

Macroeconomic Stability: The More the Better?

MACROECONOMIC POLICIES IMPROVED in a majority of developing countries in the 1990s, but the expected growth benefits failed to materialize, at least to the extent that many observers had forecast. In addition, a series of financial crises severely depressed growth and worsened poverty.

What is the relationship between these developments? This chapter argues that both slow growth and multiple crises were symptoms of deficiencies in the design and execution of the pro-growth reform strategies that were adopted in the 1990s with macroeconomic stability as their centerpiece.¹ Section 1 reviews how macroeconomic stability evolved during the 1990s. Section 2 evaluates this experience from the perspective of promoting economic growth, examining how a policy agenda that focused on macroeconomic stability turned out to be associated with a multitude of crises. Section 3 draws lessons, which essentially concern the depth and breadth of the macro reform agenda, the need for attention to macroeconomic vulnerabilities, and the importance of policies outside the macroeconomic sphere.

1. Macroeconomic Facts of the 1990s

How did macroeconomic stability evolve over the 1990s? Answering this question requires, first, a clarification of the meaning of macroeconomic insta-

bility and of how to measure it empirically. Conceptually, macroeconomic instability refers to phenomena that make the domestic macroeconomic environment less predictable, and it is of concern because unpredictability hampers resource allocation decisions, investment, and growth.² Macroeconomic instability can take the form of *volatility* of key macroeconomic variables or of *unsustainability* in their behavior (which predicts future volatility).

To examine the evolution of macroeconomic stability, we look at the behavior of macroeconomic outcome variables including the growth of real output, the rate of inflation, and the current account deficit. It focuses on the volatility of the growth rate and the levels of inflation and the current account deficit.³ Changes in the behavior of these endogenous variables can reflect changes in the macroeconomic policy environment as well as exogenous shocks. Thus to distinguish the roles of these two factors we look at the behavior of fiscal, monetary, and exchange rate policy variables as well as at real and financial exogenous shocks to developing countries.

Stability of Macroeconomic Outcomes

Developing countries have traditionally experienced much greater macroeconomic instability than industrial economies. This problem is widely perceived to have worsened,⁴ but in fact the volatility of developing countries' key macroeconomic aggregates declined in the 1990s.⁵ For example, the median

standard deviation of per capita gross domestic product (GDP) growth fell from 4 percent in the 1970s and 1980s to about 3 percent in the 1990s, although it remained significantly higher than the comparable figure for industrial economies (1.5 percent) (figure 4.1).^{6,7} The reduction in GDP volatility was widespread but far from universal: of the 77 developing countries for which complete information is available for 1960–2000, about a third (27 countries) experienced more volatile growth in the 1990s than in the 1980s. In turn, the volatility of private consumption growth also declined relative to the previous decade in low-income developing countries. In middle-income countries, however, consumption volatility remained virtually unchanged at the record highs of the 1980s.⁸

The reduction in the aggregate volatility of GDP growth concealed the increasing role played by extreme instability (figure 4.2). In the 1990s, large negative shocks accounted for close to one-fourth of total growth volatility, against 14 percent in the 1960s and 1970s and 18 percent in the 1980s.⁹ And the increasing incidence of growth crises affected not only countries whose growth volatility rose (such as Indonesia, Malaysia, and the Republic of

Korea) but also countries whose growth volatility declined (such as Madagascar, which suffered a large drop in GDP in 1991; Mexico; and Ecuador). There is evidence that this crisis-type volatility is significantly more adverse for growth than normal volatility (Hnatkovska and Loayza 2004).¹⁰

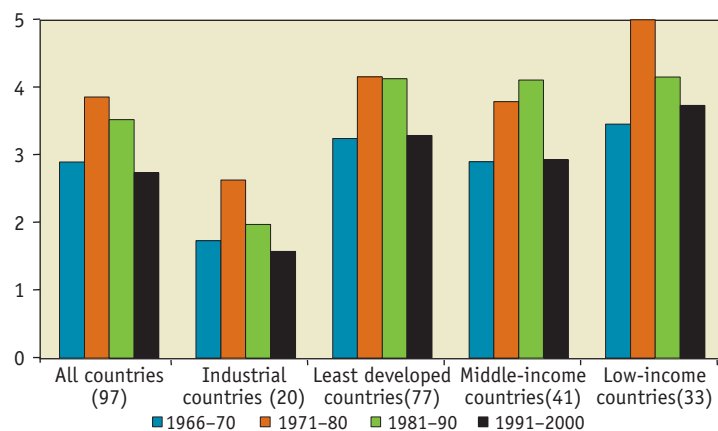
Inflation rates improved in the 1990s. Among middle-income countries the median annual inflation rate declined from a peak of 16 percent in 1990 to 6 percent in 2000. Among low-income countries, inflation peaked during 1994–95 in the wake of the devaluation of the CFA franc, and then declined (figure 4.3). The incidence of high inflation among developing countries declined sharply after peaking in 1991 (figure 4.4). But over the 1990s as a whole, the number of developing countries experiencing average inflation higher than 50 percent was no smaller than in the 1980s.

Other things being equal, reduced aggregate volatility and lower inflation probably improved the incomes of the poor. The inflation tax tends to fall disproportionately on poorer households, which

FIGURE 4.1

GDP Growth Volatility, 1966–2000

(percent, medians by country income group)

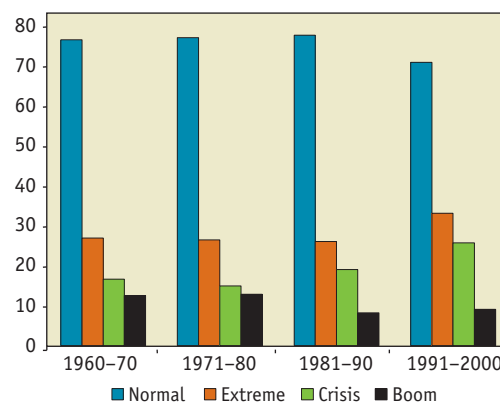


Sources: World Bank, *World Development Indicators*; Hnatkovska and Loayza 2004.

FIGURE 4.2

Structure of GDP Growth Volatility, 1961–2000

(percent, mean of 77 developing countries)



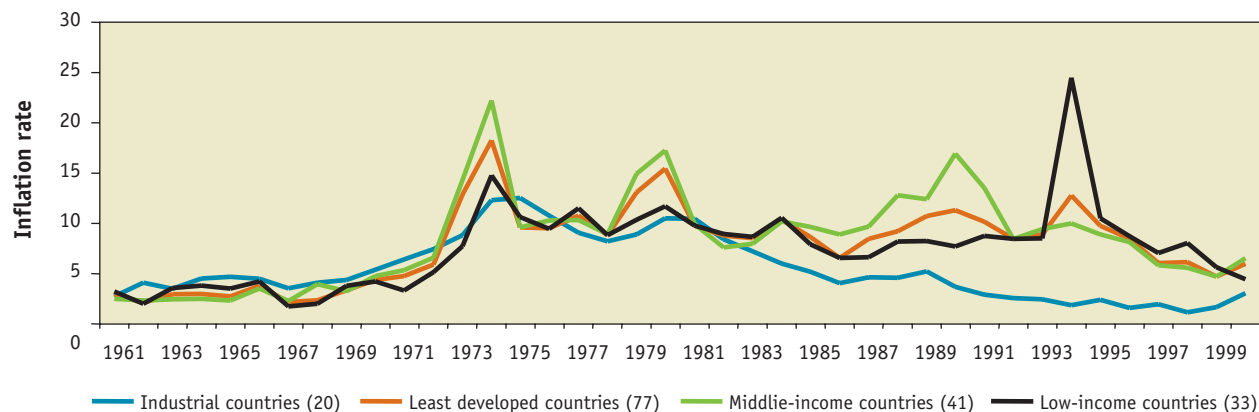
Source: Author's own elaboration using data from World Bank WDI and Hnatkovska and Loayza (2004).

Note: Extreme shocks are defined as those exceeding two standard deviations of output growth over the respective decade. Total volatility = Normal + Extreme; Extreme = Crisis + Boom.

FIGURE 4.3

Inflation Rates, 1991–99

(GDP deflator, medians by country income group)

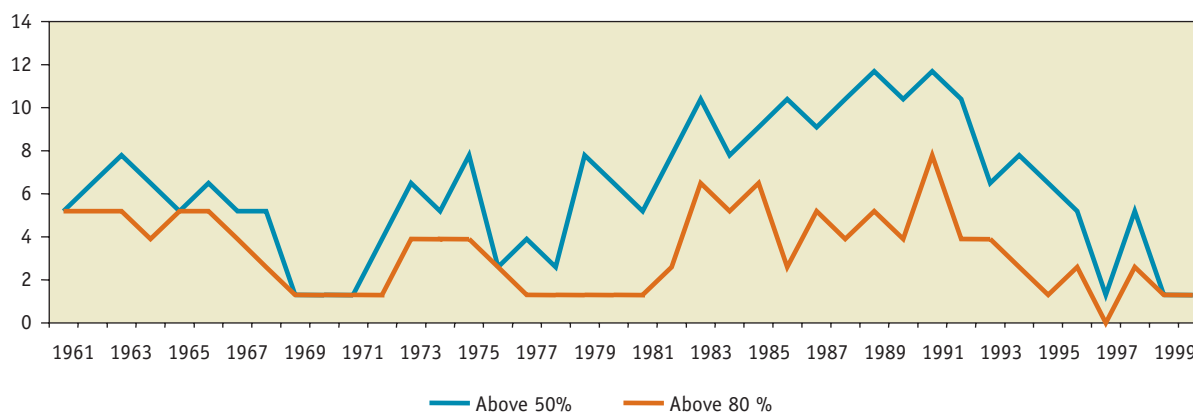


Source: World Bank, *World Development Indicators*.

