PUBLIC DEBT IN EMERGING MARKETS: IS IT TOO HIGH?

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The potential risks associated with high levels of public debt have long been a concern of economic policymakers around the globe. In the industrial countries, the need to strengthen fiscal positions and reduce public debt levels to accommodate the pressures that population aging will put on government budgets in the future has received considerable attention in recent years (see, for example, the May 2001 *World Economic Outlook*, European Policy Committee, 2001; and Turner and others, 1998). For emerging market economies, high public debt has often had more immediate consequences for economic performance, with debt crises – and the resulting painful periods of economic adjustment – having been a recurring feature of the histories of many of these countries.

Following a period of relative calm in the first half of the Nineties, during which public debt levels in many countries declined, recent developments have once again brought to the fore the issue of public debt in emerging market economies. Public debt has increased quite sharply in recent years across a broad range of emerging market economies, there have been high profile and costly debt defaults or distressed debt restructurings in Argentina, Ecuador, Pakistan, Russia, Ukraine and Uruguay, and other countries – Turkey, for example – have experienced severe fiscal difficulties. These developments have led to the suggestion that – despite the currently benign environment in global financial markets – emerging market economies may once again be on the verge of serious public debt problems.

Discussions of the economic impact of public debt go back at least as far as the eighteenth century when debt problems in France and Great Britain began to mount. More recently, the political economy aspects of public debt have also received increasing attention.[1] There are of course valid reasons why a government may choose to borrow and accumulate debt. The debt may be used to fund spending that contributes to broader economic and social objectives. Financing public investment – for example, by improving physical infrastructure – might raise the rate of return on private capital or provide something that the private sector would not provide because of externalities, while higher spending on education or health care may enhance a nation's human capital. Further, if government spending has to be

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[1] In this literature, debt is seen in a strategic context where the government can use it to finance expenditures or tax cuts to boost its reelection prospects, or to try to constrain the actions of successor regimes (see Rogoff, 1990, and Persson and Svenson, 1989).

temporarily high today because of, say, a war or a natural disaster, debt could be used as a buffer to limit the need to immediately raise taxes (see Barro, 1979). Financing countercyclical fiscal policy also has an important role in helping stabilize economies and smooth business cycles.

Large public debt burdens can, however, have a significant negative effect on economic activity. They require high taxes to finance and put upward pressure on real interest rates, "crowding out" private investment. When a government is no longer able to finance its deficits, it is forced to contract spending or raise revenues, often at a time when fiscal policy is needed to help stabilize the economy (fiscal policy becomes procyclical rather than countercyclical). When it cannot take these actions, a debt crisis ensues and the government is forced to default or inflate the debt away (an implicit default), both of which entail large economic and welfare costs.

Given the recent rise in public debt in emerging market economies, two increasingly important questions are at what point does public debt become too high?[2] and what policy actions does a government need to take to ensure that its debt is sustainable? A recent paper by Reinhart, Rogoff and Savastano (2003) has investigated the "intolerance" of some emerging market economies to external debt, and has examined episodes of large external debt reductions in these economies. To date, however, few studies have empirically examined public debt sustainability or large *public* debt reductions in emerging market *economies*, partly because of the difficulties in constructing a dataset on public debt in these countries. This paper seeks to address this gap and build on the work of Reinhart, Rogoff and Savastano. In particular, it compiles a comprehensive cross-country database on public debt in emerging market economies, and then applies a number of different approaches to assess sustainability and analyze past instances in which countries have undertaken significant public debt reductions. Innovative aspects of the analysis include an investigation of how fiscal policy in emerging market economies responds to increases in public debt and the implications of the greater inherent volatility of emerging market economies for the sustainability of their public debt.

As already discussed, compiling a data set is a major challenge for any study of public debt in emerging market economies. The availability and coverage of public debt data vary considerably between countries and there is no single source from which the data can be obtained. For the purposes of this chapter, two new data sets were constructed. They both focus on gross public sector debt, rather than net debt (*i.e.*, where public sector assets are netted out) or the net present value of the debt, because of data limitations. The first dataset contains a broad measure of public debt for the period 1990-2002 and the second a narrower definition of public debt, but over a longer time period (1970-2002). The reasons for creating two separate datasets, and the strengths and weaknesses of each, are discussed in Box 1.

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[2] Economic theory provides little practical guidance on the optimum level of public debt as it is dependent on the specification of the model (see Aiyagari and McGrathan, 1998).

1. Public debt and fiscal policy in emerging market economies

Public sector debt in emerging market economies has risen quite sharply since the mid-Nineties, and currently averages about 70 per cent of GDP (Figure 3.1).[3] This increase in debt has more than reversed the decline that took place in the first half of the Nineties, so that despite the Brady debt restructuring initiative and large-scale privatization programs in many countries, public debt in emerging markets is higher than it was at the beginning of the Nineties. This is not to say there have not been success stories – Bulgaria, for example, has reduced its public debt ratio from close to 160 per cent of GDP in the early Nineties to less than 60 per cent of GDP in 2002 – but many other countries have experienced very large increases in their debt ratios. In Argentina, public debt has risen from 30 per cent of GDP in the early Nineties to 150 per cent of GDP at end-2002, while in Lebanon it has increased from 50 per cent of GDP to close to 180 per cent of GDP over the same period.

The increase in public debt in emerging market economies in recent years has been concentrated in Latin America and Asia, with the latter seeing the most notable rise owing to the impact of the financial crisis in the region in the late Nineties. In contrast, debt ratios in the transition countries in Europe have fallen sharply as a number of these economies have implemented significant economic and fiscal reforms as they move toward accession to the European Union. In the Middle East and Africa, debt has remained broadly unchanged, but at uncomfortably high levels. The rise in public debt has been accounted for by increased issuance of domestic debt, spurred by domestic financial liberalization, the decline in inflation (particularly in Latin America), and bank restructuring debt.[4] In contrast, the share of external public debt has declined, and now accounts for about one-half of the total, compared to about two-thirds at the beginning of the Nineties.

The increase in public debt in emerging market economies stands in contrast to developments among the industrial countries where debt ratios have generally declined in recent years (with the notable exception of Japan) (Figure 2). Strikingly, after being well below industrial country levels during the Nineties, the average public debt ratio in emerging market economies is now higher than the average ratio in industrial countries (and much higher as a percent of government revenues). It is also noticeable that despite the decline in the share of external debt in total public debt to about 50 per cent in emerging market economies, it still remains well above the 25 per cent share in industrial countries. The difference in debt denominated in, or indexed to, foreign currency is even larger. Based on a limited sample of

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[3] Emerging market economies are here defined as those that were in the EMBI global index at the beginning of 2002 plus Costa Rica, Indonesia, India, Israel, and Jordan. Data are for nonfinancial public sector debt (external and domestic) where available, or the broadest definition of public sector that is otherwise available. Average figures are unweighted.

