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Debt Sustainability, Brazil, and the IMF

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I. INTRODUCTION

Those who have watched financial crises in emerging economies over the past two years would have noticed two things. First, there has been a high concentration of financial crises in Latin America. Second, debt problems have been at the heart of several recent crises, including the prominent ones in Argentina, Brazil, Turkey, and Uruguay.

This paper discusses issues of debt sustainability in emerging economies. After providing in section II a brief account of the hard times that have recently fallen on Latin America, I present in section III a few summary debt statistics for several recent crisis economies.

In section IV, I draw attention to a group of pitfalls in the standard framework for assessing government debt sustainability in emerging economies. These pitfalls include, inter alia, ignoring the foreign-exchange constraint; missing fragile debt positions in the private sector that can subsequently become public-sector liabilities; not taking adequate account of negative feedbacks running from high real interest rates and fiscal policy tightening to the growth rate; and failing to capture spillover effects among debt, currency, and banking problems. In addition, the standard framework doesn't tell you what a safe government debt ratio is—only if it's rising, stable, or falling. I argue that these pitfalls often lead to unduly optimistic conclusions about debt vulnerabilities in emerging economies.

In section V, I examine the factors influencing near-term debt dynamics in Brazil. After outlining several positive features of the Brazilian economy that did not exist in Argentina on the eve of the latter's recent crisis, I lay out the arguments for expecting that economic growth in Brazil this year will be slow (only slightly above 1 percent), that the real interest rate on the public debt will be relatively high (about 10½ percent), and that the government is unlikely to deliver a primary surplus in the budget much beyond 4 percent of GDP. Without pretending to much precision, my calculations suggest that in order to prevent the ratio of net public debt to GDP from rising this year, the authorities would need to run a primary surplus of roughly 5¼ percent of GDP. Despite the good start made by the new Lula government, I maintain that the debt situation remains precarious; in this connection, I highlight the steady rise in the public debt ratio over the past eight years and the continued seriousness of the balance-of-payments situation—especially the large external financing requirements facing the private sector. I argue that the Brazilian authorities should aim for a primary surplus of at least 5¼ percent of GDP; the recently announced target for the surplus of 4¼ percent is just too close to the edge of crisis—particularly when the global economy is heading into a period with increased downside risk. I also explain why Brazil's central bank should be granted (de jure) operational independence as soon as possible and why maximum efforts should be made to negotiate trade arrangements that

increase Brazil's low level of trade openness. If the recent market rally fizzles and interest rates, capital flows, and the exchange rate again take a significant adverse turn, serious consideration ought to be given to doing a major debt restructuring with the cooperation and support of the International Monetary Fund (IMF).

Finally, in section VI, I draw some implications of these debt issues for the policies of the IMF and of its major shareholders (the G-7 countries). I conclude that IMF surveillance needs to pay much greater attention than it has in the past to the build-up of vulnerable domestic and external debt positions in emerging economies, that the Fund has to adopt a tougher position in making debt sustainability a key condition for IMF lending, and that there would be an important role for IMF financing in easing the adjustment costs of a necessary debt restructuring.

II. HARD TIMES IN LATIN AMERICA

Real GDP in Latin America declined by about half a percent last year—following an increase of roughly the same amount in 2001. This is the worst two-year growth performance in Latin America since 1982-83, the beginning of the 1980s debt crisis. Argentina, Uruguay, and Venezuela are in the midst of financial crises and Brazil and Ecuador are not far from the edge. Even the region's strongest economies, namely Mexico and Chile, grew last year by less than 1 and 2 percent, respectively.¹ According to the Inter-American Development Bank (Iglesias 2002), unemployment in the region is at an all-time high and poverty has increased since 1998. Net private capital flows to the region, which were running at an average annual rate of \$60-70 billion in 1996-98, have declined sharply to less than a quarter that amount in 2001-02; similarly, reflecting a slowdown in world trade and adverse movements in the terms of trade, Latin America's export earnings were essentially flat during the past two years versus average annual growth of 8 percent in the 1996-2000 period. Consensus forecasts for Latin American growth in 2003 fall in the 1.8 to 3 percent range (e.g., see IMF 2002b, World Bank 2003, Citigroup 2002, and Deutsche Bank 2003)—the lowest among all developing-country regional groups. Taking a longer-term perspective, real income per capita in Latin America is approximately where it was in 1980 and only Chile has managed to narrow income per capita differences with the United States over these two decades.²

Argentina's economy is estimated to have contracted last year by about 11-12 percent—bringing real GDP to a level 20-25 percent below the peak in 1998. Over the past 13 months, Argentina has experienced a huge depreciation of the peso, a systemic banking crisis, the largest

¹ Only Peru was able to record better than 4 percent growth in 2002.

² See Hausmann (2002).

sovereign default in history, and a long and contentious negotiation with the IMF over a new program and the payment of overdue obligations to the international financial institutions. The current interest spread on Argentina's benchmark bonds is over 6,000 basis points.

Brazil, Latin America's largest economy, has been undergoing its toughest economic challenge since the crisis of 1998-99. At the end of April 2002, the interest rate spread (over the equivalent US Treasury security) on Brazil's benchmark bond (the 10-year C-bond) was a high, but perhaps still manageable, 785 basis points. Reflecting the market's concerns about debt sustainability and about future economic policies if either of the opposition candidates won the October presidential election, that interest rate spread rose sharply through the summer and fall, reaching a high of over 2,400 basis points. The real likewise took a beating over the period, falling to an all-time low of 3.95 last October (from 2.30 early in the year). Because almost 40 percent of the domestic public debt and practically all of the external debt are tied to the exchange rate, the real's large depreciation also contributed to a marked rise in Brazil's ratio of net public debt to GDP. Reflecting both the large depreciation of the real and a rapid increase in the monetary base, the second half of 2002 also witnessed an upsurge in inflation, with consumer price inflation (IPCA index) rising from an annual rate of about 5-6 percent in June to 12 percent at the end of 2002. Faced with this resurgence in inflationary pressures, Brazil's central bank opted to raise the overnight interest rate (the SELIC) in a series of steps from 18 percent in June to 25½ percent last month (January 2003). The Brazilian economy is thus operating with a short-term real interest rate that is in the low double-digits—and this in an economy that grew by about 1½ percent both last year and the year before. Faced with these adverse developments, the Brazilian authorities were forced to abandon their earlier position that no additional official financial assistance would be needed to avert a crisis; indeed, by early August the situation had deteriorated to such an extent that Brazil requested and received approval for a \$30 billion IMF rescue package—the largest single loan (in absolute amounts) ever extended by the Fund.

The contraction suffered by Uruguay last year was severe—on the order of 12-13 percent. This was the fourth consecutive year of decline and the consensus forecast for 2003 (-4 percent) makes it the fifth year of contraction yet. Because of its close economic ties to Argentina (especially deposits held in Uruguayan banks by Argentine residents), Uruguay was hard hit by its much larger neighbor's collapse. Confronted with huge declines in international reserves and bank deposits, a large currency depreciation, an eight to tenfold increase in inflation, and a rapidly rising debt burden, Uruguay too had to seek IMF support. In fact, after two IMF agreements in March and August of this year and loans from the World Bank and IADB, total official support committed to Uruguay grew to \$3.8 billion—roughly one-fifth of this small

country's GDP. The current spread on Uruguay's benchmark bond is over 1,800 basis points and Standard and Poor's recently lowered the country's long-term foreign-currency rating by two notches to CCC.

Venezuela's real GDP fell last year by over 8 percent and the country has been embroiled in a civil conflict (including a general strike) that has cut oil output by an estimated 50-70 percent, seriously disrupted nonoil economic activity, and put further strains on government finances, the external accounts, and the exchange rate. Despite high oil prices, the current interest rate spread on Venezuela's bonds is over 1,350 basis points and most forecasters expect another sizeable contraction in the economy this year. Foreign-exchange controls have recently been imposed and a fixed exchange rate regime has been adopted (at a revalued rate).

While Ecuador's overall economic situation (growth, inflation, and fiscal accounts) and outlook is much better than that of Venezuela, President Gutierrez faces strong domestic opposition and the economy has slowed significantly since the initial growth spurt in the immediate wake of dollarization. Until the last few days, questions about medium-term fiscal sustainability had held up an agreement with the IMF.³ One indication of the market's concerns about restructuring of government debt is that the interest spread on Ecuador's bonds still stands at over 1,500 basis points.