FIGURE 4.4

High Inflation in Developing Countries, 1961–99

(relative frequency, percent)



Source: World Bank, *World Development Indicators*.

hold few or no financial assets to shelter them against rising prices, and whose wage earnings typically are not fully indexed to inflation. Through this and other channels, higher aggregate volatility is empirically associated with worsening income distribution.¹¹

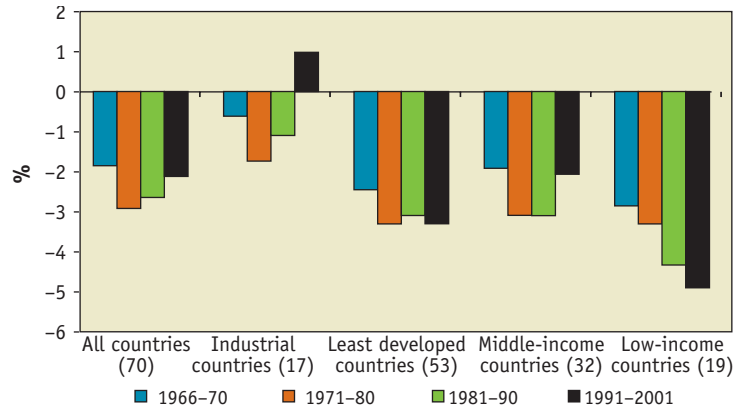
The median current account deficit among developing countries decreased slightly in the

1990s, although there was a contrast between middle- and low-income countries.¹² In the former, the median current account deficit/GDP ratio was about one percentage point lower than in the 1970s and 1980s.¹³ In the latter, it rose by about half a point in relation to the 1980s to exceed 5 percent of GDP in the 1990s (figure 4.5).

FIGURE 4.5

Current Account, 1966–2000

(percentage of GDP, medians by country income group)

Sources: World Bank, *World Development Indicators*; IMF, *BoP4*

Note: The countries featured are those for which data are available over the entire period shown.

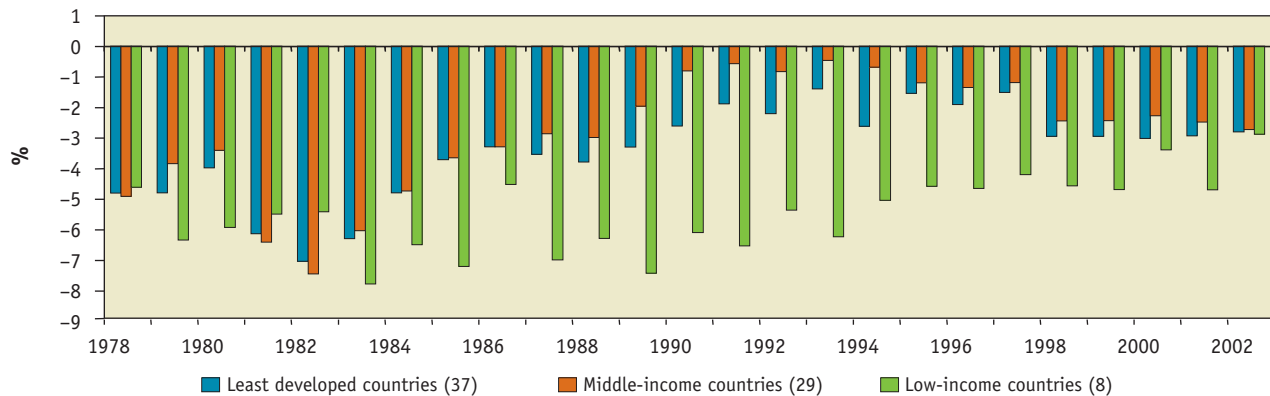
Stability of Policies

Conventional indicators of policy stability also improved over the 1990s. Most notably, the overall fiscal deficit of developing countries shrank from a median value of 6–7 percent of GDP in

FIGURE 4.6

Developing Countries' Overall Fiscal Balance

(percentage of GDP, medians by country income group)

Sources: World Bank, *World Development Indicators*; Institute of International Finance.

Note: The countries featured are those for which complete data are available from the late 1970s on. The availability of consistent fiscal balance data is very limited, particularly for low-income countries.

the early 1980s to 2 percent of GDP in the 1990s, before rebounding to about 3 percent by the end of the decade. The fiscal correction was particularly pronounced among middle-income countries (figure 4.6).

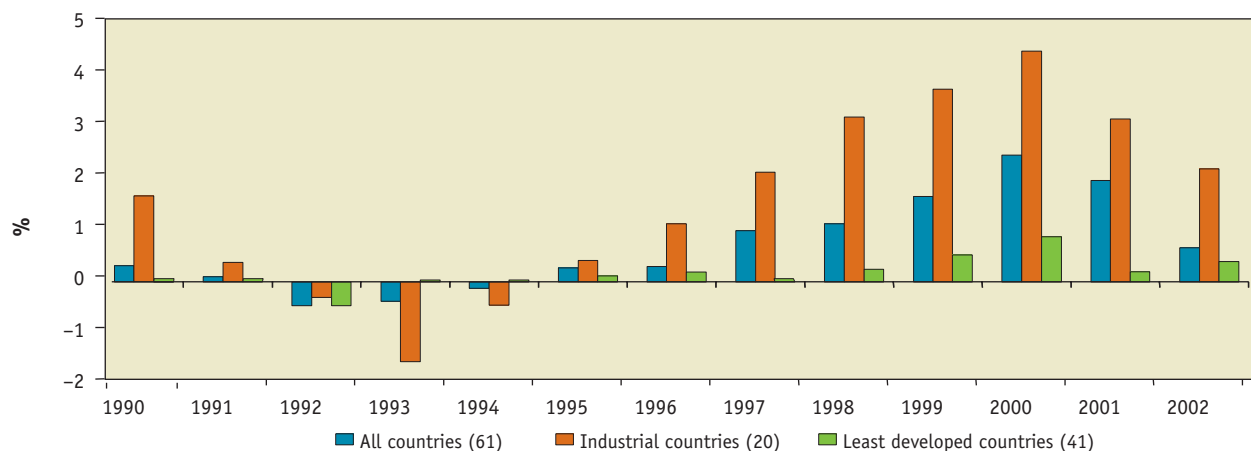
Since the overall fiscal balance is affected by the trajectory of interest rates on public debt (which is beyond the direct control of the authorities), the primary balance likely offers a more accurate measure of a country's fiscal stance. Its evolution over the 1990s shows clear increases in surpluses, particularly after 1995 (figure 4.7). By the end of the decade, the median developing country held a primary surplus, although a much more modest one than that typical of industrial countries.¹⁴

It is more difficult to gauge monetary stability, given the diversity of monetary arrangements across developing countries and over time. One rough measure is the resort to seigniorage—that is, money financing of the deficit. Measured by the change in the money base relative to GDP, seigniorage collection rose in the late 1980s and early 1990s, and then declined in middle-income and (more modestly) low-income economies (figure 4.8). The pattern is roughly similar to that of the inflation rate (figure 4.3 above).

The diversity of exchange rate arrangements across countries makes it hard to gauge trends in exchange rate policy for developing countries as a

FIGURE 4.7

Primary Fiscal Balance, 1990–2002
(percentage of GDP, medians by country income group)



Source: Fitch Ratings.

Note: These data differ in source and coverage from those underlying Figure 4.6. Therefore the two figures are not strictly comparable.

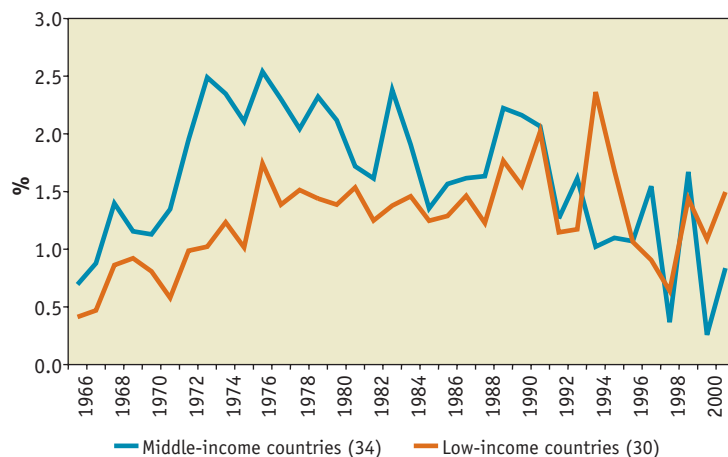
group. One indirect approach looks at trends in real exchange rates. Real exchange rates depreciated over the 1990s in a majority of developing countries. For the median developing country, the volatility of the real exchange rate (as measured by the standard deviation of the rate of change of the real exchange rate) declined from the record highs of the 1980s, but the decline was limited to middle-income countries, and over the 1990s developing countries as a group exhibited much more volatile real exchange rates than industrial countries (figure 4.9).