[4] Reinhart, Rogoff and Savastano (2003) similarly note these trends, but across a much smaller subset of countries.

emerging market economies, the foreign currency component is about 60 per cent of total debt because some domestic government debt is linked to foreign currencies.

What have been the main factors behind the increase in public debt in emerging markets since the mid-Nineties? The rise appears to be largely accounted for by interest and exchange rate movements and the recognition of off-balance-sheet and contingent liabilities. In a number of countries, the costs of recapitalizing banking systems have been particularly high.[5] Growth, on the other hand, has acted to reduce the public debt ratio. The primary fiscal balance (revenues less noninterest expenditures) has not itself added to the debt stock during this period, but it has not acted in any significant way to offset the increase in debt that has been caused by other factors. Indeed, primary fiscal balances have weakened somewhat since the mid-Nineties in all regions except the Middle East and Africa at a time when a strong fiscal effort was needed.

The increase in public debt to high levels in many emerging market economies in recent years has once again raised concerns about debt sustainability and whether there could be a repeat of the Eighties debt crisis. The long history of debt crises in many emerging market economies suggests that such concerns are not unfounded. Indeed, the fact that some emerging market economies have a long history of defaulting on their sovereign debt raises the question of why international investors continue to lend to these countries. Evidence, however, suggests that investors may not have lost by investing in these economies, although the *ex post* risk premia earned on their investment has been small. For example, Klingen, Weder and Zettelmeyer (2003) find that during 1970-2002 the rate of return on lending to emerging markets was the same as the return on U.S. government bonds. Over a more recent sample, the *ex post* risk premium was found to be small, but positive. Casual observation of sovereign debt default episodes in emerging markets over the past 30 years indicates that while the level of public debt at the time of a default has varied substantially, in many cases it has been quite low. In 55 per cent of the defaults recorded, public debt was below 60 per cent of GDP – the benchmark established for European Union members in the Maastricht treaty – in the year before the default and in 35 per cent of the case, the default actually occurred at a debt ratio of less than 40 per cent of GDP.[6] Indeed, the median public debt-to-GDP ratio in the year before a default was about 50 per cent of GDP. Governments in emerging markets have also defaulted on their domestic debt through high inflation,

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[5] Burnside, Eichenbaum, and Rebelo (2001) model the impact of contingent financial sector liabilities in the context of the Asian financial crisis.

[6] Looking at external debt at the time of sovereign debt default over the same period, Reinhart, Rogoff, and Savastano (2003) find that external debt was less than 60 per cent of GDP in 53 per cent of cases, but less than 40 per cent of GDP in only 13 per cent of cases. For the calculations reported here, the default data are taken from Standard & Poor's (2002b) and refer to default events on both external and domestic government debt. Default episodes were matched with available data on total public debt to generate the 38 defaults that underlie the chart. Periods of severe fiscal stress that do not result in default are not captured.

particularly in the Eighties and early Nineties when several of these economies had triple-digit annual inflation rates (and a few experienced hyperinflation).[7]

Not all emerging market economies, however, have experienced debt crises or very high inflation rates, indicating that it is difficult to make generalizations about these economies as a group. Indeed, a number of emerging market economies – such as India and Malaysia – have managed to maintain relatively high public debt for a long period without a default. A comparison between emerging market country defaulters (since 1998) and nondefaulters points to a number of noticeable differences between the two groups.[8] The countries that have defaulted have, on average, a higher ratio of public debt to GDP, a higher debt-to-revenue ratio, a higher proportion of external debt in total public debt and a lower ratio of broad money to GDP than those that did not default.[9] Indeed, in a number of cases it bears noting that debt ratios prior to the crisis were held down by overvalued exchange rates, given the importance of foreign currency-denominated debt in such cases.

The default experience of many emerging market economies stands in stark contrast to that of industrial countries, where there has been no explicit public debt default since World War II (although inflation in many industrial countries has eroded the real value of debt, particularly during the Seventies).

These differences in default history has led to the view that because of the characteristics of emerging market economies – including their inherent volatility, weaker institutions and poor credit history – the level of public debt that they can sustain is much lower than for industrial countries (see Reinhart, Rogoff and Savastano, 2003, and IMF, 2002).

Certainly, there are a number of features of the fiscal structure in emerging market economies that have an important bearing on the level of public debt that they can sustain. These include the following.

- *Revenue ratios in emerging market economies are low*. On average, the revenue-to-GDP ratio is 27 per cent of GDP, compared with 44 per cent of GDP in industrial countries. There are, however, considerable differences among emerging market economies, with, for example, many of the transition economies and Israel having ratios on par with industrial countries. Effective tax rates in emerging market economies are generally much lower than in industrial countries.[10] The difference is particularly striking for direct tax rates, where

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7 See the May 2001 *World Economic Outlook*.

8 Hemming, Kell, and Schimmelpfennig (2003) provide a detailed analysis of the role of fiscal policy in 11 recent crisis episodes in emerging market economies.

9 There may of course be other differences between the defaulters and non-defaulters. In particular, differences in the maturity structure of the debt may also have played a role. Data limitations, however, precluded examining this issue in this chapter.

10 Estimates of effective direct and indirect tax rates were computed for a subset of industrial and emerging market economies for which data were available. Data were taken from the United Nations *National Accounts Statistics* and the IMF's *Government Finance Statistics*, and the calculations use a simplified

(continues)

industrial countries generally have effective direct tax rates of 30 per cent or more and emerging markets outside eastern Europe, often only about 10 per cent. This low effective tax rate is the result of inefficient tax systems, significant tax exemptions and a large informal sector. The difference in effective indirect tax rates between industrial and emerging market economies is also noticeable.