Elsewhere in the region, despite praiseworthy efforts by President Uribe and his team, Colombia still faces strong headwinds: a costly civil war, a large fiscal deficit (about 6 percent of GDP), and a relatively weak economy (less than 2 percent growth). Bolivia and Paraguay (like Uruguay) have been adversely affected by contagion from their larger neighbors but have serious home-grown problems as well. Violent street clashes have recently broken out in La Paz over planned tax increases aimed at reducing a large fiscal deficit, and Standard and Poor's lowered Paraguay sovereign debt rating to "selective default" after it missed some payments on its outstanding debt. Like Ecuador, Panama stands as *prima facie* proof that dollarization hardly cures all ills, with growth held to below 1 percent over the past two years and with continuing fiscal and external imbalances clouding the outlook. Peru recorded faster growth (over 4 percent) than its neighbors in 2002 but is facing political uncertainties that could complicate its efforts at fiscal consolidation.

True enough, the last three-four months have seen some rays of sunshine as well as some disappointments. On the plus side, the most significant developments have been the strong market rally in Brazil since the election of President Lula and the signs of bottoming-out in Argentina.

³ The Fund recently announced that a new program with Ecuador would be submitted in March to the Fund's Executive Board for approval.

Going to the negative side of the ledger, the situation in Venezuela has gone from bad to worse and the failure in Uruguay to meet structural policy commitments resulted in a cessation of disbursements under its Fund program.

Buoyed by market-friendly policy statements on the budget and on debt, by the appointment of a moderate/conservative economics team, and by a willingness of the central bank to raise interest rates in the face of higher inflation, the post-election rally has been marked by a decline in Brazil's external interest spread to roughly 1,300 basis points, an appreciation of the real to 3.60, an upturn in the Brazilian stock market, a sharp decline in capital flight, higher rollover rates in recent government bond auctions, and an easing of the external credit crunch on some Brazilian corporations. So far, the IMF's program is on track and \$6 billion of the Fund's \$30 billion commitment has been disbursed. That said, since the Lula government has been in office for only a little over a month, the rally is based mostly on what they say they are going to do—not on what they have done; moreover, the large deterioration in the inflation outlook—acknowledged by the central bank's increase of the inflation target for this year from 4 percent to 8½ percent—along with other factors, led to a weakening of most asset prices, including the exchange rate, during the past month.

In Argentina, much of the recent good news is what has not happened: Argentina has not gone into hyperinflation, the peso has not gone into free fall, international reserves have not continued to erode, and economic activity has not remained on a downward path; instead, there has been a quasi-stabilization, the beginnings of a moderate upturn in the economy, and increase in tax receipts, and some dismantling of the restrictions on bank withdrawals and capital outflows. Also, in mid-January (2003), Argentina reached an agreement with the Fund on a rollover program of \$6.6 billion that will permit Argentina to delay certain debt repayments to the Fund and to pay others coming due over the next seven months (until August 2003). While there will not be any new net IMF money, the IMF loan provides enough "evergreening" to avoid a default to the Fund. Still, much remains to be done on fiscal policy, on securing monetary stability, on rebuilding the banking system, and on allocating the losses stemming from the banking collapse and the debt default. And if the Supreme Court rules against the earlier "pesofication" of banking deposits/loans, this would be a serious complication for the recovery effort. I will have more to say on the Fund's program with Argentina in section VI.

Outside Latin America, Turkey's efforts to recover from its crisis in 2001 continue to merit close attention—not least by the IMF that has over \$30 billion committed there as a consequence of several program enlargements. After falling by over 9 percent in 2001, the Turkish economy rebounded to record growth of nearly 6 percent last year. Inflation also

continued on a downward trend, dipping below 30 percent by year-end. But the level of real interest rates is still so high (approximately 25 percent on benchmark bills) that—even if the heroic primary budget surplus of 6½ percent of GDP were maintained—serious questions remain about debt sustainability. A recent decision by the newly elected government (AKP) to increase pension expenditures (without specifying how this would be financed), along with the prospect of a war in Iraq, have also created some nervousness in the market and raised doubts about whether fiscal developments remain on track. The current interest rate spread on benchmark bonds is about 700 basis points.

III. TOO MUCH DEBT AS A COMMON ELEMENT OF HIGHER CRISIS VULNERABILITY

If recent emerging-market crises were exclusively the result of the global economic slowdown, regional contagion, and traditional banking and currency-regime vulnerabilities, perhaps the latest spate of crises could be considered to be merely a continuation of those occurring in the 1994-98 period. However, what has given the latest, more visible crises a somewhat different identity—more reminiscent of the 1980s debt crisis—is the observation that several of the crisis countries share a common characteristic, namely, they have arguably too much external and/or public debt; that is, they are debt crises—not merely currency and/or banking crises.

Consider the following summary debt statistics:⁴

- In **Argentina** just prior to the crisis (in late 2001), the ratio of external debt to merchandise exports was over 500 percent. If one asks how many emerging economies over the past 20 years have been able to move from such a high external debt ratio (say, 400 percent or more) down to a more moderate one (say, 250 percent or lower) without a major debt restructuring, the answer seems to be only one, namely, Chile.⁵ On the other hand, the pre-crisis ratios of external debt or government debt to GDP (both about 52 percent) in Argentina were not obvious outliers. As the IMF (2002a) has shown, the relatively low average trade openness in Latin America causes ratios of external debt and of government debt to exports to be high relative to other developing-country regions; in contrast, ratios of external debt to GDP are actually lower in Latin America than in emerging Asia.

⁴ These debt figures (except for Argentina) refer to 2002; they come from Deutsche Bank (2003).

⁵ Although interest rates in the industrial countries are much lower today than they were in the 1980s, the large risk premia charged to highly indebted risky borrowers still results in high external borrowing costs.

- In **Brazil**, the ratio of external debt to merchandise exports is currently running at about 380 percent. Gross and net public debt to GDP stand at approximately 75 and 63 percent of GDP, respectively.
- In **Ecuador**, external debt represents just over 300 percent of merchandise exports, while government debt is at 70 percent of GDP.
- In **Turkey**, the ratio of external debt to merchandise exports is roughly 280 percent of GDP. Government debt to GDP is in the neighborhood of 80 percent of GDP.
- And in **Uruguay**, external debt makes up just under 500 percent of merchandise exports, while government debt is 80 percent of GDP.

Just for comparison with some emerging economies that have not experienced crisis conditions during the past year, one might note that the ratios of external debt to merchandise exports in Mexico and Chile are currently 94 and 225 percent, respectively. Similarly, government debt to GDP is about 38 percent for South Korea and 43 percent for Russia. These four less indebted emerging economies are also able to access international capital markets at much lower interest rate spreads (ranging from about 120 basis points for South Korea to 400 basis points for Russia) than the five more highly indebted economies discussed above.

IV. PITFALLS IN DEBT SUSTAINABILITY EXERCISES FOR EMERGING ECONOMIES

A common practice in evaluating debt sustainability is to focus on (gross or net) government debt as a share of the country's GDP. A sustainable government debt is one in which that debt ratio is stable or falling over time; a rising debt ratio denotes unsustainability. To determine what the debt ratio will be next year, the analyst makes (year ahead) projections for the economy's real growth rate, the real interest on the debt, and the noninterest component of the government budget expressed as a share of GDP (the so-called "primary surplus" or primary deficit).⁶ The debt ratio will be higher next year, *ceteris paribus*, the higher the debt ratio this year, the lower the growth rate, the higher the real interest rate on the debt, and the lower the primary surplus. Whereas the growth rate and real interest rate have a less than one-to-one effect on the debt ratio when last period's debt ratio is less 100 percent (since their difference is multiplied by last period's debt ratio), the primary surplus translates one-to-one into a change in the debt ratio. The same

⁶ Let $d(t)$ be the ratio of government debt to GDP in period t , g the growth rate of real GDP, r the real interest rate on government debt, and PS the primary surplus on the government budget expressed as a share of GDP. Then $d(t+1) = d(t) [(1+r)/(1+g)] - PS$; also, following Goldfajn (2002), the primary surplus needed to keep the debt ratio stable (PS^*) is equal to $[(r-g)/(1+g)]d(t)$.

expression can be solved for the primary surplus required to stabilize the debt ratio (given projections for all the other key variables).