The relatively high volatility of real exchange rates partly reflected the high incidence of exchange rate crises (figure 4.10). The incidence of devaluations peaked in 1994, with the devaluation of the CFA franc, and in 1998, with the East Asia and Russian Federation crises. When we look at the decade as a whole, it emerges that exchange rate crises were slightly less frequent in the 1990s than in the 1980s, but much more so than in the 1960s and 1970s.¹⁵

High real exchange rate volatility and frequent exchange rate collapses suggest that over the 1990s progress in achieving robust nominal exchange rate arrangements was limited.

FIGURE 4.8

Developing Countries: Seigniorage Revenues, 1966–2000
(percentage of GDP, medians by country income group)



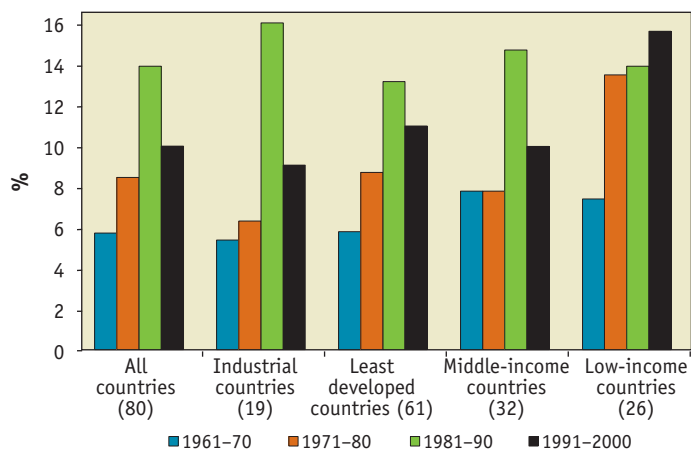
Sources: IMF, *International Finance Statistics*; World Bank, *World Development Indicators*.

Note: The countries featured are those for which data are available over the entire period shown.

FIGURE 4.9

Real Exchange Rate Volatility, 1961–2000

(percent, medians, by income group)



Source: Aten, Heston, and Summers 2001.

Note: Figure shows the standard deviation of the rate of change in the real exchange rate. The countries featured are those for which data are available over the entire period shown.

The External Environment

What role did external shocks, real or financial, play in the observed trends in macroeconomic instability?

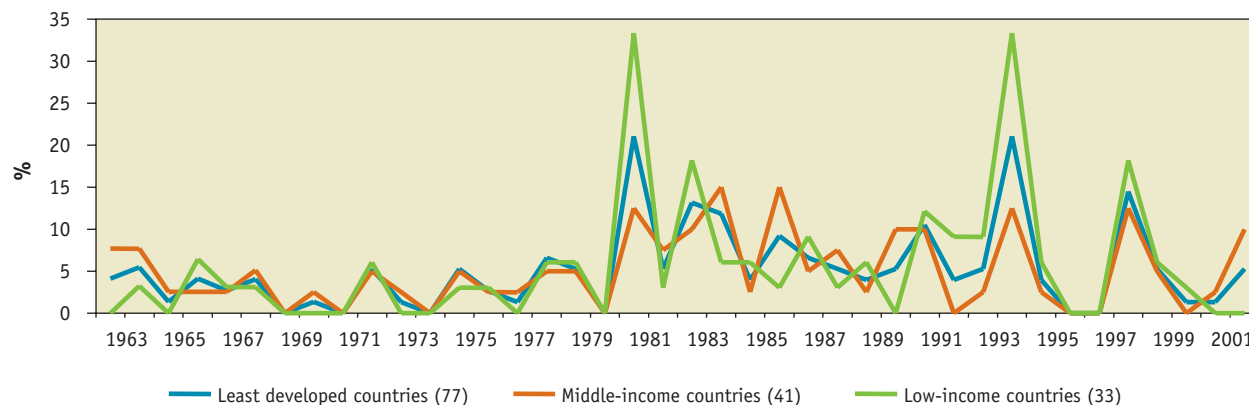
As to real disturbances, developing countries suffered only modest terms-of-trade shocks in the 1990s (see chapter 3). The volatility of the terms of trade declined in all developing regions, in most cases to levels comparable to those of the 1960s. The only exception was the Middle East and North Africa region, whose terms of trade were still less volatile than in the 1970s and 1980s.

It is more difficult to assess the volatility of the financial environment. The behavior of interest rates in the world's major financial markets captures some of this volatility, but the interest rates paid by developing countries incorporate risk premia that make these rates much more volatile than industrial-country interest rates.¹⁶ Volatility measures based on such risk premia, or indeed on flows of capital to developing countries, are not necessarily good indicators of the volatility of the international financial

FIGURE 4.10

Developing Countries: Exchange Rate Crises, 1963–2001

(relative frequency, percent)



Source: IMF, *International Finance Statistics*.

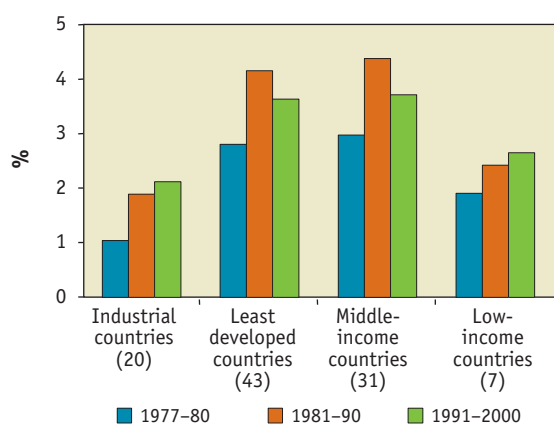
Note: For this figure an exchange rate crisis is defined as in Frankel and Rose (1996): a depreciation of the (average) nominal exchange rate that (a) exceeds 25 percent, (b) exceeds the preceding year's rate of nominal depreciation by at least 10 percent, and (c) is at least three years apart from any previous crisis. The countries featured are those for which data are available over the entire period shown.

environment, since they partly depend on events in the borrowing countries themselves.

Figure 4.11 shows the volatility of international net capital flows as measured by their standard deviation. This measure suggests that the external financial environment was modestly less volatile in the 1990s than in the 1980s, but that capital flows to developing countries remained much more volatile than those to industrial countries.

Several observers have pointed out that large capital flow reversals, often termed “sudden stops,” can be much more damaging for developing economies than is general capital-flow variability, because such abrupt stoppages force costly and disruptive real adjustments.¹⁷ Sudden stops were not significantly more frequent in the 1990s than in the 1980s (figure 4.12). Their incidence declined in the first half of the 1990s, but then rose again in the second half, peaking about the time of the East Asia and Russia crises.¹⁸

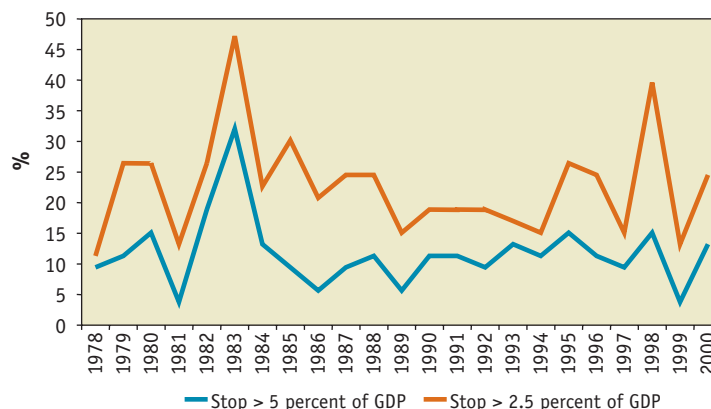
FIGURE 4.11
Volatility of Net Capital Flows, 1977–2000
(percent, medians by country income group)



Source: IMF, *International Finance Statistics*.

Note: Figure shows the standard deviation of net capital flows as a percentage of GDP. Using instead the coefficient of variation leads to qualitatively similar results. The countries featured are those for which data are available over the entire period shown.

FIGURE 4.12
Developing Countries: Sudden Stops in Net Capital Inflows, 1978–2000
(relative frequency, percent)



Source: IMF, *International Finance Statistics*. Balanced sample includes 53 countries.

Note: Data for the first half of the 1970s are too limited to allow a comprehensive analysis. Sudden stops are defined as declines in net capital inflows in excess of a given percentage of GDP. Reversals are allowed to take place in adjacent years; using a two-year window leads to similar qualitative conclusions. Note that reversals could have been defined instead in terms of (large) changes in the current account deficit (as done, for example, by Hutchison and Noy 2002). However, when applied to a large cross-country sample such as the one at hand, the latter criterion tends to pick up numerous current account reversals (particularly in low-income countries) owing primarily to terms-of-trade shocks in a context of modest changes in capital flows.

2. Assessing the Experience of the 1990s

The brief review, above, of the macroeconomic facts of the 1990s shows that developing countries achieved notable progress on fiscal consolidation and inflation performance. Better fiscal and nominal stability helped achieve a moderate reduction in output volatility, facilitated by a somewhat more stable external environment.