- *Revenues are volatile in emerging market economies*. The volatility of revenues – measured by the coefficient of variation – in emerging market economies is generally much higher than in industrial countries, although there are exceptions. This is partly due to the greater underlying volatility of the economy; income, consumption and the terms of trade (which are often driven by the prices of a few commodities) are more volatile in emerging markets (see Kose, Prasad and Terrones, 2003). There is also a considerable difference in the volatility of effective tax rates (measured by the coefficient of variation).[11]
- *Interest costs account for a high proportion of government expenditure in emerging market economies and are volatile*. At 5 per cent of GDP, interest expenditures are almost twice as high in emerging market economies as in industrial countries and account for an average of about 17 per cent of expenditures (compared with 10 per cent in industrial countries). Interest expenditures are also more volatile in emerging markets because of the structure of public debt. With a large proportion of debt either external or denominated in foreign currency and revenues in domestic currency, high exchange rate volatility can result in large spikes in interest (and principal) payments relative to government income. Further, domestic debt is often of a short maturity, so interest costs are more sensitive to changes in the domestic interest rate environment.

These differences in the budget and public debt structures between emerging and industrial countries are striking and, as will be discussed in the next section, they have important implications for debt sustainability.

2. Assessing the sustainability of public debt in emerging market economies

Before proceeding, it is first necessary to define the related concepts of government solvency and public debt sustainability. A government is said to be

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version of the methodology proposed by Mendoza, Razin, and Tesar (1994). The length of the sample varied across countries depending on data availability. The effective direct tax rate was calculated as the ratio of total tax and nontax revenue net of domestic taxes on goods and services divided by the sum of compensation to employees and total operating surplus. The effective indirect tax rate was calculated as the ratio of all domestic taxes on goods and services divided by private consumption.

[11] The impact of commodity prices and commodity exports on government revenues is important even for those emerging market economies that have diversified their exports away from primary commodities. In Mexico, for example, oil exports are less than 15 per cent of total exports, but oil-related revenues still account for about one-third of public sector revenue. Regression results reported in Appendix 3.1 confirm the importance of commodity price developments for the primary budget balance in emerging market economies.

solvent if it is expected to be able to generate sufficient future primary budget surpluses to be able to repay its outstanding debt (in more technical terms, the present discounted value of future primary fiscal surpluses must be at least equal to the value of the existing stock of public debt).[12] This criterion, however, is not very practical or demanding because, for example, it would permit a government to run large primary deficits for a period of time if it could commit to run primary surpluses of a sufficient size thereafter and so satisfy the solvency condition. In reality, a government cannot commit to such action – running large primary surpluses for a long period of time would be costly and politically very difficult.

So solvency needs to be viewed in relation to a fiscal adjustment path that is both economically and politically feasible, and a given debt level is usually thought of as being sustainable if it implies that the government's budget constraint (in present value terms) is satisfied without an unrealistically large future correction in the primary balance (see IMF, 2002). Liquidity conditions are also important. Even if a government satisfies its present value budget constraint, it may not have sufficient assets and financing available to meet or roll over its maturing liabilities. Unfortunately, there is no simple rule for determining whether, in practice, a government's debt is sustainable or not.[13] This section therefore applies a number of different approaches that have been developed in the economics literature to look at the issue of public debt sustainability in emerging market economies and how the situation compares with industrial countries. The aim of the analysis is to look at trends across a broad range of countries, rather than to focus on the situation in any one country.

It should be noted up front that the following analysis does not take account of the risks that governments face from contingent and other off-balance-sheet liabilities. This is because of the difficulties in compiling cross-country data on such liabilities. The recent experience in many countries, however, has shown that the recognition of contingent or implicit liabilities – particularly those associated with the recapitalization of financial sectors – can add significantly to public debt, and in some cases push a situation that had previously appeared to be sustainable into one that is clearly not.

3. A simple approach to public debt sustainability

Methods for assessing public debt sustainability usually start from the basic accounting identity that links public sector revenues and expenditures to the change in the debt stock. One commonly used approach is to view fiscal policy as sustainable if it delivers a ratio of public debt to GDP that is stable, and then to calculate the primary budget balance that would achieve that (known as the

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[12] Appendix 3.1 demonstrates why the government's primary fiscal balance, rather than the overall fiscal balance, is the key for the analysis of public debt sustainability.

[13] See Chalk and Hemming (2000) for a survey of methods for assessing fiscal sustainability.

"debt-stabilizing primary balance").[14] If the actual primary balance is less than the debt-stabilizing balance, current fiscal policy implies an increasing ratio of public debt to GDP, and is therefore viewed as unsustainable. The difference between the actual and debt-stabilizing primary balance indicates the degree of fiscal adjustment that is needed to achieve a constant debt-to-GDP ratio. A judgment can then be made as to whether such an adjustment is attainable in the political and economic environment of the country concerned.

Over the past few years, only a small number of emerging market economies (mainly in Asia) appear to have been running primary budget surpluses consistent with what is required to stabilize or reduce the ratio of public debt to GDP.[15] For others – particularly countries in Latin America – there has been a significant difference between the actual and debt-stabilizing primary balance. Of course, a number of emerging market economies have recently made considerable efforts to increase their primary fiscal surpluses and such actions, if sustained, could address such sustainability concerns. Further, were growth to be stronger or real interest rates lower than in the past, a smaller primary surplus would be needed to stabilize the debt ratio. Among the industrial countries, only Japan has had a large gap between its actual and debt-stabilizing primary balance in recent years.

While these types of indicators of debt sustainability are useful because they are quite simple to construct and have a straightforward interpretation, their drawback is that they are based on an arbitrary definition of sustainability (*i.e.*, stabilize the debt-to-GDP ratio). Incurring temporarily high deficits and debt levels, however, may be appropriate in some circumstances, and it is certainly unlikely that a country should try and maintain a stable debt-to-GDP ratio at all times. Further, it may be of little practical policy use to know what is needed to stabilize the debt ratio when it is already at a high level and leaves a country vulnerable to shocks, such as a sudden stop in capital flows.

4. How does fiscal policy respond to public debt accumulation?

A more flexible approach to assessing debt sustainability is to look at it within the context of the broader objectives and constraints of the fiscal policy decision-making process. One way to do this is to look at the relationship between

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[14] See Buiter (1985), Blanchard (1990), and Blanchard and others (1990). This method is based on long-run, perfect foresight considerations that transform the government's budget constraint into an equation that maps the long-run primary fiscal balance as a share of GDP into a "sustainable" debt-to-GDP ratio that remains constant over time. The debt stabilizing primary balance depends on the debt-to-GDP ratio, the real growth rate, and the real interest rate on government debt. The real interest rate on debt is in practice difficult to measure accurately, and requires, among other factors, a breakdown of debt and interest payments into local and foreign currency that is not always available. Here, an emerging market country's real interest rate is taken as the U.S. long-term real interest rate plus its average EMBI spread. For industrial countries, the real 10-year bond yield is used.