How can such a debt sustainability framework be misleading for emerging economies? Let me discuss nine potential pitfalls.⁷

- (a) **The standard framework ignores the foreign-exchange constraint**; this constraint is extremely important for emerging economies and must be analyzed separately.⁸ When you are examining government or private debt denominated in foreign currency, you need to get a fix on the economy's ability to generate foreign-exchange revenues. The implicit assumption when comparing debt to GDP is that resources can easily be directed from the rest of the economy to the tradable goods sector to earn the requisite foreign exchange. But such an assumption does not fit comfortably for some emerging economies, especially those that have a history of import substitution and that currently display relatively low ratios of exports to GDP. Argentina and Brazil, for example, have long had export shares of GDP that (pre-crisis) hovered in the 10-11 percent neighborhood. In contrast, average export openness in Asian emerging economies is five to six times higher and more than two and a half times higher in both Chile and Mexico. Because taxes are typically denominated in domestic currency whereas the bulk of emerging-market sovereign external debt is denominated in foreign currency, the government's debt servicing capacity often displays a sizeable currency mismatch. Such a currency mismatch also occurs when private-sector firms borrow in dollars but produce nontradables that generate only domestic-currency revenues; for example, Argentina's privatized utilities built up over \$40 billion in external debt but had no foreign exchange earnings.⁹ The foreign-exchange constraint becomes particularly relevant in periods (like 2001-02 for Latin America) when there is a sharp fall in net private capital flows to emerging economies, a slowdown in world trade that reduces their export earnings, and a large depreciation of emerging-market currencies that increases the currency mismatch. Emerging-market central banks can print local currency; they cannot issue dollars.
- (b) **The focus on government debt misses fragile debt positions in the private sector that can subsequently become liabilities of the public sector**, that is, debt that starts in the private sector doesn't always stay there. If, for example, there is a systemic banking crisis among private banks, the subsequent recapitalization of the banking system can involve a

⁷ This section expands upon the arguments laid out earlier in Goldstein (2003).

⁸ Williamson (2002) and Powell (2003) are examples of debt sustainability studies that do analyze the foreign exchange constraint separately from the likely evolution of the government debt ratio.

⁹ See IMF (2003b).

large increase in government debt. Likewise, if there is high leverage in the corporate sector and a change in the external environment produces a wave of corporate bankruptcies, a banking crisis is not likely to be far behind, again increasing government debt. We saw strong evidence of how private-sector debt problems (especially when they occur in a financial sector with large foreign-currency exposure) can lead to a mushrooming of government debt in the Asian financial crisis of 1997-98. While a higher share of external debt in Latin America is sovereign debt (vis-à-vis Asian emerging economies), there are countries within the region (e.g., Brazil and Chile) where most of the external debt is private-sector debt.

- (c) Even remaining within a public debt to GDP framework, **one needs to take account of negative feedbacks running from high real interest rates and fiscal policy tightening to the growth rate**. Merely extrapolating the historical growth rate in such a conjuncture can produce too optimistic a scenario. When an emerging economy is hit with negative shocks and sees its real interest rate rise to double digits or even the high teens and stay there for say, six months or so, it is hard to envisage that economy growing by more than negligible amounts. Similarly, tightening fiscal policy by several percentage points of GDP in an environment where the economy is already in recession or a severe slowdown and where monetary policy easing is constrained for one reason or another (e.g., by the currency regime or a high share of currency-indexed debt) is likely to affect growth. Hence, an emerging economy can get into a “vicious circle” with economic growth, tax revenue, credit flows, and interest rate spreads interacting in ways that are difficult to capture in the standard formula. Put in other words, it’s not just the means of the growth, interest rate, and primary surplus that you need to worry about; it’s the variance and covariance too. Argentina’s unsuccessful efforts to extract itself from recession in 2000 and 2001 are a case in point. More generally, evidence collected by the IMF (2002a) suggests that debt defaults and restructurings in emerging economies have been more frequent when and where real output variability has been relatively high than when and where it has been low.
- (d) **The standard analysis doesn’t capture spillover effects among debt, currency, and banking problems**. Once concerns about debt sustainability arise and interest rate spreads reach high levels, an all too frequent occurrence is for the authorities to impose regulations on domestic banks, mutual funds, and pension funds that require them to hold larger amounts of government bonds on non-market terms. The rub here is that if debt sustainability concerns continue, the asset-side of the financial institutions’ balance sheets

then becomes suspect—leading to questions about their solvency. In many emerging economies, banks' holding of government bonds is equal to several times the banks' capital. This means that the action-forcing event in a debt crisis need not be a failed government bond auction, for instance; it could instead be a “run” on financial institutions that hold relatively large amounts of government bonds.

- (e) **The interest rate on bonds that you observe in the market while an emerging economy is operating under a Fund program—and/or negotiating for an extension/enlargement of an existing program—doesn't tell you what the interest rate will be when that borrower comes off the official feeding tube**, yet it is the latter that is crucial for its debt sustainability over the medium term. Turkey, for example, is currently the recipient of one of the largest Fund programs in history. True, thus far, Turkey has performed well under its program but its access to official finance is also being bolstered—especially post September 11—by its geopolitical importance. But look down the road several years and assume that official finance was then less assured. What interest rate would the market then charge to lend to a country with a government debt equal to say, 75 percent of GDP?
- (f) **The standard formula doesn't tell you anything about how difficult it is to change the variables that affect debt sustainability.** In this connection, a calculation that suggests that a country is not far away from debt sustainability because the debt ratio could be stabilized (given projections for growth and real interest rates) simply by increasing the primary surplus by one or two percentage points can be misleading. In an emerging economy with coalition governments and a hotly contested domestic debate about budgetary priorities and about the distribution of the tax burden, an increase in the primary surplus of even 1 percent of GDP can be a major and uncertain undertaking. In Argentina, for example, even in the throes of the crisis (with disaster looming), it was not possible to muster the political will to deliver a primary surplus of 1-2 percent of GDP. In contrast, the real interest rate on government debt can change by 5 or 6 percentage points within a year, as market sentiment (both inside and outside the country) improves or deteriorates, as the inflation rate surges or falls, and as the exchange rate depreciates or appreciates. In Brazil, for example, the average real interest rate on government debt increased by 6 percentage points between 1998 and 1999—only to fall by roughly the same amount between 1999 and 2000.¹⁰ In short, calculating the conditions necessary for

¹⁰ See Favero and Giavazzi (2002).

debt sustainability is not the same as delivering those conditions in the political and financial marketplaces.

- (g) **When government debt is denominated in local currency but is indexed to the exchange rate, exchange-rate changes can have a significant impact on the government debt ratio.** In those cases, the change in the exchange rate has to be added to the standard debt sustainability framework to track the likely evolution of the government debt ratio. In Brazil, for example, it has been estimated that a 3 percent devaluation of the real (via its effect on dollar-denominated and dollar-indexed instruments) has roughly the same impact on the government debt ratio as a 300 basis point rise in the interest rate over 12 months or a 1 percent drop in the GDP growth rate.¹¹
- (h) **There are often problems in measuring both government debt and the average real cost of government debt—particularly in an environment where emerging-market authorities want to convince the market that the existing debt level is sustainable.**

Net government debt is typically defined as gross government debt minus liquid assets of the government. While some of those assets, such as international reserves and government bank deposits, easily pass the “smell test” for liquidity, other assets—ranging from claims of the central government on other government entities to government funds earmarked for unemployment insurance, wage support, and subsidized credits—do not. Yet alternative definitions of net government debt can have a material impact on evaluating debt sustainability. Favero and Giavazzi (2002), for example, have argued that a realistic appraisal of the liquidity of government assets in Brazil leads to a ratio of net government debt to GDP that is roughly 12 percentage points of GDP higher than the official figure regularly published by the Banco Central do Brazil—that is, on their estimates, net government debt was closer to 72 percent of GDP than to 60 percent in mid-2002.¹²

Another pitfall in measuring government debt relates to the treatment of contingent liabilities of the government that are not yet reflected in the official debt figures. The standard debt sustainability framework, of course, takes no account of such potential additions to government debt. In the Brazilian context, such off-the-books claims on the government are called “skeletons.” To their credit, the Brazilian authorities

¹¹ Citigroup (2003).

¹² Williamson (2002) takes a less restrictive definition of liquid assets of the central government, excluding only those public-sector claims that carry a long-term fixed interest rate; this leads to a net government debt figure 6 percentage points of GDP larger than the official figure. Goldfajn (2002) defends the official net debt figures as appropriate. See the discussion in section V.

officially recognized many of these skeletons during the 1994-2002 period;¹³ indeed, Goldfajn (2002) estimated that about one-third of the rise in Brazil's net public debt over this period was due to the recognition of skeletons. But the key question for assessing debt sustainability going forward is whether new skeletons will be found and/or acknowledged. Williamson (2002) notes that recognition of new skeletons in Brazil during the next six years could raise the ratio of net government debt to GDP by about 5 percentage points; some others (e.g., Favero and Giavazzi 2002) suggest higher figures for medium-term skeleton recognition (10 percentage points). Occasionally, the effect of new skeletons on the debt stock may be offset, at least partially, by government buy-backs of debt that have not yet been recorded in the official debt figures.

