0018 (0.00)										
ΔY * BDefault			0.0047 (0.0028)*	0.0054 (0.0026)**	0.0052 -0.0034	0.0071 (0.0038)*	0.0058 (0.0031)*	0.0054 (0.0026)**	0.0057 (0.0034)*			0.0068 (0.0038)*
Fiscal Primary *EA			0.0086 (0.0046)*	0.0084 (0.0047)*	0.0102 (0.0056)*	0.012 (0.0061)**	0.0101 (0.0051)**	0.007 (0.0040)*	0.0109 (0.0054)**			0.016 (0.0071)**
VXO					0.0033 (0.00)	0.0042 (0.00)						
Reserves						0.0081 (0.01)	0.0047 (0.00)					
Budget Balance								-0.4409 (0.2515)*				
ICRG									0.0032 (0.0017)*			
CA _{t-1}										0.619 (0.2629)**		
Debt _{t-1}										-0.07 (0.04)*	-0.05 (0.04)	
π_{t-1}										0.00 (0.00)	0.00 (0.00)	
ΔY_{t-1} * BDefault										0.0045 (0.00)	0.0069 (0.0034)**	
Fiscal Primary _{t-1}										0.0057 (0.01)	0.0072 (0.01)	
Reserves _{t-1}											0.0081 (0.0044)*	
VXO *EA												-0.0015 (0.00)
Observations	463	299	298	333	264	263	297	298	269	293	292	398
Wald chi2	20.85	11.70	21.89	22.18	24.4	18.96	18.22	26.05	19.46	21.10	16.12	23.83
LogL	-86.49	-68.90	-66.61	-75.15	-66.03	-67.19	-68.08	-65.53	-65.03	-67.95	-69.51	-95.87
Pseudo R2	0.14	0.09	0.12	0.13	0.10	0.08	0.10	0.14	0.12	0.13	0.11	0.10

Robust standard errors in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%.

1/ Variable definitions: *i_W*: world interest rates (U.S. rates); ΔY : GDP growth rates; BB: budget balances; Debt: total debt to GDP; CA: current account balances; Reserves: reserves in months of imports; VXO: index of volatility in mature markets: yearly average of daily data on volatility of S&P 500 futures index; ICRG: (index) International Country Risk Guide; CA_{t-1}: previous period CA; Reserves_{t-1}: previous period reserves in months of imports; BDefault (dummy) countries that defaulted on or restructured their bonds; ΔY t-1 GDP growth in the previous period; EA countries that benefited from exceptional access; and π : inflation.

2/ Countries: Argentina; Brazil; Chile; Costa Rica; Croatia; Dominican Republic; Ecuador; Egypt; Guatemala; Indonesia; Jamaica; Korea; Mexico; Morocco; Pakistan; Panama; Peru; Philippines; Russia; Slovenia; South Africa; Thailand; Turkey; Ukraine; Uruguay; and Venezuela.

REFERENCES

- Atkenson, Andrew, 1991, "International Lending with Moral Hazard and Risk of Repudiation," *Econometrica*, Volume 59, Number 4, July.
- Brunnermeier, Markus K., 2000, *Asset Pricing under Asymmetric Information—Bubbles, Crashes, Technical Analysis, and Herding* (New York: Oxford University Press).
- Camerer, Colin F., 2003, *Behavioral Game Theory* (Princeton: Princeton University Press).
- Chan, Kalok, Vicentiu M. Covrig, and Lilian K. Ng, 2004, "What Determines the Domestic and Foreign Bias? Evidence from Mutual Fund Equity Allocations Worldwide," *The Journal of Finance*, forthcoming.
- Chan, Wesley, 2002, "Stock Price Reaction to News and No-News: Drift and Reversal After Headlines," *The Journal of Finance*, forthcoming.
- Cole, Harold L., James Dow, and William B. English, 1995, "Default, Settlement, and Signalling: Lending Resumption in a Reputational Model of Sovereign Debt," *International Economic Review*, Volume 36, Number 2, May.
- Cochrane, John H., 2001, *Asset Pricing* (Princeton: Princeton University Press).
- Diamond, Douglas W., 1989, "Reputation Acquisition in Debt Markets," *The Journal of Political Economy*, Volume 97, Number 4, November.
- Duffie, Darrell, Lasse Heje Pedersen, and Kenneth J. Singleton, 2003, "Modeling Sovereign Yield Spreads: A Case Study of Russian Debt," *The Journal of Finance*, Volume 58, Number 1, February.
- Dvorak, Tomas, 2004, "Do Domestic Investors Have an Information Advantage? Evidence from Indonesia," *The Journal of Finance*, forthcoming.
- Fudenberg, Drew, and Jean Tirole, 1991, *Game Theory* (Cambridge, Massachusetts: The MIT Press).
- Gai, Prasanna, and Nicholas Vause, 2004, "Risk Appetite: Concept and Measurement," Financial Stability Review, Bank of England, December.
- Gelos, R. Gaston, Ratna Sahay, and Guido Sandleris, 2004, "Sovereign Borrowing by Developing Countries: What Determines Market Access?" WP/04/221, International Monetary Fund.

- Hong, Harrison, and Jeremy C. Stein, 1999, "A Unified Theory of Underreaction, Momentum Trading, and Overreaction in Asset Markets," *The Journal of Finance*, Volume 54, Number 6, December 1999.
- International Monetary Fund, 2004, "Investor Relations Programs," SM/04/364, (10/27/04).
- International Monetary Fund, 2003a, "Access to International Capital Markets for First-Time Sovereign Issuers," SM/03/218, (6/24/03).
- International Monetary Fund, 2003b, "Access to International Capital Markets for First-Time Sovereign Issuers—Country Cases," SM/03/218, (6/24/03).
- International Monetary Fund, 2003c, "The Balance Sheet Approach and its Application at the Fund," <http://www.imf.org/external/np/pdr/bal/2003/eng/063003.htm>, June.
- International Monetary Fund, 2003d, *Global Financial Stability Report*, March.
- International Monetary Fund, 2001a, "Assessing the Determinants and Prospects for the Pace of Market Access by Countries Emerging from Crises," EBS/01/157, (9/6/01).
- International Monetary Fund, 2001b, "Assessing the Determinants and Prospects for the Pace of Market Access by Countries Emerging from Crises—Country Cases," EBS/01/157, (9/6/01).
- Manasse, Paolo, Noueriel Roubini, and Axel Schimmelpfennig, 2003, "Predicting Sovereign Debt Crises," IMF Working Paper, WP/03/221, November.
- O'Hara, Maureen, 2003, "Presidential Address: Liquidity and Price Discovery," *The Journal of Finance*, Volume 58, Number 4, August.
- Scheinkman, José, and Wei Xiong, 2003, "Overconfidence and Speculative Bubbles," mimeo, Princeton University.
- Shleifer, Andrei, 2000, *Inefficient Markets—An Introduction to Behavioral Finance* (Oxford: Oxford University Press).
- Van Bommel, Jos, 2003, "Rumors," *The Journal of Finance*, Volume 58, Number 4, August.
- von Furstenberg, George, and Michael Gapen, 1998, "Conditional Indexation Bias in Yields Reported on Inflation-Indexed Securities with Special Reference to UDIBONOS and TIPS," *Economia Mexicana*, Volume 7, Number 2.