[15] Based on the average primary balance and ratio of public debt to GDP for 2000-2002, the average real interest rate for 1998-2002, and the average real growth rate for 1990-2002 (1997-2002 for transition economies).

fiscal policy instruments (the variables deemed to reflect the actions of policymakers) and the objectives of fiscal policy (such as stabilizing output fluctuations and maintaining debt sustainability). Such "reaction functions" or "policy rules" are well established in the analysis of monetary policy, but they are much less developed in studies of fiscal policy, and to date have not been applied to emerging market economies.[16]

Fiscal policy reaction functions were separately estimated for industrial and emerging market economies, with the primary fiscal balance being considered the key operating target of the fiscal authorities. The primary fiscal balance is assumed to respond to changes in public debt, but it is also affected by temporary factors such as the level of economic activity.[17] Within this framework, the connection between current policy actions and long-run debt sustainability – the key issue of interest here – lies in the fact that a positive response of the primary balance to an increase in public debt generally implies the consistency of current fiscal policy with long-run solvency (see Bohn, 1998, for a formal demonstration, and Appendix 3.1). As discussed earlier, however, long-run solvency (satisfying the present-value budget constraint) is a relatively undemanding criterion as it only requires a commitment to adjust policy in the (possibly distant) future.

Two conclusions follow from examining the link between the adjusted primary balance (*i.e.*, after the impact of temporary factors has been accounted for) and public debt.[18] First, emerging market economies as a group exhibit a lower average adjusted primary balance than industrial countries at any level of public debt. Second, the response of the primary surplus weakens as the debt ratio rises in emerging market economies, and this response stops altogether when debt exceeds 50 per cent of GDP. This suggests that – on average – the conduct of fiscal policy in emerging market economies is not consistent with ensuring sustainability once public debt exceeds a threshold of 50 per cent of GDP. In contrast, industrial countries respond strongly to rising debt when debt is at a high level. Indeed, when debt is above 80 per cent of GDP, the estimated adjustment in the primary surplus is almost three times as large as that at lower debt levels. These estimates of course are for a large sample of emerging and industrial countries and the reported results are an average for the sample. Therefore, this behavior is not true for every country in either the emerging market or industrial country group; some emerging market economies have acted quite strongly to maintain a sustainable debt position.

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[16] Such fiscal policy studies for industrial countries include Bohn (1998) for the United States; Mélitz (1997) for OECD countries; Debrun and Wyplosz (1999) for euro area countries; and Gali and Perotti (2003) for European countries. Favero (2002) makes joint estimates of monetary and fiscal policy rules.

[17] For emerging market economies, four temporary factors that affect the primary balance were considered (all of which were found to significantly affect the primary surplus in the estimated fiscal policy reaction function): the business cycle, inflation, commodity prices, and debt restructuring or default. For industrial economies, the temporary factors considered were limited to the business cycle and inflation. Appendix 3.1 contains details of the sample selection and econometric methodology used in this section.

[18] The figures and econometric results discussed in this section refer to the association between the primary surplus adjusted for the influence of temporary factors (as a percent of GDP) and the ratio of public debt to GDP observed at the end of the preceding year.

The analysis also indicates clear differences between emerging market and industrial countries in terms of the cyclicality of fiscal policy. While a 1 per centage point improvement in the output gap is estimated to result in an average improvement in the primary balance of only 0.04 per centage points of GDP in Latin America and 0.23 per centage points of GDP in non-Latin American emerging markets, it leads to a 0.87 per centage points of GDP improvement in industrial countries.[19] These differences are primarily driven by expenditures, which, as a per cent of GDP, are unreactive to cyclical fluctuations in emerging markets (in Latin American countries, expenditures actually appear to be slightly procyclical). In cyclical upswings, outlays expand at the same pace as economic activity (or faster in Latin America), but when economic growth weakens, revenues decline and lending conditions tighten, and the government has to contract its outlays.[20] This behavior contrasts to that in industrial countries, where expenditures increase by less than economic growth in an upturn and fall by less than activity in a downturn, thus exerting a stabilizing influence on the economy. This behavior likely reflects the significant automatic stabilizers at work through the extensive social security systems in industrial countries, giving to government expenditure an insurance role against macroeconomic volatility (see Rodrik, 1998, and Fatàs and Mihov, 2003). Interestingly, better institutional quality is found to be associated with a more countercyclical policy in emerging market economies, suggesting that the ability to control expenditures (and raise revenues) is less of a problem in countries with better institutions (see Appendix 3.1).

These results are suggestive of a link between debt sustainability and the short-term conduct of fiscal policy. Because their behavior indicates a strong commitment to debt sustainability, industrial countries can run countercyclical fiscal policies without lenders becoming concerned about sustainability issues. In many emerging market economies, however, the ability to adjust fiscal policy to maintain debt sustainability is often in doubt. Lenders therefore quickly become concerned when deficits widen and the tight resource constraint forces governments to cut expenditures during a downturn, further adding to the economic weakness.

5. Do governments in emerging market economies overborrow?

A third approach to assessing public debt sustainability is to see if a government is "overborrowing" in the sense of whether its debt stock exceeds the present discounted value of its expected future primary surpluses. To operationalize such a calculation, expected future primary balances are here approximated by the

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[19] A number of other studies have found evidence of procyclical fiscal policies. For example, Talvi and Végh (2000) argue that fiscal policy is procyclical in most countries outside the G7, while the April 2002 *World Economic Outlook* found that fiscal policy was procyclical in a number of Latin American countries.