It is similarly not straightforward to find the appropriate figure for the real interest rate to plug into the standard debt sustainability formula. Two caveats merit mention. According to the standard formula, the relevant interest rate ought to be based on the interest paid by the government on its debt, that is, the (nominal) interest rate would be calculated as the ratio of interest paid to the stock of government debt. The problem is that when market conditions are unusually adverse, the authorities may well undertake "risky" debt management operations that make the interest rate observed last period a poor guide both to the equilibrium interest rate and to the interest rate likely to prevail in the future. Again, Brazil's experience provides relevant illustrations. In an effort to keep interest costs down, the authorities took on more currency risk over the past two years, leading to almost a doubling of the share of exchange rate-linked debt in domestic government debt—from 23 percent in 2000 to about 37 percent now. Given the sharp depreciation of the real over this period, this turned out to be a costly policy decision. More recently, with markets worried about debt sustainability under a possible Lula government, with interest rate spreads rising sharply, and with significant domestic debt rollovers coming on stream, the Brazilian authorities opted during the second half of 2002 to redeem maturing debt (rather than roll it over at very high interest rates) and to issue the bulk of new debt at short maturity.¹⁴ By so doing, they took on a risk of higher inflation and higher short-term interest rates in the future—since the debt redemptions fueled a large increase in the monetary base; the authorities also accepted higher rollover risk—if the debt had to be rolled-over again when internal or external conditions were

¹³ Argentina also recognized debt skeletons in the 1990s.

¹⁴ The average maturity of debt offered by public auctions is now about 20 months, with about 40 percent maturing within the next year.

poor. On the other hand, if the turmoil in the markets proved to be temporary, if financing conditions improved by the time new debt had to be rolled over, and if the currency strengthened, the strategy would be judged (ex post) as a smart one. Argentina's voluntary debt swap in the summer of 2001 provides another example of a debt management operation undertaken in extremis that makes the interest paid by the government in one recent period a misleading input for debt sustainability calculations; in that case, some near-term interest rate relief was exchanged for much larger debt payments in the medium term.¹⁵

Another caveat concerns the rate of inflation to be used to make the transition from nominal to real interest rates (on the debt). Here too, there is sometimes a temptation during periods of high concern about debt sustainability to pick the price index that produces the highest inflation rate and hence, ceteris paribus, the lowest real interest rate for the debt sustainability calculation. For example, if a large depreciation has led to a sharp rise in wholesale prices of tradable goods, the GDP deflator may show a much higher inflation rate than the consumer price index; note too that in periods when the GDP deflator shows a large temporary upward spike, nominal GDP will show a large increase, lowering, ceteris paribus, the ratio of public debt to GDP. It might be argued that the GDP deflator is the preferred deflator for consistency reasons since it is the same deflator to be used for translating nominal (GDP) growth into real growth. But this argument is less persuasive if backcasting with that price index (within the standard debt sustainability formula) produces bad forecasts for changes in the debt stock in earlier years. In addition, in cases where much of the debt is indexed either to the consumer price index (CPI) or to the overnight interest rate, or where the central bank follows an inflation-targeting framework based on inflation forecasts for the CPI, it could be argued that it is the CPI that is the appropriate deflator.

- (i) **The standard formula doesn't tell you what a "safe" government debt to GDP ratio is—only if it's stable, rising, or falling.** But clearly, stabilizing the government debt ratio at 30 percent of GDP does not produce the same level of vulnerability as stabilizing it at 90 percent of GDP. In the former case, the markets are not likely to be so concerned if you engage in some fiscal pump-priming during a recession and push the government debt ratio up to say 35 percent. Not so, if an emerging economy were to try the same expansionary fiscal policy starting from a debt ratio of 90 percent; in that case, the presumption is apt to be that the country is "off to the races." History also counts in the

¹⁵ See Mussa (2002); for a more positive assessment of that debt swap, see Cline (2002).

evaluation of a safe debt ratio. Because defaults and debt restructurings have been more frequent in Latin America than in other developing-country regions going back not only to 1950 but also to 1860 (IMF 2002a), investors are apt to be less comfortable with a high public debt ratio in Latin America than elsewhere.¹⁶ Remember too that for emerging economies in Latin America, there is no broader institutional framework, like eligibility criteria for entry into the European Monetary Union, that provides an externally imposed longer-term “convergence” anchor for public debt ratios. And emerging economies typically pay much higher interest rates on their debt than do industrial countries.

To sum up, for all the reasons outlined above, I think we need to be more “conservative” in evaluating debt sustainability in emerging economies. Just because net public debt to GDP in many emerging economies is below the Maastricht entry level of 60 percent doesn’t mean that these economies are not vulnerable to debt crises.

V. NEAR-TERM DEBT DYNAMICS IN BRAZIL

With these caveats in mind, let us consider the outlook for near-term debt developments in Latin America’s largest economy, namely, Brazil.

In June of last year, two of Brazil’s leading financial newspapers asked me about the sustainability of Brazil’s debt. My answer then was that the probability that Brazil would have to engage in a major debt restructuring by the end of 2003 was on the order of 70 percent. Because the new Lula government has thus far made quite responsible policy announcements and has appointed moderates to key economic posts, and because there has been a rally in Brazilian asset prices since the election, I think they have improved their odds somewhat—perhaps to 55-60 percent. But I still think a debt restructuring is more likely than not this year because most of the key fundamentals and policy challenges have not changed that much, because the prospect of a war with Iraq raises the specter of an increase in risk aversion toward high-yielding emerging-market credits, because inflation is surging, and because the central policy question will soon shift from “does the Lula government in office look better than we anticipated before the election” to “are the Lula government’s policy actions likely to be sufficient to solve Brazil’s debt and balance-of-payments problems?”

Why are the odds of a debt restructuring in Brazil not higher—say 95 percent like they arguably were in Argentina in August 2001. The answer is that Brazil has strengths that Argentina didn’t have before its collapse.

¹⁶ See IMF (2002a).

Unlike pre-crisis Argentina, Brazil has a managed floating exchange rate regime and a real exchange rate that is highly competitive. This means that the exchange rate can take some of the pressure of negative news without necessarily invoking an exchange rate crisis and that the fluctuation in the exchange rate acts as a disincentive to large currency mismatches in the private sector. Brazil's banks are better hedged against currency depreciation than were those in Argentina. Domestic monetary policy in Brazil is also not as tightly constrained by market confidence as it would be if Brazil were on a currency board or other fixed rate regime. At a current exchange rate of about 3.6 Brazilian reais to the dollar, price competitiveness is hardly a barrier to export expansion.

Brazil also has a sensible monetary policy regime of inflation-targeting that, at least until recently, has shown itself to be a good nominal anchor, capable of moving inflation down over time to the neighborhood of its inflation forecasts, while still responding to various shocks.

Again in contrast to pre-crisis Argentina, Brazil has in recent years demonstrated a willingness to run significant primary surpluses on the budget—recording surpluses equal to at least 3 percent of GDP for four years running.

Finally, Brazil has a better cushion of liquid assets—including 42-50 billion reais held at the central bank earmarked for debt service—to help combat bouts of adverse market conditions.

All that said, there are also good reasons for concluding that the probability of a debt restructuring is closer to 55-60 percent than say, 30 percent.

First, **slow growth periods are bad for debt sustainability**. In my view—as well as those of most forecasters—Brazil is likely to grow this year by between 1 and 2 percent. This would be roughly in line with the average growth rate of the past five years (1.5 percent).

Even if Brazil's potential growth rate is acknowledged to be higher, the external environment in 2003 is not conducive to reaching potential. About 50 percent of Brazil's exports go to the United States, Euroland, and Japan; another 25 percent go to the rest of Latin America. Growth in the United States, Euroland, and Japan this year is expected to be on the order of 2½, 1, and 0 percent, respectively—only slightly better than last year when Brazil grew by 1½ percent. Growth in the United States in the fourth quarter of 2002 was only ¾ of a percent on an annual basis. As noted earlier, the rest of Latin America (taken as a group) is barely growing at all and most of the economic spillovers within the region are negative—not positive. If a war with Iraq takes place in 2003, oil prices could be driven significantly higher—at least until the war is resolved; a \$10-a-barrel increase in the price of oil would, *ceteris paribus*, reduce Brazil's real

GDP by about 0.4 percentage points.¹⁷ Existing trade protection in the G-3 area—including agricultural subsidies and measures against foreign steel producers—are not helpful to Brazil's external prospects.

Nor does the present conjuncture provide much room for domestic monetary or fiscal policy easing that would normally be expected to support better growth prospects, especially in a relatively closed economy. With external interest rate spreads on Brazilian benchmark bonds still well above 1,000 basis points and with the markets watching the new government's fiscal policy intentions like a hawk, the Brazilian finance ministry clearly can't engage in fiscal policy pump-priming. And with inflation rates surging to 11-12 percent or more, the exchange rate still very weak, and oil prices on the rise, the Brazilian central bank similarly can't reduce interest rates until they see solid progress against inflation.