But the picture was far from rosy. Developing economies remained much less stable than industrial ones. And extreme volatility accounted for a larger share of total volatility than previously. This latter fact accords with evidence suggesting that instances of currency crashes and “sudden stops” in capital inflows did not diminish during the 1990s. The picture is therefore one of dramatic policy

improvements in some areas, of more moderate improvements in the stability of macroeconomic outcomes, and of persistent vulnerability to extreme macroeconomic events.

Below we use these findings to interpret the growth performance of developing countries during the 1990s. We first review the analytical links between macroeconomic stability and economic growth and then apply that framework to the experience of the 1990s.

Links between Stability and Growth

A stable macroeconomic policy environment features a fiscal stance safely consistent with fiscal solvency, a monetary policy stance consistent with a low and stable rate of inflation, and a robust exchange rate regime that avoids both systematic currency misalignment and excessive volatility in the real exchange rate. Policy makers can foster stable macroeconomic outcomes both *directly*—by removing destabilizing policies themselves as sources of shocks—and *indirectly*—by using policies as stabilizing instruments in response to exogenous destabilizing shocks, thus enhancing the stability of key outcome variables. A stable policy framework is not an end in itself: it matters only as a means to secure a more stable overall macroeconomic environment.

Conceptually, the link between policy stability and growth is quite complex. First, the direct contribution that policy stability can make to growth is likely to depend on the institutional setting. What matters is not just whether policies are good today, but the perceived likelihood that they will continue to be so. To have a significant impact on growth, actual gains in macroeconomic stability need to be seen by the private sector as signs of a permanent change in the macroeconomic policy regime. Second, the potential indirect contribution of policy stability to growth—by promoting stable outcomes in the face of external shocks—is likely to depend on how vulnerable the economy is to shocks. Macroeconomic fragility—through which even minor shocks may have large macroeconomic consequences—may make the use of stabilization poli-

cies too costly, for fear of potentially adverse effects; here the result is policy paralysis. Or fragility may mean that the instability becomes so severe that no feasible policy adjustments are able to counter it.

These two points suggest that the type of macroeconomic stability likely to be most conducive to economic growth—durable outcomes-based stability—involves much more than just moving fiscal, monetary, and exchange rate policies in stabilizing directions. It requires that policy-based stability be given a solid institutional underpinning, that sources of macroeconomic fragility be eliminated to the greatest possible extent, and that the authorities actively exploit the scope for stabilization policy created by these two improvements in the macroeconomic environment.

How Much Macroeconomic Progress Was Made in the 1990s?

As argued above, developing countries achieved significant stability in the traditional macroeconomic policy sense during the late 1980s and early 1990s. These achievements were far from universal, however, and the consequence was that macro instability continued to impede growth in some countries and allowed traditional macro imbalances to generate crises that in many ways resembled those of the 1980s. Neither were the achievements always based on solid institutional foundations to guarantee their permanence, and they frequently did not translate into more effective use of macro policies as stabilization instruments.

A useful framework for discussing these issues is the public sector solvency condition, which requires the present value (PV) of primary surpluses ($T - G$) and seigniorage revenue (dM) to be at least as large as the government's outstanding stock of net debt (B):

$$PV(T - G + dM) \geq B(0).$$

Stability requires a monetary and fiscal policy stance consistent with maintaining public sector solvency at low levels of inflation, while leaving

some scope for mitigating the impact of real and financial shocks on macroeconomic performance. The former requirement imposes constraints on the size of both the primary deficit ($G - T$) and its money financing dM , while the latter refers to the profiles of monetary and fiscal policy over the business cycle. These requirements apply not only to the present but also to the future, as implied by the present-value term in the expression.¹⁹

Reassessing developments during the 1990s in the light of the expression above, the following observations emerge:

- Most countries have yet to convey a convincing impression of fiscal solvency.
- Improvement in fiscal balances was often achieved either with stopgap measures that were unlikely to be sustainable, or in ways inimical to growth and welfare.
- In many countries, fiscal policy remains destabilizing.
- Lasting nominal stability remains to be credibly established.
- Robust exchange rate arrangements have remained elusive.
- The reform agenda has proved to be incomplete.

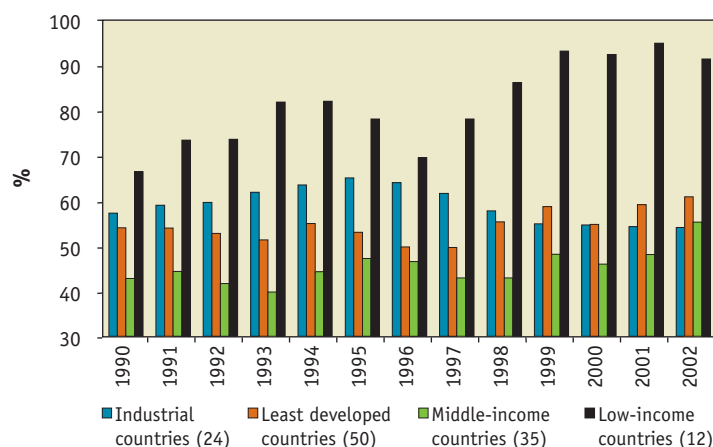
We discuss these observations in turn.

Most Countries Have Yet to Convey a Convincing Impression of Fiscal Solvency

Fiscal adjustment in the 1990s was often weakened by increases in debt that offset improvements in primary surpluses. Despite the trend toward lower fiscal deficits (figure 4.6 above), the ratio of public debt to GDP remained high in most developing countries (figure 4.13). And an incipient decline in these countries' ratios through 1997 was followed by a rise, so that by 2001–02 the debt ratio of the median developing country exceeded the 1990–91 level.²⁰ The rising trend appeared to be particularly marked among low-income countries, although data are too limited to draw firm conclusions.²¹

FIGURE 4.13

Government Debt, 1990–2002 (percentage of GDP, medians by country income group)



Source: World Bank, WDI; IMF, World Economic Outlook; Fitch Ratings.

The persistence of high and rising debt over the 1990s reflects several factors.

First, improvements in fiscal performance were not universal. In India, for example, continuing large primary deficits, averaging close to 4 percent of GDP in the late 1990s, were the main factor behind persistent high debt ratios. Fiscal vulnerabilities played a role in the financial crises in Russia in 1998, Ecuador in 1999, and Argentina in 2002.²² In many cases, the pressure of weak public finances on debt accumulation was revealed by an attempt at rapid disinflation, which implied a drop in deficit monetization, reflected in the decline in seigniorage revenues (figure 4.8 above). Without an equally rapid correction of the primary deficit, debt issuance was left as the only source of financing. The debt impact of disinflation is confirmed by the statistically significant association between disinflation and subsequent rises in debt ratios over the 1990s.

In a majority of developing countries, however, primary deficits did decline over the 1990s, and other factors accounted for the lion's share of public debt accumulation. Key among these were the costs of banking system bailouts, which in several countries provided the main impetus for the

growth in public debt.²³ Some of the banking crises of the 1990s, especially those in East Asia in 1997, had the greatest fiscal impact in history (figure 4.14).²⁴ Such crises also adversely affected income distribution, through their fiscal impact and other channels involving implicit net transfers from poorer households to financial system participants, in order to rescue and recapitalize the failed banks.²⁵

Another factor behind the rise in debt stocks in the late 1990s was large real exchange rate depreciations, undertaken in a context in which the bulk of public debt was denominated in (or indexed to) foreign currency. In both Argentina and Uruguay, for example, the collapse of domestic currencies in 2002 more than doubled the debt-to-GDP ratio, from 50 percent to more than 140 percent of GDP in Argentina and from 40 percent to more than 80 percent in Uruguay. Across emerging markets, debt dollarization remained pervasive: the median ratio

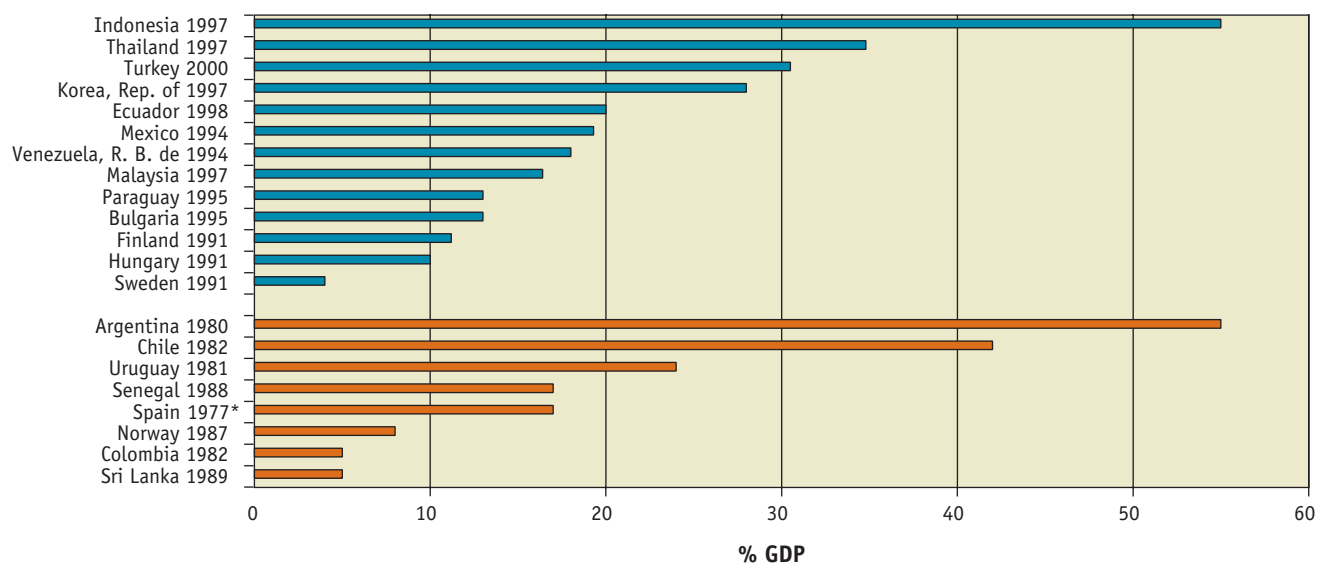
of foreign currency debt to total public debt rose over the late 1990s to more than 55 percent by 2001 (figure 4.15).