[20] Procyclical fiscal policy in Latin America has implications for social spending and the poor. Braun and Di Grescia (2003) find that social spending in the region is procylical (although less so than total government spending), and that in crisis situations governments often reduce social spending, which adversely affects the poor.

average primary balance achieved during the sample period, on the assumption that a government's fiscal policy track record is the best guide to what it can be expected to achieve in the future. A benchmark level of public debt (as a percent of GDP) is then calculated and compared with actual debt. The extent of over- or underborrowing is measured by the ratio of actual public debt to the benchmark level of debt, with a ratio greater than 1 suggesting that a government is overborrowing relative to what is justified by its fiscal policy track record.[21] The discount rate – the difference between the real interest rate and real output growth – is proxied by the difference between the real LIBOR interest rate plus a country-specific spread and the average real GDP growth.[22]

The benchmark debt-to-GDP ratio was calculated for 50 countries (14 industrial, 21 emerging market, and 15 developing) using data for the 1985-2002 period.[23] The median value of the ratio for industrial countries is estimated at 75 per cent of GDP, almost three times higher than that for emerging markets. Comparing the actual and benchmark public debt levels suggests that many emerging market economies have indeed been overborrowing as the typical (median) emerging market economy has a ratio of public debt to GDP that is 2½ times larger than its fiscal policy track record would suggest is warranted.[24] While this is lower than for the "other developing countries" group, it compares unfavorably with the typical industrial country, where the ratio is less than 1. There are differences, however, among emerging market regions. Asian countries have a similar ratio to industrial countries, while countries in Latin America and other regions have a ratio of 2½ and 6, respectively, suggesting significant overborrowing. Further, the typical emerging market economy with a default history has an overborrowing ratio of 3½, compared with a ratio of less than 1 for a nondefaulter. These results convey the same message as before: many emerging market economies need to generate larger primary surpluses than they have done in the past to be able to sustain their public debt levels.

The fact that many countries overborrow raises the question of whether there are any common features that help to explain this behavior. An econometric analysis

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[21] This overborrowing ratio is closely related to the public debt sustainability measure discussed earlier, but it does not provide a quantitative estimate of the primary balance adjustment needed to stabilize the debt-to-GDP ratio. For a country that has undertaken significant fiscal reforms in recent years and is now achieving a higher sustained primary surplus than it has historically, the assumption that its past track record provides a good guide to future primary surpluses may of course not be valid.

[22] If future growth rates are expected to be higher, or real interest rates lower, than their historic average, this will affect the estimated overborrowing ratio. Because data on spreads are not available for the whole sample period or for all countries, the Institutional Investor rating – which is highly correlated with spreads – is used to derive a proxy (see Appendix 3.1).

[23] Some countries were excluded because either the average primary balance was negative or the discount factor was negative over the sample period – in both cases, the debt-to-GDP ratio is nonstationary (although in different directions).

[24] Because of a number of outliers, the mean overborrowing ratio for emerging market economies at 16 is much higher than the median.

suggests that the following policy variables are important determinants of overborrowing.[25]

- *Government revenues*. Governments with low revenues will often have difficulty meeting their desired expenditures from revenues, increasing the pressure on them to borrow. The econometric results suggest that an increase in emerging market economies' revenue ratio to the industrial country average would, other things remaining unchanged, reduce the overborrowing ratio by about 35 per cent.
- *Trade openness*. Openness has a positive effect on economic growth, which helps mitigate the existing debt burden, while more open economies are able to generate the trade surpluses needed to service foreign debt and are less likely to experience difficulties with external public debt.[26] The estimates suggest that reducing foreign exchange rate restrictions for current transactions – the proxy used here for trade openness – to industrial country levels would, others thing remaining unchanged, reduce the overborrowing ratio in emerging markets by 60 per cent.[27]
- *The quality of domestic institutions and the nature of the political system*. A number of studies have found a relationship between the quality of fiscal institutions – the rules and regulations by which budgets are constructed and implemented – and fiscal outcomes.[28] Further, good institutions are associated with stronger growth, which boosts revenues and eases the debt-servicing burden.[29] On the other hand, political systems that deliver weak (minority or coalition) governments often delay fiscal adjustment and accumulate public debt based on short-term needs.[30] Simple correlations suggest that good institutions are associated with less overborrowing. In the econometric analysis, however, only the protection of property rights was found to be a significant explanatory variable, with the estimated coefficient suggesting that were the protection of property rights in emerging market economies to be raised to the level of industrial countries, the overborrowing ratio would be reduced by about 50 per cent.

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[25] Other factors not directly under the control of policymakers – macroeconomic volatility and relative income – were also included in the regressions, as was an industrial country dummy variable (see Appendix 3.1 for details).

[26] On openness and economic growth, see the survey by Berg and Krueger (2003), and on openness and external debt difficulties, see Sachs (1985).

[27] The index of exchange rate restrictions for current transactions is used here because it is available for the countries during the full sample period of the analysis. The reported results, however, remain broadly unchanged when alternative measures of trade openness – such as that developed by Sachs and Warner (1995) – are used.

[28] See, for example, von Hagen (1992) and von Hagen and Harden (1995). Alesina and others (1998) find the nature of the budget process strongly influences fiscal outcomes in Latin America.

[29] See the April 2003 *World Economic Outlook* for an analysis of the relationship between growth and institutions.

[30] Alesina, Perotti, and Tavares (1998) find that coalition governments often have a harder time consolidating fiscal policy than do single party governments.

6. Uncertainty and public debt sustainability

One of the problems with the three approaches to debt sustainability that have been discussed so far in this chapter is that they do not take account of the uncertainties that face governments in emerging market economies.[31] As outlined earlier, government revenues in emerging market economies are more variable than in industrial economies, and a government could find itself in a situation where it is faced with low revenues for an extended period of time because of, say, a collapse in the price of the country's primary commodity export. Further, emerging market governments also face considerable uncertainty from interest and exchange rate movements. There have recently been a number of attempts to incorporate such uncertainties into the analysis of public debt sustainability. One approach has been to apply the Value-at-Risk (VaR) methodology that is commonly used in the assessment of financial institution risk to look at the risks faced by the government. A different approach has been to use economic models that incorporate uncertainty to derive estimates of sustainable debt ratios (see Mendoza and Oviedo, 2003).

One way to look at the impact of uncertainty on public debt sustainability is to consider the case of a government that is credibly committed to servicing its debts in all circumstances. Such a government would need to take into account the fact that its future revenues – and consequently primary balance outcomes – are uncertain, and that it could be faced with the possibility of a long period of low revenues in the future. To be credibly committed to servicing its debt in all circumstances, the government cannot borrow more than the debt that it would be able to sustain with the primary balances that would occur with these low revenue outcomes. This is not to say that the government could not borrow at all: if actual debt were below the maximum sustainable debt level, the government would be able to borrow until the threshold was reached, at which point it would need to reduce expenditures to maintain the credibility of its commitment.

The requirement that a government should only borrow up to the debt level that it could sustain in the face of a long period of low revenues may seem a stringent one. Emerging markets, however, have faced long periods of low revenue realizations in the past when the price of their main commodity export has fallen. For example, governments in oil-exporting countries faced this situation after the collapse of oil prices in the Eighties.[32] In such circumstances, the government is suddenly confronted with a debt stock that it had believed was sustainable when revenues related to commodity exports were high, but is not sustainable with the new reality of lower revenues from commodity exports.