Put in other words, you are likely to have a pretty low growth number to plug into the debt sustainability equation for government debt.

Second point. **High real interest rates are also bad for debt sustainability, and I see little likelihood that the average real interest rate for 2003 will be lower than 10 percent.** Favero and Giavazzi (2002) compute the average real cost of government debt over the 1998-2001 period as 9.6 percent—ranging from a low of 8 percent in 1998 and 2000 to a high of 14 percent in 1999. Goldfajn (2002) calculates the average real cost to have been a little below 20 percent over the August 1995-June 1999 period and then about 10 percent over the July 1999 to May 2002 period. Admittedly, this is the element of debt dynamics subject to the widest margin of error—in both directions.¹⁸ What are the arguments for expecting real rates to be in the low double-digits this year?

The nominal overnight SELIC rate is currently 25½ percent, and the yield curve for SELIC-linked bonds is mildly upward sloping—with, for example, the July 2003 contract yielding about 28 percent. CPI inflation is expected to be about 12 percent this year.¹⁹ This translates into a real rate on SELIC-linked debt over the next year of perhaps 13 percent. The overnight interest rate is particularly important in Brazil because nearly 50 percent of the domestic public debt is linked to it.

Inflation this year in Brazil may well be greater than 11-12 percent—maybe even as high as 15 percent or more. With both base money and broad money up over 20 percent last year and with a huge currency depreciation over the same period, there is a lot of inflationary pressure in

¹⁷ See Lachman (2003).

¹⁸ Some analysts have treated this uncertainty over the future direction of interest rates as a multiple-equilibrium problem; for example, see Williamson (2002).

¹⁹ The central bank's latest survey expects inflation (IPCA index) to be about 11½ in 2003.

the pipe—notwithstanding improved efforts to mop-up liquidity recently. But if actual inflation turns out higher than what inflation surveys currently suggest, it is unlikely to result in a lower real rate because the central bank will probably choose to raise overnight rates (at least one-to-one) in line with any excess over the consensus inflation forecast. With a new central bank governor seeking credibility and with the central bank just having had to double its inflation target for 2003, I don't think the inflation-targeting framework could stand a huge upward deviation from its revised forecast (beyond the 2½ percent margin around the central inflation forecast). Going in the same direction, with the currency so weak, a big overshoot on inflation would probably push the exchange rate much lower, with negative feedback effects on the debt ratio. And with only 2 percent or so of the domestic public debt in the form of fixed rate debt, there is not a big payoff (in terms of debt dynamics) in generating higher inflation—unless you can do it without having the nominal interest rate rise and/or the exchange rate fall—no easy feat—or unless inflation raises tax revenue more than it raises government expenditure.

There is also inflation-indexed debt, fixed rate debt, and a miscellaneous component of “other” public debt that together account for about 13 percent of total net public debt. The inflation-indexed component has recently carried a real interest rate of roughly 10 percent; the fixed rate debt and most of the “other” debt component can be assumed to follow the real rate on the SELIC-linked debt with a lag.

Debt payable in local currency but indexed to the exchange rate and external debt denominated in foreign currency are the other big components of public debt, accounting together for over 50 percent of the total. Interest rates on these foreign-currency-related debt components are extremely difficult to forecast because they have been so variable over the past year; in addition, there is more than one way to do the calculation. Illustrative of the volatility in dollar-linked rates, in January-April of last year, interest rates on the dollar-indexed debt (for one-year maturity) were running below 5 percent; then in June through October, they surged—spending much of the period in the 25-40 percent range, only to fall back to the teens since December. Similarly, as noted earlier, spreads on external debt denominated in dollars have similarly shown wide gyrations over the past year.

To calculate the real interest rate on the dollar-linked public debt (denominated in local currency), I follow the procedure outlined by my IIE colleague John Williamson (2002), that is, I use the dollar interest rate plus the expected depreciation or appreciation of the real to get the nominal interest rate in reais and then deflate by the expected inflation rate to get the projected real interest rate. On-shore dollar rates have been running in the 10-20 percent over the past several weeks (for example, the July 2003 contract stood at about 14 percent on February 12).

I expect the nominal exchange rate for the real at end-2003 to be about 10 percent more depreciated—3.88 reals per US dollar—than its end-2002 value (3.53 reals per US dollar); given expected inflation differentials, this would be close to assuming a constant real exchange rate. I base the weak nominal exchange rate forecast on the upsurge in Brazilian inflation, on the government's stated intention to reduce the amount of foreign exchange cover it supplies to the market in the face of large maturing dollar-linked bonds and foreign-exchange swaps maturing, on regional spillovers from other weak currencies (especially the Mexican peso), and on the need to reduce further the current-account deficit. Taking a dollar-linked interest of say 15 percent, plus an expected real depreciation of 10 percent, leads to a nominal rate of about 25 percent; deflating that by say, a 12 percent inflation rate produces a real interest rate of say, 12 percent (on dollar-linked bonds).

Any dollar-denominated international borrowing by the government this year from the private sector (be it rollover of existing debt or new debt) would presumably have to pay the prevailing external interest rate spread. That spread is currently running about 1,300 basis points over (ten-year) US Treasuries. This translates into a nominal interest rate in dollars of say, 17 percent. If we wanted to translate borrowing cost into local currency, we would again need to factor in an expected depreciation of the real of 10 percent to get a nominal interest rate in reals of about 28 percent. Deflating this by the expected Brazilian inflation rate of 12 percent yields a real interest rate of 15 percent. If we did the calculation of external borrowing in dollars, we would deflate the nominal interest rate in dollars—17 percent—by the expected inflation rate in the United States of say, a little over 2 percent, to get a real interest rate (again) of about 15 percent. Alternatively, the Brazilian government could decide not to issue the planned \$4 billion in international bonds this year if interest rates were viewed as too high; these bonds would presumably then have to be redeemed using international reserves; this would lower direct interest costs but it too would carry a price (in terms of reduced confidence) —since net international reserves (exclusive of IMF money) have been in decline since mid-2001, falling from \$34 billion in May 2001 to \$16 billion in December 2002.²⁰ It might be argued that because the default probability has been falling over the past few months in Brazil, a much lower spread should be assumed for 2003. But one should recall that the spread not only reflects the default probability but also the expected haircut in the case of default; JP Morgan (2002), for example, has done an exercise that indicates one can generate a spread similar to the current one even with a default probability as low as 30 percent, if one assumes that the benchmark bond yields only 30 cents on the dollar in case of default.

²⁰ See CSFB (2003).

There is also a larger component of “old” (non-maturing) external dollar-denominated debt that carries lower interest rates, including debt owed to the IMF, the Paris Club, some Brady and pre-Brady bonds, and some global and euro bonds.

Based on analysis of balance-of-payments data, the average nominal interest rate on external public debt last year (2002) was about 7¼ percent. Suppose we assume that roughly the same nominal rate will prevail this year. This would translate into a real interest rate (in dollars) of roughly 5 percent; if converted back into local currency, the real rate would be about the same (i.e., 7½ percent nominal interest rate, adjusted by a 10 percent depreciation of the real and deflated by a 12 percent inflation rate).

It is relevant to note that if we were to do the debt sustainability exercise in its traditional longer-term time horizon (say, ten years), and if external interest spreads were to remain at their present elevated level (over 1,300 basis points), then the influence of old dollar-denominated debt at much lower interest rates would fade in importance relative to the much-higher marginal cost of borrowing, and the assumed real interest rate on external public debt would be much higher (closer to 15 percent) than assumed here for this year. Indeed, any longer-term scenario in which the average real interest rate on public debt (internal plus external) is in the 13-15 percent range, for instance, practically guarantees a verdict of public debt unsustainability for feasible longer-term assumptions about the real growth rate and primary budget surpluses. That is also why debt analysts typically conclude that it is not enough for the present Brazilian government to stabilize the external interest rate spread at say, 1,300 basis points; they have to get that spread below 1,000 basis points to make a go of it. Of course, by an analogous argument, any extension from what is likely to happen this year to debt sustainability over the longer term cuts both ways. That is, it could be argued that the present conjuncture in Brazil is unusually adverse relative to the normal longer-term outcome and that external interest spreads in 700-800 basis points range (and real growth rates in the neighborhood of 3 percent) are apt to characterize the future more accurately than today’s 1,300 basis point spread.