A further reason for the persistence of high debt was the high real interest rates that prevailed in many countries, particularly in the late 1990s. This largely reflected the lack of credibility of stabilization efforts (documented below). Excessive reliance on short-term debt made some countries' overall fiscal outcomes, and thus their rates of public debt accumulation, highly sensitive to changes in domestic interest rates. In some countries, notably Brazil, high real interest rates contributed to a rapid pileup of public debt, further weakening perceptions of solvency and macroeconomic stability.

Thus, as to the solvency constraint introduced above, the bottom line is that, in many countries, increases in the observed value of the primary surplus $T - G$ did not suffice to bring down the burden of public debt.

FIGURE 4.14

Total Fiscal Costs of Systemic Banking Crises as a Percentage of GDP



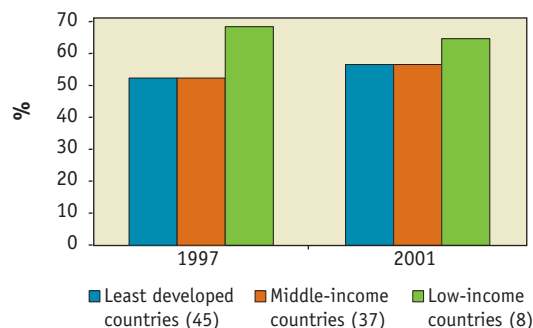
Source: Caprio and Klingebiel 2003.

Note: (*) as a percentage of GNP.

FIGURE 4.15

Developing Countries' Foreign Currency Debt, 1997 and 2001

(percentage of general government debt, medians by country income group)



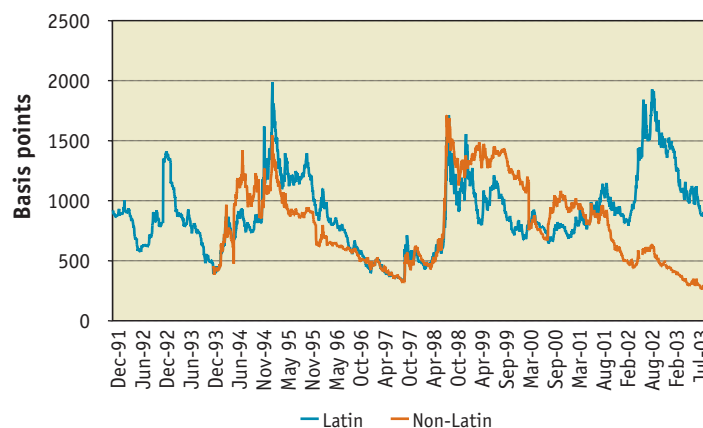
Source: Moody's.

A strong indication that perceptions of solvency remained shaky in the 1990s is the fact that default risk premia, as measured by sovereign borrowing spreads in international markets, remained highly volatile for most emerging countries (figure 4.16). As noted earlier, the evidence suggests that these premia depend not only on borrowers' existing debt burdens but also on investors' perceptions about the quality of borrowers' policy and institutional frameworks, and medium-term economic growth prospects—a key determinant of public sector solvency (Kraay and Nehru 2003). Thus, the volatility of risk premia likely reflected, among other factors, the markets' shifting perceptions about borrowers' ability to ensure stability and sustain adequate growth.

Perceptions of high default risk are not merely a symptom of perceived vulnerability. They themselves undermine macroeconomic stability over business cycles. In particular, they hamper countries' ability to conduct stabilizing policies: when default risk is perceived to be high and highly sensitive to changes in circumstances, a country's attempts to run deficits at times of cyclical contraction may be viewed with suspicion and result in large jumps in risk premia (and thus borrowing costs), in turn discouraging the use of counter-cyclical fiscal policy.²⁶

FIGURE 4.16

Emerging Markets Bond Index Spreads for Latin and Non-Latin Borrowers (basis points)



Source: JP Morgan.

Often Improvement in Fiscal Balances Was Achieved Either with Stopgap Measures or in Ways Inimical to Growth and Welfare

In numerous instances, fiscal improvements themselves were perceived as purely temporary, either because the measures used to achieve them were clearly transitory or because they directly compromised future growth and welfare. In terms of the solvency constraint above, such adjustments often reduced the current deficit significantly but had little effect (or even an adverse one) on the path of future deficits.

Such temporary fiscal correction was sometimes achieved through fiscal tricks designed to meet short-term targets for deficits or debt without making real progress toward fiscal solvency. A common such device involves changing the timing of expenditures (for example postponing them into subsequent fiscal years or accumulating payments arrears) or revenues (for example speeding up the extraction of exhaustible resources or advancing tax collection) without altering their present value, which is the relevant magnitude for solvency. Another popular strategy involves one-time asset sales to finance the retirement of public debt, which in principle implies no change in the government's

net worth. Likewise, governments have often resorted to replacing explicit debt with contingent liabilities (for example granting debt guarantees rather than subsidies to public firms). All these measures improve conventional indicators of cash deficit and gross debt—the two fiscal benchmarks closely watched by investors and international financial institutions—but have no effect on solvency. They represent illusory fiscal adjustment.²⁷

In other instances, the appearance of fiscal adjustment may reflect a rise in revenues resulting from a temporary boom in tax bases. This may happen, for example, when a transitory surge in capital inflows boosts consumption in an economy with a value added tax (VAT)-dominated tax system. When the consumption boom ends, a major fiscal gap opens. There is evidence that this mechanism played a significant role in some emerging markets in the 1990s (Talvi 1997).

More generally, many fiscal adjustment episodes have focused more on the quantity than on the quality of adjustment, with very limited attention given to public spending composition and its implications for growth and welfare. Sometimes the result has been adjustment at the cost of social expenditures, leaving critical social needs unmet (IMF 2003a, chapter 6). But reducing spending on health and education may retard growth not just by reducing the accumulation of human capital, but also by undermining political support for sustaining responsible macroeconomic policies. Such measures defeat the ultimate objective of fiscal adjustment—namely, to allow the resumption of sustained growth.²⁸

More often than not, productive public expenditures, on items such as human capital formation and infrastructure, have also been compressed in the process of fiscal adjustment. The main reason is that the emphasis on cash deficits and debt discourages projects whose costs are borne upfront but whose returns accrue only over time. Such projects have the same impact on the government's short-term financing needs as does pure consumption or any other spending item, but their impact on solvency is quite different because, unlike consumption, they

involve creating assets that yield future tax revenues (either directly or by augmenting output and thence augmenting revenues). The conventional fiscal aggregates—such as the primary or the overall surplus that is closely monitored by international financial institutions and investors—ignore this distinction, and the result is that fiscal adjustment tends to have an anti-investment bias.²⁹

To the extent that reduced investment lowers growth and hence future tax bases, such a bias can adversely affect growth and even fiscal solvency itself. Latin America, where reductions in public infrastructure spending supplied the bulk of the fiscal correction achieved by some of the region's major countries in the 1990s, provides a good example of these perverse dynamics.