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[31] See Gavin and others (1996) for an extensive discussion of the effects of volatility on fiscal policies in Latin America.

[32] Indeed, slumps in commodity prices – particularly oil – are generally quite long lasting. For example, Cashin, McDermott, and Scott (2002) find that slumps in commodity prices typically last for about three and a half years, with slumps in oil prices on average lasting over four years.

To implement these ideas, it is first necessary to determine what constitutes a low revenue outcome, and in such circumstances, what fiscal adjustment the government could make. Here, a low revenue outcome is characterized by a revenue-to-GDP ratio that is two standard deviations below the average level, and the range of primary expenditure reductions that emerging markets have made in the past is taken as an indication of the fiscal adjustment that a government could potentially achieve. Using these assumptions allows the derivation of the maximum sustainable public debt ratios for two "typical" emerging market economies and an industrial economy for different assumptions about the possible variability of their future revenues (measured by the coefficient of variation) and their commitment to adjust expenditures if a low revenue outcome occurs. Both emerging market economies are assumed to have revenue and primary expenditure ratios of 20 per cent of GDP on average – broadly the averages seen in non-European emerging markets – while one (a "lower risk" country – Case A) has a real interest rate on public debt that is 5 percentage points higher than its growth rate, and the other (a "higher" risk country – Case B) has a real interest rate that exceeds its growth rate by 10 percentage points.[33] The industrial country (Case C) has revenue and primary expenditure ratios of 40 per cent of GDP on average, and a real interest rate that is 2.5 per centage points higher than its growth rate.

Looking at the first emerging market country example (Case A), the more stable its revenues – *i.e.*, the smaller the coefficient of variation of the revenue ratio – the higher is the maximum ratio of sustainable public debt to GDP for any given level of expenditure adjustment that it can commit to. The rationale for this is that when the government is faced with a low revenue outcome, the actual revenue-to-GDP ratio will be higher, and consequently the primary surplus larger, than if the variability of revenues is greater. For example, if this country has a coefficient of variation on its revenue ratio of 5 per cent and can commit to adjust primary expenditures by 5 per cent of GDP, then its maximum sustainable public debt ratio is 60 per cent of GDP. For the "high risk" emerging market country (Case B) with similar revenue and expenditure characteristics, the maximum sustainable debt ratio is just 30 per cent of GDP. But, if the coefficient of variation for this country is 7 per cent, then the maximum debt level is only 22 per cent of GDP. For the industrial country (Case C), the combination of a higher average revenue ratio, low revenue volatility and a smaller difference between the real interest rate and the real growth rate means its maximum sustainable debt ratio is higher than for the emerging market economies even if it can only commit to a modest cut in expenditures. For example, with a commitment to cut primary expenditures by 3 per cent of GDP and revenue volatility of 3 per cent, the maximum sustainable debt ratio for the industrial country is about 85 per cent of GDP.

These calculations illustrate the link between revenue generation capacity, revenue variability and primary expenditure adjustment – all of which affect the

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[33] While these assumed differences between the real interest rate and the real growth rate may seem high, they are intended to capture a situation where a country has been hit by a shock and spreads have increased sharply and growth weakened.

primary balance – and debt sustainability. If a country has low and variable government revenues, it will be able to sustain a lower public debt level than a country with a higher and more stable revenue base. This means that the sustainable debt level may vary – potentially by a considerable amount – between countries (it will also depend on real interest rates and growth). The implication is that differences in sustainable debt levels can be expected not only between industrial and emerging market economies, but also among emerging market economies themselves. For example, India – which has relatively stable government revenues – could be expected to sustain a higher debt level than Venezuela, where revenues are much more variable. (Of course, there may also be other reasons why India could sustain a higher public debt ratio, including the maturity profile and interest costs of the debt and the size of the domestic bond market.) Indeed, countries with higher average revenue ratios and lower revenue variability do in general have higher public debt ratios. Because revenue variability has important implications for debt sustainability, proposals have been made to create debt instruments that could help cushion emerging markets from changing economic conditions, for example, growth-indexed bonds.

7. Can governments in emerging markets economies sustain their Current debt levels?

A common theme running through the results presented in this section is that historically many emerging market economies have not generated large enough primary budget surpluses to ensure the sustainability of their public debt. This stands in sharp contrast to industrial countries. This inability to generate adequate primary surpluses is both a function of weak revenue bases (which generally have low yields and are volatile) and an inability to control expenditures during economic upswings (this appears to be particularly important in Latin America). These factors suggest that emerging market economies can generally sustain lower public debt ratios than industrial countries. Although this sustainable debt level will certainly vary – and potentially by a considerable amount – the calculations suggest that for the typical emerging market economy it is quite low. Of course, industrial countries face considerable pressures from population aging going forward, so this analysis should not be taken as suggesting that public debt levels in these countries are currently at a comfortable level.

8. How can high public debt levels be reduced?

If governments face high public debt levels, what can they do to reduce them? Governments have a number of potential policy options available to them to reduce their debt: (1) they can adjust fiscal policy and run primary budget surpluses sufficient to reduce the debt; (2) they can seek to grow or inflate their way out of their debt difficulties; (3) they can sell assets to retire debt; or (4) they can explicitly default on the debt.

While reducing the public debt ratio through strong economic growth would generally be a government's preferred option, this cannot be relied upon as growth is beyond the direct control of the government. Of course, the government can play an important role by creating an environment conducive to growth through the implementation of sound macroeconomic and structural policies (including by not accumulating excess debt that could adversely affect private sector activity).[34] The other options each have advantages and disadvantages. Reducing public debt by running primary budget surpluses, for example, maintains the fiscal credibility of the government, but is often difficult politically – particularly if high primary surpluses need to be maintained for any length of time – and may involve decisions that, at least in the short run, have a detrimental effect on activity.[35] An explicit default or high inflation provide ways of reducing debt without having to run larger primary surpluses, but they both entail costs. If it defaults, a government is likely to suffer a loss of reputation that could prevent or limit its future borrowing, and hence constrain its future fiscal policy options, while high inflation has significant negative effects on economic activity and welfare.[36] Finally, a policy of selling government assets is only likely to be successful in reducing debt if accompanied by responsible fiscal policy (so the proceeds are not simply spent), and the policy does not change the underlying net worth position of the government although it reduces debt.