For what it’s worth, when I put all these interest rate pieces together, I get a weighted average real interest rate on public debt for 2003 that is just about 10½ percent. This is about 1½ percent higher than the long-term (2002-09) projection of 9 percent made in July of last year by Ilan Goldfajn (2002), a deputy governor of the Brazilian central bank. In my view, a relatively high real interest rate of 10 percent or so for this year is not inconsistent with the heavy demands on financing by government financing requirements. Although most attention is typically focused on the primary budget balance, one should note that the overall fiscal deficit last year was just under 10 percent of GDP and that the general government interest burden amounted to 31 percent

of tax revenue. Nor would I call a 10½ percent real interest rate on the debt a “worst case” scenario. If a war with Iraq generated a large increase in foreign investor risk aversion toward emerging economies, one could envisage a considerably higher risk premium on Brazil’s obligations (beyond what is already priced in).

Point number three. **I think it will be difficult for the government to deliver a primary surplus this year much above 4 percent of GDP.** At first, the government can try to satisfy demands from its supporters for greater social expenditures by redistributing expenditures from lower-priority categories, for example, canceling orders for military aircraft and using the funds for hunger programs. But the scope for such redistribution should narrow over time, creating tension with the requirements for fiscal austerity and control of inflation. Standard and Poor’s (2003) estimates that after debt service, personnel expenditures, and mandated transfers and pensions, only 8 percent of central government revenue will be available for discretionary spending. With inflation now running in double digits and with at least four former union leaders in the cabinet, it’s not going to be easy to engineer savings on minimum wages. Likewise, with a relatively high overall government tax ratio (roughly 35 percent of GDP), the scope for future tax increases is smaller than in emerging economies with much lower ratios. The government has emphasized that social security reform is one of its top priorities—an understandable goal since the public-sector pension scheme alone generates a deficit equal to 4 percent of GDP while covering only one-fifth of pensioners.²¹ Maybe—like Nixon going to China—it takes a President from the workers party to deliver social security reform. But also recall that the previous government tried it without success, that the Lula government does not have a majority in the legislature, that it takes a three-fifths majority in both houses of Congress to approve constitutional reforms, that Lula’s party resisted cuts in civil-service pensions in the past, and that there are possible judicial challenges to such reforms. Given the government’s recent announcement that it is raising the primary surplus target for this year to 4¼ percent of GDP and given the poor outlook for growth and real interest rates, it would not be surprising if many of President Lula’s traditional supporters begin to grumble about the PT party having lost its way. Note too that over 40 percent of the planned cuts in government spending this year (associated with the new 4¼ primary surplus target) are assigned to states/municipalities and state-owned enterprises where prospects for implementation are likely to be lower than for spending cuts pledged by the central government.

What does all this imply about the near-term evolution of net public debt in Brazil—at least according to the standard debt accumulation equation?

²¹ See Standard and Poor’s (2003).

According to Standard and Poor's (2003) latest estimates, net general government debt in Brazil (that is, net of liquid assets) at end-2002 was 67 percent of GDP. Deutsche Bank's (2003) latest estimate of net public debt at end-2002 was about 63 percent of GDP. In contrast, the Banco Central do Brasil's latest figure for net public debt was just under 56 percent of GDP. I am inclined to regard the central bank's estimate as too low—both because it classifies too much as liquid assets and because the price index used to estimate nominal GDP in the last six months of the year may well have been reflecting an unusually large, temporary upward spike in some wholesale prices. If we take the central bank's estimate of net public debt, add (as does Williamson 2002) 6 percentage points for illiquid assets improperly classified as liquid, and add another percentage point for skeleton recognition this year, we arrive at a figure for net public debt (at end-2002) of 63 percent of GDP.

Following my earlier line of argument, suppose that we project real growth in 2003 at between 1 and 1½ percent—call it 1¼ percent. This is close to many recent private-sector forecasts. For example, recent Brazilian growth forecasts for 2003 from Citigroup (2003), CSFB (2003), Deutsche Bank (2003), Goldman Sachs (2003), JP Morgan Chase (2003), and Standard and Poor's (2003) are 1 percent, 1 percent, 2 percent, 1.4 percent, 1.6 percent, and 1.5 percent, respectively. Drawing on the previous discussion, let me also assume a 10½ real interest rate on the debt. As regards the primary surplus, let's adopt the government's new target of 4¼ percent of GDP; following Williamson (2002), we also need to add to the primary surplus about ½ percent of GDP to represent the interest earned on the government assets that we have excluded from the net debt calculation.

The debt accumulation formula then says that the net public debt ratio (expressed as a share of GDP) would rise by 1 percent this year. Alternatively, **to keep constant the net public debt ratio, my estimate is that the primary surplus would need to be about 5¼ percent of GDP—a higher figure (1 percent of GDP more) than the Brazilian authorities have been willing to consider so far.** Of course, a more optimistic scenario for growth, real interest rates, and the exchange rate, would generate a lower required primary surplus. For example, if one assumed growth this year would be say, 3 percent (instead of 1¼ percent), then a 4 percent primary surplus would just about meet the stability test. Similarly, if we assumed that the average real interest rate would be 8¾ percent (instead of 10½ percent), the same conclusion would apply. Still, I maintain that the debt situation remains precarious.

One reason is history. In 1994, the ratio of net public debt to GDP in Brazil was only 30 percent; by last year, that ratio was more than double that figure and this adverse development over a period when the government had both substantial revenues from privatization and was

increasing its tax ratio. **In not even one of the past eight years did that net public debt ratio decline**. If the Lula government fails to show by say, the late summer that it is making real progress on debt sustainability, I think there is a danger that the market will conclude that—rhetoric aside—we are seeing a continuation of the same old trend. This, in turn, would raise the odds of a disappointing market reaction.

A second reason for concern is that debt sustainability is not just about domestic debt. **A large external debt and a serious balance-of-payments problem also have to be considered**. According to most forecasters (e.g., see Citigroup 2003), Brazil's external financing requirement (current account, short-term debt, and medium and long-term amortizations) this year is likely to be about \$32 billion, including almost \$23 billion in debt amortizations by the private sector; this is an improvement over last year's \$38 billion external financing requirement and over the private sector's \$26 billion of external debt amortization—but it's still a lot of money. Brazil's ratio of expected external financing requirements to international reserves in 2003 is about twice as high as that of its "B" rated peer-group emerging-market credits.²²

To be sure, Brazil's current account deficit has registered an extremely large improvement over the past two years—going from a deficit of nearly \$25 billion (4.2 percent of GDP) in 2000 to a deficit of about \$8 billion (1.8 percent) last year. But two other facts are also worth keeping in mind.

The improvement in Brazil's current account has been driven primarily by weak economic activity and a much-depreciated exchange rate. In 2000, the Brazilian economy grew by almost 4½ percent and the exchange rate (at the end of the year) stood at 1.95; last year, the corresponding growth and exchange rate figures were 1.5 percent and 3.53 (reais per dollar). Most of the improvement in last year's current account came from a 15 percent fall in imports; exports were up in value terms by only 3 percent, although export volumes picked up sharply in the second half of the year and there was a terms of trade loss. This suggests that there is a strong potential conflict between some elements of government debt sustainability and continued improvement in the current account. If economic growth rebounds (say, to 4 percent) and the exchange rate appreciates sharply in 2003 (say, to 2.75)—as the debt sustainability optimists envision—then it is unlikely that the current account improvement would continue.

Second, one also needs to take into account the sizeable decline in inflows of foreign direct investment (FDI); it was roughly \$16 billion last year—about half of its level in 2000.²³ In

²² See Standard and Poor's (2003).

²³ Note too that roughly half of the 2002 FDI inflow represented conversion of debt into equity, reflecting difficulties encountered by Brazilian companies in rolling over debt; see CSFB (2003).

addition, most analysts expect FDI to register a further decline this year—a decline, which if it materialized, would just about offset the anticipated improvement in the current account this year.

Since about 70 percent of the external debt is accounted for by the private sector and since it is private debt amortizations this year that constitute the main element in Brazil's external financing requirement, **a key question is whether Brazilian firms will be able to attract that scale of external financing**. I think getting that financing will be dicey—for several reasons.

Banks in G-7 countries are still reeling from losses suffered on loans to the technology, media, and telecom sectors. The losses they suffered in Argentina are also still fresh in their minds. As such, they are not likely to be enthusiastic about increasing or maybe even maintaining exposures in Brazil; indeed, it was that reticence that made it so difficult last year (at the time of the IMF agreement) to get a firm and comprehensive agreement on future exposures with the banks. According to a recent IMF (2003) report, international banks' credit lines have continued to decline during the past two months.

While risk aversion probably peaked last year, various uncertainties on the horizon—including a war with Iraq and its effect on oil prices, the possibility of a double-dip recession in the United States, and remaining high crisis vulnerabilities in some of Brazil's neighboring countries—could well operate to make foreign investors cautious about their Brazilian exposures. Those investors who do want to cross-over into emerging economies may prefer to go to China, South Korea, Mexico, Chile, and several of the EU enlargement economies where debt burdens and crisis vulnerabilities are significantly lower than in Brazil. That would represent a continuation of what we saw much of last year when investment grade emerging-market credits saw their spreads declining to near-record lows while the lower grade credits experienced a substantial widening.