In Many Countries, Fiscal Policy Remains Destabilizing

The stabilizing power of fiscal policy depends largely on its ability to mitigate cyclical fluctuations. But in developing countries fiscal policy tends to be pro-cyclical, expanding in booms and contracting in recessions—a pattern that makes it a major source of macroeconomic instability. Take, for example, the cyclical behavior of public consumption. On average in developing countries, a 1 percent increase in GDP growth tends to raise the growth rate of public consumption spending by about 0.5 percentage points. Among industrial countries the corresponding figure is much smaller, at about 0.15 percentage points, and in the G-7 countries the response of public consumption is actually negative.³⁰

Among developing countries, fiscal pro-cyclicality peaked in the 1980s and declined somewhat over the 1990s, but it remained much higher than in more advanced countries (figure 4.17). Pro-cyclical fiscal policy played a key role in some of the recent crises, notably in Argentina.³¹

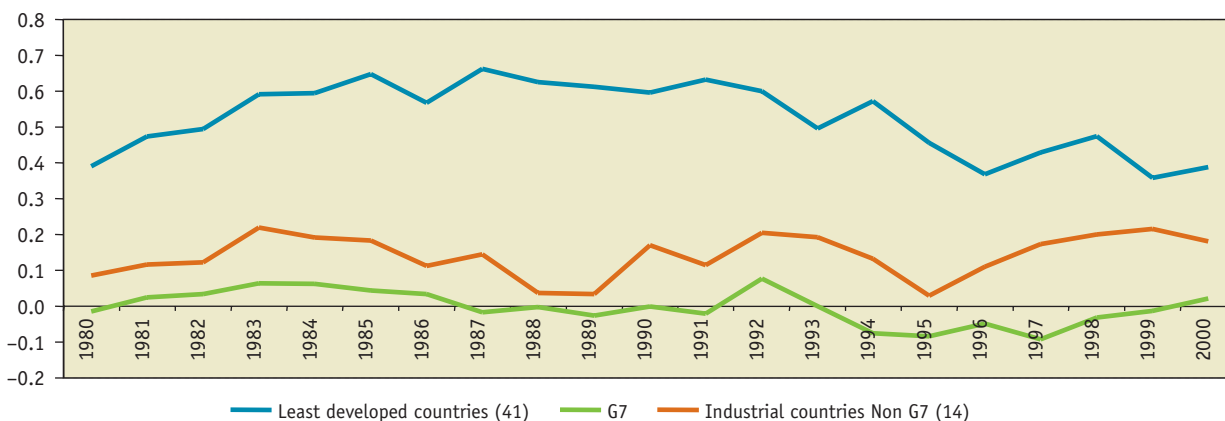
Lasting Nominal Stability Remains to Be Credibly Established

The preceding points refer to two of the three components of the public sector solvency condi-

FIGURE 4.17

Pro-Cyclicality of Public Consumption, 1980–2000

(rolling 15-year windows, medians by country income group)



Source: Authors' own elaboration using data from World Bank's WDI.

Note: The figure shows the median of country-specific coefficient estimates obtained by regressing the rate of growth of public consumption on the rate of GDP growth (plus a constant).

tion: net debt B , and the present value of the primary surplus, $PV(T - G)$. The third component is the present value of seigniorage revenue, $PV(dM)$. Developing countries substantially reduced the monetization of their deficits in the 1990s (figure 4.8 above), but in many of them the stability of prices remains vulnerable.

A transitory reduction in dM can be achieved in a variety of ways, but unless durable increases in $(T - G)$ are institutionalized, continuing pressures on the government budget will result in debt accumulation that will in turn create pressures for monetization. In many countries reductions in dM were not accompanied by lasting solutions to fiscal problems. Some countries—notably Argentina, Brazil, Ecuador, Mexico, Russia, and Turkey—reduced inflation rates as the result of exchange rate-based stabilizations. Better price performance allowed them to reduce money growth rates, but the sustainability of this achievement was questionable in all of them. In most, persistent fiscal pressures were accompanied by real exchange rate appreciations and increases in real interest rates, leading to a pileup of public debt and calling the sustainability

of the stabilizations into question. In Argentina and Ecuador, inability to enforce fiscal discipline led to the adoption of hard exchange rate pegs in the hope that these would somehow harden the government budget constraint as well. Their failure to do so shows that such quick fixes do not achieve lasting nominal stability in the absence of an independent commitment to responsible fiscal policies. In Brazil, Mexico, and Turkey, exchange rate-based stabilizations relying on “soft” pegs eventually resulted in currency crises that gave way to short bursts of accelerated inflation. Likewise, the devaluation of the CFA franc largely reflected the failure of the CFA arrangements to enforce fiscal discipline in the face of adverse terms-of-trade shocks (box 4.1).

In the search for nominal stability, some countries in the 1990s placed their reliance on independent central banks with a commitment to price stability. As does a fixed nominal exchange rate, such an arrangement works in principle by committing the central bank to a low value of dM , thereby imposing a hard budget constraint on the fiscal authorities and forcing the latter to adjust $(T - G)$ to the requirements of price stability. If such an arrangement is to

BOX 4.1**Devaluation of the CFA franc**

The 14 West African countries of the CFA franc zone share the CFA franc as their common currency. From 1948 to 1993, the CFA franc was pegged to the French franc, partly to minimize transactions costs in international trade but also to provide a nominal anchor for these economies.

The common currency was reasonably effective in maintaining financial discipline in member countries for an extended period. Until the mid-1980s, these countries enjoyed lower inflation and more sustained economic growth than other Sub-Saharan African countries. But the shortcomings of the hard peg against the French franc became apparent in the mid-1980s when the zone was hit by two external shocks: a sharp deterioration in member countries' terms of trade, arising from a decline in the world prices of their primary export commodities, and a strong appreciation of the French franc against the U.S. dollar. These shocks placed strong pressures on fiscal outcomes, which depended heavily on commodity revenues and trade taxes. Member countries' failure to impose an orderly correction, partly because they could not adjust public sector wages downward, led to sharply higher fiscal and current account deficits, large increases in external debt, and deteriorating growth performance relative to

other countries in Sub-Saharan Africa. The CFA franc became substantially overvalued.

To reverse the worsening economic performance, the currency's first major devaluation was implemented in January 1994, when the official parity was changed from CFAF 50 to CFAF 100 = F 1. The devaluation was accompanied by measures to improve fiscal performance (broadening the tax base and reducing expenditures), as well as structural reforms focused on trade liberalization, increasing flexibility in labor markets, reducing the direct role of government in production, and restructuring financial sectors.

The results of the devaluation were quite positive. Inflation accelerated at first but quickly converged to single-digit levels. Consequently, the real effective depreciation of the CFA franc in 1994 amounted to about 30 percent. Real GDP growth, negative in 1993, averaged 1.3 percent for the zone as a whole in 1994, and accelerated subsequently. Overall fiscal deficits, which had peaked at about 8 percent of GDP in 1993, had fallen to just over 2 percent of GDP by 1996. A substantial increase in saving rates reduced the current account deficit by some 2 percent of GDP between 1993 and 1996. Coupled with capital repatriation and renewed external assistance, this substantially increased the foreign exchange reserves of regional central banks.

Source: Clement et al. 1996.

promote lasting price stability, the central bank must be able to resist pressures for monetization arising from the fiscal side. That is, it must achieve true independence from the finance ministry.

The establishment of truly independent and effective central banks has not been a straightforward matter. The creation of independent central banks in República Bolivariana de Venezuela in 1989 and in Mexico in 1993, for example, did not prevent the emergence of the strong political pressures for credit creation that contributed to cur-

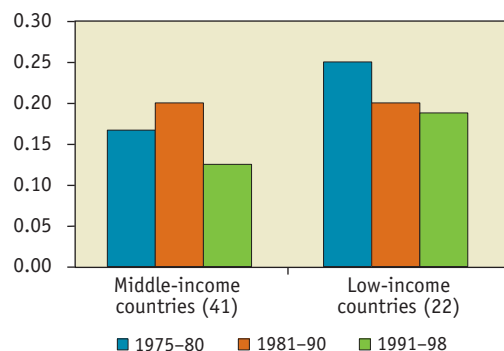
rency crises in both countries in the first half of the 1990s. Similar pressures were brought to bear on Argentina's central bank in 2001, on the eve of the collapse of the hard peg.

Some observers suggest that a good indicator of de facto central bank independence is the frequency of turnover of the central bank governor.³² Among middle-income countries, turnover was sharply lower in the 1990s than in the 1980s, and among low-income developing countries it was modestly lower (figure 4.18).

FIGURE 4.18

Central Bank Independence in Developing Countries, 1975–98

(annual governor turnover, medians by country income group)



Source: Sturm and de Haan 2001.

Since the rate of turnover of central bank governors may not be a good indicator of the expected permanence of nominal stability,³³ it may be useful to observe the behavior of the private sector, to try to infer what the private sector expects about nominal stability.

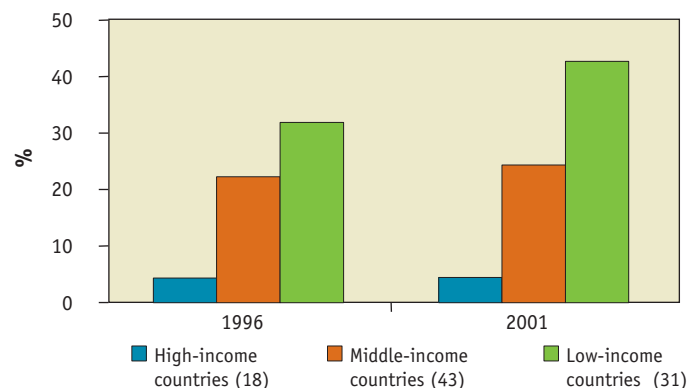
First, since agents can partly protect themselves against nominal instability by denominating their assets in foreign exchange, one indicator of the confidence that private agents in developing countries may have in the permanence of nominal stability is the incidence of dollarization. Improved confidence in nominal stability should result in a reduced incidence of dollarization.³⁴ Many developing countries remained heavily dollarized at the end of the 1990s and, as figure 4.19 shows, the median degree of dollarization of bank deposits among low- and middle-income developing countries actually *rose* over the 1990s.³⁵ The contrast with richer countries is stark: their much lower degree of deposit dollarization showed little change over the same period.

Second, ex post real interest rates tend to be high when actual inflation falls short of expectations, and when uncertainty about inflation is high. During the 1990s, real interest rates were declining in industrial countries, but in developing countries they

FIGURE 4.19

Dollarization of Deposits, 1996 and 2001

(foreign currency deposits as a percentage of total, medians by country income group)



Source: IMF-IFS.