To examine how large public sector debt reductions have occurred in practice, data for 79 industrial, emerging market, and other developing countries for the period 1970-2002 were used, and a sample of large public debt reductions was constructed as follows. Cases were identified where public debt was reduced over a three-year period, and then the top 15 per cent of these episodes (in terms of the size of the debt reduction, which in the sample corresponded to a drop in public debt of

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[34] A simple correlation between public debt and growth in emerging market economies since 1990 shows a clear negative relationship. More formally, Pattillo, Poirson, and Ricci (2002) find that external debt begins to have a negative effect on growth once it exceeds 35-40 per cent of GDP.

[35] Assessing the impact of fiscal consolidation on economic activity is not straightforward. While most evidence points to the conclusion that fiscal multipliers are positive – *i.e.*, that a fiscal consolidation will have a negative impact on growth in the short run – this appears not always to be the case (see Hemming, Kell, and Mahfouz, 2002). Recent studies in advanced countries have shown that if the fiscal consolidation is mainly achieved through a reduction in current spending it may be expansionary (see Alesina, Perotti, and Tavares, 1998). For emerging market economies where there is a public debt sustainability problem and the risk premia on interest rates are high, a credible fiscal consolidation could result in a large fall in interest rates, spurring private activity and more than offsetting the withdrawal of fiscal stimulus. Hemming and Ter-Minassian (2003) discuss the impact of fiscal tightening during crisis episodes.

[36] The costs of an explicit default and/or high inflation are difficult to measure. For an extensive discussion of reputation and sovereign debt, see Obstfeld and Rogoff (1996) and the references therein. A default affects a country's access to capital markets, its borrowing costs, and its trade relations with its debtors. Empirical evidence on the size of the costs of default, however, is mixed. For example, Lindert and Morton (1989) argue that investors pay little attention to the past repayment record of a borrowing government. Özler (1993) however, finds that countries with default histories faced higher commercial bank interest rates in the Seventies. In terms of costs through the trade channel, Rose (2002) finds that a sovereign debt default is associated with a decline in bilateral trade between a debtor and its creditors of about 8 per cent a year and this persists for about fifteen years. With regard to the costs of high inflation, Lucas (2003) estimates that the gains from eliminating an inflation rate of 200 per cent – a level observed in many Latin American countries during the Eighties – are in excess of 5 per cent of income in the long run.

at least 18 per cent of GDP) were chosen. Lastly, cases in which the debt stock at the end of the three-year period was still above the level three years prior to the event were eliminated. This selection process highlighted 26 debt reduction episodes in the emerging market economies in the sample.[37]

A large majority (19 out of 26) of these episodes were associated with a debt default. While it is not possible to identify the exact impact that the restructuring had on the outstanding debt, it appears to have generally been an important factor behind the decline in the debt ratio. The seven remaining episodes (which took place in five different countries) were then examined to understand the principal factors behind the debt reductions that have not involved a restructuring.[38] In these seven cases, the median decline in the public sector debt ratio was 34 per cent of GDP over the three-year period (Figure 3.14). Strong growth appears to have been a significant contributing factor to the decline in the debt ratio, with real GDP growth averaging 8.5 per cent a year. Fiscal consolidation played an important role as well, with a significant improvement in the primary balance beginning immediately before the debt began to fall. The fiscal consolidation was largely the result of expenditure restraint – with current expenditure being reduced and capital spending remaining constant – although the revenue ratio also increased somewhat. Moderate inflation of about 5 per cent also helped, while exchange rate appreciation acted to reduce outstanding external public debt.

This analysis suggests that while large debt reductions have often occurred in conjunction with debt defaults, there are cases where they have been brought about by a combination of strong economic growth and fiscal consolidation. Interestingly, in all five of the countries where debt was reduced without a restructuring, the public debt ratio is still below the level at the beginning of the identified debt reduction episode (although in the Asian countries, the ratio has again risen in recent years following the financial crisis in the region). The outcome is more mixed in the cases where debt reduction was associated with a default. While in 10 of these countries debt has remained below the level prevailing at the beginning of the debt reduction episode, in 5 cases the country has either defaulted again and/or debt is currently above the level at the beginning of the debt reduction episode. This suggests that default does not always provide a long-term solution to public debt problems and that, unless it is accompanied by complementary changes in fiscal and other economic policies, it will not be successful in fostering sustainably lower debt levels.

Whether it is achieved with or without a debt restructuring, a substantial and sustained reduction in public sector debt requires the implementation of sound economic and fiscal policies over a number of years. For example, Chile has implemented strong and sustained fiscal (and other economic) reforms since it defaulted on its external public debt in the Eighties, and the government has reduced

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[37] This exercise is roughly parallel to the analysis of major reductions in external debt in Reinhart, Rogoff, and Savastano (2003).

[38] These occurred in Hungary, Israel (twice), Korea, Malaysia (twice), and Thailand.

its debt from 54 per cent of GDP in 1990 to 21 per cent of GDP in 2002. Several elements have contributed to this successful adjustment, including expenditure restraint, improved revenue collections and state enterprise reform that transformed losses into significant profit transfers to the government. Privatization proceeds have also been used to reduce debt and real exchange rate appreciation has reduced external debt in relation to GDP. Chile did not impose specific rules for the fiscal balance, but other institutional factors played useful roles in maintaining fiscal discipline, including giving more power to the finance ministry than to other ministries or the legislature; prohibiting the central bank from extending credit to the government; and preventing lower levels of government from borrowing. Since 2001, the government has committed to an annual target – a surplus of 1 per cent of GDP – for the central government structural balance (adjusted for cyclical effects and copper price movements), thus allowing automatic stabilizers to work.

The benefits of these sustained policy actions are clear. The financial markets have confidence in Chile's fiscal policies and spreads on government debt are well below those of other governments in the region. Further, uninterrupted access to the capital markets has enabled the Chilean government to avoid the forced procyclical fiscal policies seen in other countries in the region, reinforcing confidence in its economic management.

A number of other countries have also made progress in reducing high levels of public debt. In Hungary, public debt has fallen from about 85 per cent of GDP in the mid-Nineties to less than 60 per cent now as a result of strong growth, a period of sustained primary budget surpluses (which, however, ended in 2002), and the proceeds from the sale of government assets. Bulgaria has reduced its public debt from about 160 per cent of GDP in the early Nineties to less than 60 per cent of GDP in 2002 as a result of debt restructuring, a fiscal consolidation program that has seen primary budget surpluses sustained since 1994, and high inflation (up to 1997). Lastly, in Mexico, public debt was reduced in the early Nineties as the country emerged from its Brady debt restructuring. Despite the Tequila crisis in 1995, which entailed a costly restructuring of the banking system, debt is currently about 50 per cent of GDP and the last of Mexico's Brady debt has recently been repaid.