It is also useful to place the recent rally and easing of the external credit constraint over the past two months in perspective. Specifically, the IMF (2003) reports that loan and bond issuance by Brazilian borrowers fell by 80 percent in the second half of 2002 compared to a year earlier; that the selective resumption of activity from September onwards was characterized by small transactions, high yields, required credit enhancements, and short tenor for unsecured loans; that the flurry of bond-market issuance in the first three weeks of January 2003 (totaling \$1.4 billion) is only about half of the January issuance of the past two years; and that several market participants indicated that secondary market spreads would need to decline to about 900 basis points (from the existing 1,300 level) before it would be possible for the sovereign to reenter the market with a plain-vanilla bond.

In sum, the Lula government has made a good start (since the election in mid-October) in calming investor fears about debt dynamics. But the large domestic and external debt is still there; near-term growth and inflation prospects are adverse; the probability of a marked exchange rate appreciation that would help to produce a quick reduction in the government debt ratio has decreased; the average cost of debt is still quite high; and it remains to be seen how a larger planned primary surplus is going to be reconciled with increased expectations for meeting social needs. Also, it would be unusual if a new government did not make any serious policy missteps during its first year in office.

At this juncture, I think the Lula government's best course of action would be the following:

- **Aim for a higher primary surplus in the budget of at least 5¼ percent of GDP**; a primary surplus of 4¼ or 4½ percent is just too close to the edge for an economy with a bad longer-run track record on debt accumulation, for a government that has to negotiate both with other political parties and state governments to cut government spending, and especially, for a global economy that is heading into a period with increased downside risk; as an example of the many risks that can arise unexpectedly, Rio de Janeiro announced on January 31 (2003) that they would default on 25 billion reais of debt owed to the federal government because a court held that the federal government could seize tax revenues to cover earlier missed payments—and this whatever the Fiscal Responsibility Law says about relations between the federal government and the states.
- **Grant the Banco Central do Brasil operational independence as soon as possible**; with a new central bank governor, inflation much on the rise, a weak exchange rate, and new questions about the effectiveness of the inflation-targeting framework, the last thing the government needs is for domestic and foreign investors to get the idea that inflation control is being sacrificed to other objectives. Capital flight is not now a serious problem but it could get to be one if monetary stability is lost. Similarly, the farther the central bank gets “behind the curve” on controlling inflation, the greater the likelihood that increases in real interest rates (adopted belatedly to get “ahead of the curve”) and declines in the nominal exchange rate will propel the economy into the type of “vicious circle” discussed earlier in section IV.
- **Make maximum efforts to negotiate trade arrangements that can begin to bring Brazil's trade openness over the medium term into a more normal (higher) range.**²⁴
Brazil will continue to be in a bind trying to meet its foreign exchange needs if it doesn't

²⁴ See Schott (2002) for a discussion of why an FTAA would be helpful to Brazil.

substantially expand its exports. Exports are currently three times as large as FDI. In this regard, Brazil has to become more like Mexico and Chile if it is to get its external debt problem behind it.

- **Have Plan B ready.** If despite strong efforts to emerge from the current crisis, the recent rally fizzles and interest rates, capital outflows, and the exchange rate were to go back to the dark days of last summer and early fall, the government ought to give serious thought to doing a major debt restructuring with the cooperation and support of the IMF. Heaping more and more debt on an already highly indebted economy that doesn't have good growth, interest rate, and exchange rate prospects and that can only go so far in increasing the primary surplus is not a recipe for success. In that situation, it is better to accept the short-run pain of a restructuring to set the stage—in concert with disciplined macroeconomic policies—for a new start on sustained economic growth.

VI. IMPLICATIONS OF DEBT SUSTAINABILITY ISSUES FOR THE IMF AND THE G-7

What do these debt sustainability issues imply about the appropriate policies of the IMF and the G-7. Here, I would emphasize five points.

First, IMF surveillance has to pay much greater attention than in the past to the build-up of vulnerable external and domestic debt positions in emerging economies. In 1992, three of the nine larger economies in Latin America had ratios of net public debt to GDP exceeding 40 percent; by 2001, that number had grown to nine.²⁵ According to the IMF (2003b), these rising debt ratios were symptomatic of deeper weaknesses in fiscal systems including narrow revenue bases, combined with weak collection mechanisms and frequent resort to tax amnesties; rigidities in current spending; and inflexible arrangements with sub-national levels of government. The Fund staff now argue that Latin American countries ought to be aiming toward eventual upper limits on (net) government debt-to-GDP ratios of 25-30 percent and that fiscal policy should be dominated by the debt constraint when debt ratios reach the upper limit of a prudent band.²⁶ I heartily agree.²⁷ But if this is to happen, Fund surveillance itself will have to be firmer in speaking out against fiscal deficits during periods of buoyant economic growth. As another IIE colleague, Mike Mussa (2002), emphasized in his recent book (on Argentina and the

²⁵ See IMF (2003b).

²⁶ The IMF (2003b) points to Chile's experience from the late 1980s to the mid-1990s as demonstrating that such a lowering of public debt to prudent levels can be accomplished with sustained adjustment.

²⁷ While one can quibble about precisely where the upper limit on net public debt ratios should be set (e.g., 25-30 percent versus say, 30-35 percent or even a little higher) a key point is that the IMF has to cease giving emerging economies "the benefit of the doubt" when they consistently exceed the limits.

Fund), even during the 1993-98 high-growth years, Argentina consistently ran a deficit in the consolidated public accounts and public debt rose from 29 to 41 percent of GDP. Not having rung the alarm bell about the steady rise in Brazil's net public debt ratio over the past eight years likewise represents a failure of surveillance. IMF surveillance will need to be more concerned too about the structure of debt.²⁸ Debt management proposals that lower interest rates in the short-term at the cost of taking on much greater risk over the longer-term should be scrutinized very carefully. Allowing the share of exchange rate-linked debt to get as high as it is in Brazil is an invitation to trouble. If markets don't want to hold fixed rate debt, a better transition device is inflation-indexed debt. Most emerging economies are apt to have better control over the future inflation rate than over a floating exchange rate. Over time, one wants to move toward the development of larger and more liquid local capital markets where you can sell longer-term, local-currency, fixed rate debt.²⁹ That isn't going to happen overnight but in contrast to those who believe in the "original sin" story, I think it's doable over the medium term.³⁰ Having derivative markets so that foreign investors can hedge currency risk is important because it's currency risk that discourages many foreign investors from buying local-currency bonds in the domestic market.³¹ Having an inflation-targeting framework so that there's a decent nominal anchor in the economy would also pay large dividends; in this connection, empirical work done by Khan and others (2001) shows how crucial a low rate of inflation is for financial-market development in emerging economies.

Second, **the Fund has to be much tougher than in the past on making debt sustainability a key condition for IMF lending.** The trouble with Fund conditionality over the past decade is that too much emphasis has been placed on things not so central—like very detailed structural policy conditions in Indonesia—and not enough emphasis has been paid to what ought to be the Fund's bread and butter—namely, realistic real exchange rates, sustainable debt positions, and sensible macroeconomic policies.

I have heard the view that neither the IMF nor the US government can tell an emerging economy that it should default on its debt. If we are talking about conditions for large IMF loans, I think this view is nonsense. Why should debt sustainability be any less relevant a condition than a realistic real exchange rate? Given the large costs associated with debt restructuring, only the

²⁸ See Allen et al (2002) for a presentation of the balance sheet approach to financial crisis, as well as for an analysis of how debt structure matters for crisis vulnerability.

²⁹ Of course, authorities in emerging economies need to take care that the development of local capital markets doesn't serve to weaken fiscal policy discipline.

³⁰ For an elaboration of the argument why the original sin hypothesis is too pessimistic about the development of local-currency capital markets in emerging economies, see Goldstein (2002a).

³¹ See Burger and Warnock (2002).

naïve recommend debt restructuring lightly. But when the debt profile doesn't look like it's going to stabilize at a reasonable level under the most likely scenarios, **not** restructuring is going to be an even more costly policy—just like not devaluing a highly overvalued exchange rate leads to a larger and even more costly adjustment down the road. As I have argued earlier (Goldstein 2002b), we shouldn't want a Fund that is so risk-averse that it is willing to lend only to the Switzerlands and Singapores of the world; but if the Fund cannot speak out forcefully about debt vulnerabilities when they are on the rise, and even more so, if it cannot make debt sustainability a core condition for IMF financial assistance, it has no future.