Note: For Austria, Haiti, Israel, Mexico, Macedonia, and Netherlands we take the 1997 data, and for Ghana, Italy, Norway, Tajikistan, and Uganda we take the 2000 data. High corresponds to OECD and non OECD countries.

remained high—and indeed were higher at the end of the decade than at the beginning (figure 4.20).

Of course, both dollarization ratios and ex post real interest rates reflect a variety of factors in addition to perceptions of nominal instability, so this evidence is only suggestive.³⁶ But other indicators point in the same direction. As an extreme example, the currency premium on the Argentine *peso* was positive throughout the 1990s, and it became very large at times of turbulence, in spite of the supposedly irrevocable peg to the dollar that was enshrined in Argentina's Convertibility Law.³⁷

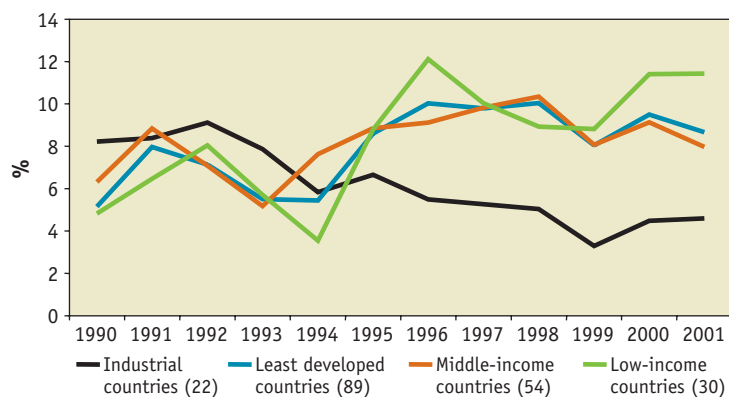
Robust Exchange Rate Arrangements Have Remained Elusive

Progress toward robust exchange rate regimes probably was an early casualty of the search for macroeconomic stability. Many countries adopted exchange rate-based stabilization strategies as a supposedly quick recipe for disinflation, as discussed above. These strategies not only meant adopting single-currency pegs, but also made such pegs very difficult to adjust, since they tied the credibility of

FIGURE 4.20

Ex Post Real Interest Rates, 1990–2001

(percent, medians by country income group)



Source: IMF-IFS and WDI-WB.

Note: The real interest rate is measured as the (log) difference between the nominal interest rate and the one-period-ahead rate of GDP inflation.

the entire stabilization program to the stability of the peg. In effect, defending the peg sometimes became an end in itself, even after the peg had clearly outlived its usefulness. More flexible exchange rate arrangements have too often been adopted only after currency crises.

The Mexico and East Asia crises, which involved the collapse of a variety of soft pegs, prompted what came to be known as the “two extremes” view of exchange rate regimes. In this view, only irrevocable pegs (including both currency boards and monetary unification or dollarization) and freely floating exchange rates were fit for survival in a world of increasing financial integration, because only these extreme regimes appeared to offer enough transparency to make exchange rate policy easily verifiable and hence credible.³⁸ There appeared to be an incipient flight away from intermediate regimes,³⁹ based on the belief that monetary stability required either institutional arrangements that took discretion over money growth rates out of the hands of central banks, or fully independent central banks with reputational stakes in low and stable inflation, as well as the means (legal authority, policy instruments, human-resource capability) to achieve that goal.

The late 1990s showed that neither dollarization nor currency boards offered a speedy shortcut to fiscal orthodoxy and nominal stability. Argentina’s experience revealed the threat to stability that was posed by inflexible exchange rates, which made adjustment to real disturbances exceedingly difficult. Earlier in the decade, the fate of the CFA franc had offered the same lesson, though it was less publicized (box 4.1 above).

The Reform Agenda Has Proved Incomplete

The developing countries’ macroeconomic reform agenda of the 1990s was deficient in its very design, in that it left in place—or, worse, created—important sources of fragility.

The first of these sources stemmed from lack of attention to the soundness of the financial sector. While research has shown that an *efficient* domestic financial system is important for growth, the experience of the last decade strongly suggests that a *sound* one is indispensable for macroeconomic stability. The reform agenda of the early 1990s often ignored the central role of the financial system for macro stability—even though this role had been clearly revealed by the Southern Cone crises of the early 1980s. To the standard prescriptions for stability—a solvent fiscal stance, low and stable money growth, and robust exchange rate policies that nevertheless allow adjustment to shocks—it is necessary to add policies that foster a sound financial system.⁴⁰

Few countries achieved a sound domestic financial system in the 1990s. As a result, an important source of macroeconomic fragility was not only left in place but may, indeed, have been magnified in the 1990s. Inadequate attention to financial sector soundness often left the domestic economic environment rife with institutional problems involving moral hazard, rendering both public and private balance sheets highly vulnerable to changes in interest rates and exchange rates. These features posed big obstacles to outcome-based stability in a number of major countries. Ironically, under these circumstances incipient progress along conventional dimensions of macro stability such as disinflation

may even have made financial crises *more* likely. For example, the use of the exchange rate as a nominal anchor may have encouraged agents to ignore exchange rate risk and in the case of “hard” pegs such as that of Argentina may have made it more difficult for regulators to induce financial institutions to factor such risk into their portfolio allocations without raising fears that the peg might be abandoned.

Partly because of this gap in the reform agenda, the incidence of systemic banking crises was even higher in the 1990s than in the 1980s (figure 4.21).⁴¹

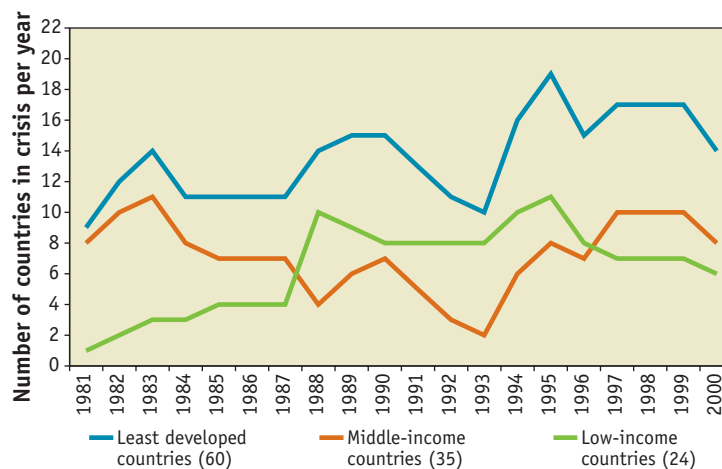
A second key source of macroeconomic fragility was increased capital mobility, which made economies vulnerable to sudden shifts in capital flows. The combination of unsound policies in the financial sector and open capital accounts helps explain many characteristics of the crises of the 1990s. Many of these crises involved simultaneous currency and banking collapses. Often banking problems preceded a currency crash, which then fed back into a full-blown financial crisis.⁴² Further, many of the crises were not foreshadowed by standard macroeconomic imbalances. Those that were hardest to predict—especially the Mexican and Asian crises—occurred in a setting where the main vulnerabilities concerned financial, rather than macroeconomic, variables and took the form of balance of payments runs similar to traditional bank runs.⁴³ The deepest of the crises involved serious problems in the financial sector (Mexico, Asia, Ecuador, and Turkey), in private sector balance sheets (Asia, Argentina), or fiscal insolvency (Ecuador, Argentina). Where none of these problems was present and events took the form of a simple currency crash (as in Brazil), crisis-induced economic contraction was less severe.⁴⁴

The Growth Payoff

Although many developing countries achieved faster growth in the 1990s than in the 1980s, this achievement was only a modest one, since growth in the 1980s was generally slow. For a majority of

FIGURE 4.21

Incidence of Systemic Banking Crises, Developing Countries, 1981–2000



Source: Caprio and Klingebiel 2003.

countries, growth rates in the 1990s remained well below those of the 1960s and 1970s.⁴⁵ Is this growth payoff commensurate with the progress made in macroeconomic stabilization, or is it disappointing? It is important to keep in mind that industrial countries also grew much more slowly in the 1990s than in the 1960s and 1970s. But several other issues also need to be taken into account.

First, as already explained, the growth payoff from macro stability depends on whether stability is perceived as permanent. In many instances progress in stabilization was based on policy changes that were not perceived as durable, or failed to include the reform of underlying institutions. It is these latter reforms that ultimately determine whether policy improvements are sustainable and perceived as such by the private sector. The limited progress made on this front probably undermined the contribution of macro policy improvements—even where they might have been sustained—to raising economic growth. Moreover, a vicious circle may have taken hold in some countries, in that the social consensus that made the policies possible, and was necessary to make them sustainable, faltered in the absence of a fairly prompt growth payoff.

Second, the search for macro stability, narrowly defined, may in some cases have actually been inimical to growth. Preoccupation with reducing inflation quickly induced some countries to adopt exchange rate regimes that ultimately conflicted with the goal of outcomes-based stability. Others pursued macro stability at the expense of growth-enhancing policies such as adequate provision of public goods, as well as of social investments that might have both increased the growth payoff and made stability more durable.