9. Conclusions

High public debt is a cause for concern in many emerging market economies. At about 70 per cent of GDP, the average public debt ratio in emerging market economies now exceeds that in industrial countries. Not only does this high level of public debt raise the risk of a fiscal crisis in some countries, but it also imposes costs on the economy by keeping borrowing costs high, discouraging private investment and constraining the flexibility of fiscal policy. Lower public debt levels would likely enable governments in emerging markets to run a more countercyclical fiscal policy, with benefits for economic stability.

The analysis in this chapter suggests that, historically, many emerging market economies have not generated large enough primary budget surpluses to ensure the sustainability of their public debt. This stands in contrast to industrial countries. The inability to generate adequate primary surpluses appears to stem from the characteristics of the fiscal systems: governments in emerging market countries generally have weak revenue bases (with lower yields and higher volatility) and are less effective at controlling expenditures during economic upswings (this is particularly the case in Latin America).

While the sustainable level of public debt varies between countries – depending on the characteristics of each country – for the typical emerging market economy it is often quite low. For example, the analysis of overborrowing suggested that, based on past fiscal performance, the sustainable public debt level for a typical emerging market economy may only be about 25 per cent of GDP, while the estimates of the fiscal policy reaction functions indicated that emerging market economies as a group have failed in the past to respond in a manner consistent with ensuring fiscal solvency once public debt exceeds 50 per cent of GDP.[39] There are, however, regional differences, with Asian countries generally doing more to ensure debt sustainability than countries in other regions.

What can policymakers do to reduce public debt and cushion themselves against the risks that high debt presents? It is important to recognize that the past does not necessarily condition the future – policies and institutions do change. The example of Chile, in particular, shows that strong fiscal and structural policy reforms – sometimes in combination with an initial debt restructuring – can be effective in putting public debt on a firm and lasting downward path. To be successful, however, a broad and sustained package of reforms is needed that encompasses the following.

- *Tax and expenditure reforms*. Reforms to strengthen and broaden the tax base are needed so that governments have access to higher and less variable revenues. Effective tax rates in emerging market economies are generally low, suggesting that tax avoidance – through either legal or illegal means – and weak tax administration are serious issues that need to be addressed. The continued reliance on taxes and transfers related to commodity exports is a weakness of many current tax systems, and efforts are needed to broaden the tax base to reduce its variability. Better control of expenditures during economic upswings is also essential to ensure that periods of strong revenue growth result in higher primary surpluses rather than increased spending.
- *Steps to improve the credibility of fiscal policy*. Governments need to be able to demonstrate that their overall debt burden is manageable, and that it is likely to

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[39] These thresholds are not dissimilar from those found in recent studies on external debt crises in emerging markets. For example, IMF (2002) estimates a threshold of 40 per cent of GDP, Manasse, Roubini, and Schimmelpfennig (2003) estimate a threshold of 50 per cent of GDP, and Reinhart, Rogoff, and Savastano (2003) derive country-specific thresholds in the range of 15-20 per cent of GDP for countries that have repeatedly defaulted on their sovereign debt.

remain so under most circumstances. Building this credibility requires not only the implementation of effective fiscal reforms, but also a record of adhering to these reforms through upturns and downturns. The strengthening of fiscal institutions has a very important role to play in this regard. Fiscal rules – broadly defined as a permanent constraint on fiscal performance – in some cases may play a useful role in strengthening fiscal policy credibility if appropriately designed and obeyed. For example, the Fiscal Responsibility Law introduced in Brazil in 2000 – which established policy rules consisting of limits and targets for selected fiscal indicators for all levels of government, including debt ceilings and transparency requirements – appears to have helped strengthen the government's credibility in financial markets.[40] Poland has also introduced a constitutional limit on public debt of 60 per cent of GDP (including the risk-weighted stock of outstanding government guarantees) and corrective procedures that kick in when public debt exceeds 50 per cent of GDP.

- *Steps to reduce exposure to exchange rate and interest rate movements.* Given the structure of their public debt, many emerging market economies are exposed to considerable interest rate and foreign exchange risk. Steps are needed to reduce the reliance on domestically issued foreign currency and short-term debt. Policies to promote more open economies would help reduce the risks from external debt as exchange rate depreciations would then provide more of a boost to exports and government revenues to mitigate the impact on the budget of higher debt servicing costs. Recent proposals to create GDP-linked bonds could also provide some cushion during times of economic stress.
- *Structural reforms to boost growth prospects*. Historic experience suggests that it is difficult to bring public debt ratios down without robust economic growth. In this context, the implementation of a broad-based agenda of structural reforms is a crucial complement to fiscal consolidation efforts. As emphasized in the April 2003 *World Economic Outlook*, the strengthening of institutions could be expected to provide a significant boost to growth over the medium term. Addressing corporate and financial sector weaknesses will also be a key, while further steps to liberalize trade and promote long-term foreign investment will have lasting growth benefits.
- *Addressing the risks from contingent and implicit liabilities*. It is also important that governments act to minimize the risks they face from contingent and implicit liabilities. This applies not only to countries trying to reduce high debt levels, but also to those that currently have relatively low debt. The experience of many countries in recent years has shown that the recognition of such liabilities can significantly add to public debt and quickly raise questions about sustainability. The recapitalization of banking systems, in particular, has proved costly, while government guarantees on private sector projects are a further source of risk. Governments need to be fully aware of the contingent and implicit liabilities they

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[40] Kopits (2001) contains a detailed discussion of fiscal policy rules. For more detail on fiscal policy rules in Brazil, see Goldfajn and Guardia, forthcoming.

face – in this regard, improving fiscal transparency would help – and act to reduce them to the extent possible. Improving financial sector supervision is an essential step toward this goal.

More generally, the mechanisms for the restructuring of sovereign debt also need to be strengthened. Defaults on external public debt have been common among emerging market economies and certainly cannot be ruled out in the future. It is therefore important that mechanisms are in place to deal with such events in an orderly manner to minimize, to the extent possible, the costs and disruptions to all the involved parties. To this end, current efforts to promote the inclusion of collective action clauses in debt contracts and, more generally, to find ways to improve arrangements for sovereign debt restructuring within the existing legal framework are important.

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