If the Fund makes very large loans to countries with unsustainable debts, it's ultimately going to run into large arrears, it's going to jeopardize its relations with its key creditors, it's going to be restricted from helping other debtor countries in need, and the debt restructurings it sought to avoid are going to come anyway—albeit later at even larger cost. Just add up the Fund's current exposure to say, Argentina, Brazil, Indonesia, and Turkey—to say nothing of a highly questionable smaller case like Uruguay—and ask what happens if say, Brazil and Turkey don't make it without major debt restructurings.³²

I am not saying that I or anyone else can gauge debt sustainability with precision or get all the calls right. It's rather a matter of probabilities and risks. The probability to look at is not the simple conditional probability of default at a given debt ratio—say 50 percent of GDP; it's instead the probability of default conditional on the whole set of factors impacting debt sustainability—the size and structure of the debt, the outlook for both the debtor economy and the world economy, the condition of the private creditors lending to the country, so on and so forth.

Let me also take an analogy from the basketball court to make my point. I am not a highly skilled basketball player. Still, if we go over to the gym and you give me two garbage cans filled with basketballs and ask me to shoot from the half-court line, my guess is that I will make say, 2 or 3 out of 25 shots. It's even possible that if I were playing in a crucial game and the clock was running down to zero, that I might make a half court shot to win the game. But what I am pretty confident about is that if I keep shooting from half court, I will miss many more than I make.

Lending into an unsustainable debt position also will surely spillover into other areas and damage the Fund's credibility. The best example is the Fund's dealings with Argentina over the past two years. Even if one puts aside the questionable December 2000 loan to Argentina, I think

³² If the Fund were to suffer big losses on some of its larger loans, the issue is not just the extent to which major shareholders would provide additional financial resources but also the “conditions” which might be attached to such a recapitalization.

the decision to lend in August 2001 was as close as one gets in the real world to a 95 percent probability of failure;³³ in the end, neither a devaluation nor a sovereign debt default was avoided; the costs of the crisis to Argentina were huge and the Fund would not be getting repaid without the rollover loan agreed a few weeks ago.

To induce Argentina to repay, the Fund set a bad precedent and damaged its longer-term credibility by establishing “two track conditionality” and by violating its own recently revised policy on lending into arrears. If Argentina can get a Fund program with a much less stringent level of conditionality because it owes the Fund a lot of money, what is to prevent other countries with large obligations to the Fund now or in the future from asking for “equal treatment” —be it Uruguay or Turkey or whoever. How persuasive will be the Fund’s advice (to Japan and other countries) to end “evergreening” in banking systems when it is engaging itself in the same practice? Likewise, if the Fund is trying to convince private creditors—be it in the context of the Sovereign Debt Restructuring Mechanism (SDRM) negotiations or otherwise—that they mean what they say about what characterizes “good faith” negotiations with private creditors as a condition for lending into arrears, what does it do to their credibility when in the first big case that comes down the pike, they ignore those characteristics and give the country the money anyway? And what is the point of a policy stance by the Fund’s largest shareholder that says we no longer offer bilateral financial assistance to countries in trouble—we only do it through the Fund—if Fund lending decisions are going to be highly politicized anyway—perhaps even over the objections of Fund management and/or staff? Yes, the social costs of the crisis in Argentina are huge. But if the G-7 want to provide humanitarian assistance to Argentina, they should do it bilaterally—not by compromising the Fund’s conditionality.

Third, what about the argument that if only an SDRM and/or collective action clauses (CACs) were in place, the Fund would be able to say “no” more often to requests for lending into unsustainable debt positions because the prospects of a chaotic default would then be lower? Perhaps.

I believe both the SDRM and CACs would be welcome additions to the crisis-resolution tool kit. But I also think that **the dominant line of influence runs not from the SDRM and CACs to smaller Fund bail-outs, but rather the other way around.** The problem at present is that neither private creditors nor emerging-market borrowers have strong incentives to adopt an SDRM or CACs. Why should either of those parties push for a change in the status quo if they continue to believe that Fund financial rescues will cover a satisfactory share of their downside risk. The present crisis resolution framework is a three-party game where both private creditors

³³ I expressed a similar view at the time of the IMF loan to Argentina; see Goldstein (2001).

and sovereign emerging-market borrowers have a strong, shared interest in seeing that the third party—namely, the Fund—provides generous insurance arrangements. Other incentives for adopting CACs that were discussed earlier, such as making eligibility for certain Fund loan windows—like the Contingent Credit Lines (CCL)—contingent on having CACs in bond contracts, are no longer on the table. Nor is it likely that the US government is going to press the Securities and Exchange Commission to require that emerging-market bonds issued and/or traded in the US market carry CACs. And the argument that private creditors should embrace an SDRM because, without it, large Fund loans will dilute their own claims on the country, is not convincing either. Unlike a formal bankruptcy procedure wherein the seniority of debtor-in-possession financing is paired with an automatic stay so that junior creditors cannot run, no such provision applies to Fund loans. In cases where the disbursement of Fund loans has a large upfront component, where the repayment of Fund loans doesn't take place until three-to-seven years after the agreement is made, and where the remaining maturity of sovereign debt is short, private creditors favor Fund intervention not only because it may increase the size of the pie but also because the Fund money allows them to “run” at much lower cost.

For all these reasons, I believe action on Fund access limits—along the lines of the Bank of Canada-Bank of England proposal (Haldane and Kruger 2002) or the old Council on Foreign Relations proposal (Goldstein 1999)—is a sine qua non for making much progress on either the SDRM or CACs. Absent such measures and their implementation in the field, one can build these financial architecture elements but—to borrow a phrase from a popular movie—“they will not come.” Alternatively, if one prefers to draw inspiration from novels not movies, we currently have what one astute observer recently called “CACs 22”: without CACs or a close substitute, the Fund is not willing to restrict its lending—and without limits on that lending, there is little incentive to adopt CACs.

In the end, I think the Fund should be more cautious about lending into very risky debt situations—even absent an SDRM or wider use of CACs. But that would require a willingness on the part of at least one or two major shareholders, along with Fund management, to withstand the political pressures to disburse. A good test of that may be coming in the next year. If the rally in Brazil stalls, I think it is likely that the Brazilian authorities would ask the Fund to frontload the remaining \$24 billion agreed in the present Fund program; if the Fund were to agree to that request, this would increase very significantly the Fund's exposure and risks. Similarly, if the Fund program with Turkey goes seriously off track and the situation there becomes more critical, there could well be a request for large additional financing.

Fourth, **if the debt restructuring in unsustainable debt situations did happen more often in the future, there would continue to be an important role for Fund financing in easing the adjustment costs of a restructuring.** In this sense, the view that paints Fund financing and debt restructuring as mutually exclusive policy options is surely overdrawn. Two of the more striking characteristics of sovereign debt in emerging economies is that much of the domestic component is held by financial institutions in that country and that these sovereign bond holdings frequently account for a multiple of the capital of these financial institutions; for example, banks in Brazil hold almost 60 percent of federal debt and it has been estimated that a 30 percent haircut on that debt would wipe out their capital.³⁴ Thus, in cases where there is a large writedown of sovereign debt, banks and others will be rendered insolvent and it will become that much more difficult for them to recapitalize themselves after the restructuring by selling government bonds (even if the new bonds are said to be senior to the old ones). In such a circumstance, some Fund financial assistance, under appropriate conditionality for rebuilding the financial system, can be a key element of the post-restructuring recovery.

Finally, my last point. If the Fund were to be tougher on lending into questionable debt positions, does this mean that the Fund can do nothing about the on-going crisis in Latin America—beyond lending to clearly solvent borrowers that request assistance? I don't think so. **One area where the Fund could be helpful is in “cushioning” of deflationary shocks since many of these countries have little room for policy maneuver once such shocks occur.** On the trade side, the Fund should consider reviving the use of the “compensatory financing” to cover temporary shortfalls in export receipts that are “largely beyond the control” of emerging economies. This would provide more cushioning in case the G-3 recovery stalls. On the financial markets side, the Fund might explore with financial markets and emerging-market countries the possibility of moving toward GDP-indexed bonds. Again, the idea is to get greater cushioning in the case of adverse outcomes—more like equities. With existing bonds, when an adverse outcome arises, the lender can insist on getting repaid in dollars but then he is likely to get only some share of the contract amount. Alternatively, he can get paid the full contract amount--albeit in a much depreciated currency. A recent Fund working paper by Borensztein and Mauro (2002) makes, I think, a good case for why GDP-indexed bonds would be better than what we have now. This also won't happen overnight but while the Fund is negotiating/debating with other parties about the desirability of an SDRM, it might as well diversify its portfolio and work on another initiative.

³⁴ See JP Morgan Chase (2002).

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