Seen in this light, some economies may well have been overstabilized. From a microeconomic perspective, the presumed stability gains from further fiscal adjustments may not have justified the costs of forgoing key social and productive expenditures. From a macroeconomic perspective, the narrow focus on stability may have precluded more progress toward counter-cyclical policies. The contrast between the significant fiscal adjustment achieved by most developing countries and the persistence of outcomes-based instability suggests that this factor may have been important.

Third, even in countries that took radical steps toward macroeconomic stabilization, the reform agenda of the 1990s failed to address macroeconomic fragilities. Most notably, inappropriate policies toward the domestic financial sector and the capital account of the balance of payments left many stabilizing economies highly vulnerable to adverse shocks. Extreme macroeconomic volatility actually increased among developing countries during the 1990s, and the adverse impacts of extreme volatility on growth appear to exceed those of normal volatility. Thus, the growth payoff of the macroeconomic policy improvements achieved in the 1990s was limited not only by their weak institutional underpinnings but also by the extreme outcomes-based instability that emerged during the decade, mainly as a result of the fragilities that the reform agenda overlooked.

Fourth, the growth payoff of macroeconomic stability may have been oversold. Macro instability hampers investors' ability and willingness to respond to investment opportunities, understood in

the broadest sense of the term, but for macro stability to deliver growth, those opportunities must exist in the first place. Thus while macroeconomic stability may facilitate growth when other forces are driving the growth momentum, it is not enough to drive the growth process itself: growth depends on the policies and institutions that shape opportunities and incentives to engage in growth-enhancing activities. The importance of these complementary factors may not have been sufficiently appreciated early in the 1990s, and gains in macroeconomic stability were often not accompanied by necessary growth-enhancing policies and institutional reforms in other parts of the economy.

In sum, there is little reason to expect a simple, direct association between macro stability and growth. From this perspective, the limited growth payoff that emerged from the gains in macroeconomic stability achieved during the 1990s may not be very surprising.

3. Lessons

What lessons can be drawn from the experience of the 1990s? An important lesson is that old verities still hold true: perceived fiscal insolvency, high and unstable inflation, and severely overvalued real exchange rates remain reliable recipes for extreme instability and slow growth. But while in some cases slow growth and frequent crises reflected insufficient policy improvements, the evidence also highlights shortcomings in the reform agenda. Three elements are critical: the institutional framework for monetary and fiscal policy, the prevention of macroeconomic fragilities, and complementary pro-growth policies. These elements are reviewed below.

Institutions for Macroeconomic Policy Formulation

The institutional context in which traditional macroeconomic policies are formulated is critical to an adequate resolution of the tradeoff between policy credibility and flexibility. Both credibility

and flexibility are required for sustained and sustainable stability that ultimately matters for economic growth. In the fiscal arena, an appropriate institutional setting should ensure transparency; sustainable solvency, possibly through the adoption of fiscal rules; flexibility; and a pro-growth structure of government budgets. With respect to the monetary and exchange rate policies within the purview of the central bank, the most successful institutional innovation to emerge in the 1990s seems to be one featuring an independent central bank with a floating exchange rate regime and a publicly announced inflation target. The following discussion examines these aspects of the institutional framework for the formulation of traditional macroeconomic policies.

Fiscal Policy

Budgetary institutions and counter-cyclical fiscal policies.

The critical problem of pro-cyclical fiscal policy persisted through the 1990s. The phenomenon arises because, in the absence of strong budgetary institutions, a “tragedy of the commons” sets in during good times when government revenues are high: political imperatives cause the government to spend all of its resources (even to borrow) in the boom, leaving little margin of solvency from which to finance fiscal deficits when times are bad.

What is required in such situations is to make it politically possible for the government to run fiscal surpluses during good times. This calls for the development of budgetary institutions or the implementation of fiscal rules that force claimants on the government’s resources to respect the government’s intertemporal budget constraint, thus securing prudent fiscal responses to favorable shocks.

Transparent fiscal rules embodied in the country’s constitution or passed into law subject to change only by legislative supermajorities, with stipulated penalties for noncompliance, may be effective in many contexts.⁴⁶ In countries where government revenues depend heavily on the prices of primary commodities, institutions such as oil stabilization funds may need to be created to save windfalls. More generally, the key objective is to provide scope for automatic fiscal stabilizers to do

their job. One promising example is Chile’s Structural Surplus rule, which establishes fiscal policy targets adjusted for the variation in growth over the cycle. An alternative proposal, yet to be implemented, focuses on the creation of an independent fiscal policy council, along lines similar to an independent central bank, to set annual deficit limits.⁴⁷ Whatever institutional arrangement is chosen, a basic policy step is to set fiscal deficit targets in cyclically adjusted terms, a practice that could be encouraged by the international financial institutions.

Similar arguments apply to fiscal decentralization. While local provision of public goods has much to recommend it, experience has shown that fiscal decentralization is also vulnerable to a common problem unless institutional remedies are implemented that impose hard budget constraints on subnational governments. One way to reduce the pro-cyclical bias in decentralized systems is to insulate resource-sharing arrangements from the effects of the cycle.⁴⁸

Another important institutional aspect of fiscal policy is that of transparency. Uncertainty about the state of their fiscal accounts probably strongly influenced the risk premia that developing-country borrowers paid in international capital markets during the 1990s. Enhanced fiscal transparency is an important step in reducing such uncertainty. There is also evidence that more transparent budgetary procedures are associated with lower deficits and debt.⁴⁹ The interests of fiscal transparency are well served by a full accounting of the contingent liabilities of the public sector, including those of the central bank, and by explicit recognition of implicit liabilities, including those embedded in public pension systems.

Fiscal flexibility. The 1990s showed that fiscal flexibility is as important as fiscal credibility, and that to be effective, fiscal rules need to balance these two objectives. Simple rules are more transparent and hence more easily verifiable, but they need to be flexible enough for fiscal policy to react to a changing economic environment. Overly rigid rules are unlikely to be sustainable or credible, as shown by the recent near-demise of the European

Stability Pact owing to its neglect of the role of the macroeconomic cycle.

Another lesson of the 1990s, however, is that it is risky for governments to depart from the path of fiscal rectitude, even when outcomes-based stability would benefit from this step, because markets may interpret it as a sign of fiscal lassitude. The tight fiscal policies adopted by the countries most heavily affected by the Asian financial crisis, immediately after the crisis and while in the grip of severe recessions, exemplify this problem.⁵⁰ If such threats to confidence were justified, the importance of improving fiscal institutions is enhanced, since the role of such institutions is precisely to secure the credibility needed for governments to exercise fiscal flexibility without being unjustly punished by financial markets. If the threats to confidence were overstated, however, a key moral of the experience of the 1990s is that it is important not to make a fetish out of fiscal stability as such. The need then is only to achieve enough stability to convince the private sector that there has been a sustainable change in regime. Once this is accomplished, the authorities gain scope to use macroeconomic policy instruments flexibly for stabilization purposes, and should exploit this to achieve outcomes-based stability.

Sustainable fiscal solvency and the avoidance of fiscal stopgaps. For a fiscal adjustment to be perceived as durable, it must be based on sustainable policies, and on measures that are likely to enhance growth, on both the expenditure and revenue sides of the government's budget. In short, the *composition* of fiscal adjustment matters. With respect to sustainability, fiscal adjustments should be based on measures that the private sector can expect will increase the *present value* of future primary surpluses. Temporary fiscal stopgaps fall short of this criterion. With respect to growth, some measures such as highly distortionary taxes (for example on external trade or on domestic financial transactions), or cuts in spending on productive infrastructure or human capital, may raise the present value of the primary surplus at the expense of growth. These policies may even fail to raise the present value of future primary surpluses if their negative effects on economic growth have a

sufficiently adverse impact on growth in government revenues (Easterly and Servén 2003).

Monetary Policy and Exchange Rate Regimes

While the evidence suggests that low and stable rates of inflation are conducive to economic growth, theory suggests that what is most important is convincing the private sector that low and stable inflation is here to stay. In the 1990s this proved hard to do. As does fiscal credibility, price stability requires an appropriate institutional underpinning. One lesson of the decade is that purely monetary arrangements are not enough to ensure the credibility of monetary policy: since not even the most rigid monetary arrangements (a currency board or *de jure* dollarization) provide a guarantee of hard government budget constraints, fiscal credibility is necessary too. Further, a credible commitment to fiscal solvency is not the same thing as a credible commitment to price stability, since fiscal solvency is in principle compatible with relatively high and fluctuating levels of seigniorage revenue. Thus there is a separate role for monetary institutions that can credibly preclude excessive reliance on seigniorage revenues.

The 1990s showed that monetary credibility has to be earned the hard way, through anti-inflationary performance. In this regard, a successful innovation during the last decade has been the institution of an independent central bank operating a floating exchange rate, and with a commitment to price stability that takes the form of a publicly announced inflation target. Such an arrangement is currently maintained by Brazil, Chile, Colombia, Korea, Mexico, Peru, South Africa, and Thailand. It has the important advantages of flexibility (since the central bank is not constrained in *how* it attains its inflation target) as well as of commitment (since the central bank's prestige is put publicly on the line). Most important, the adoption of floating exchange rates and inflation targets allows the domestic authorities to establish their anti-inflationary credibility by establishing a track record rather than by attempting to import it through some form of exchange rate peg. The longest running of these arrangements—Chile's—was remarkably successful in

maintaining price stability throughout the 1990s, while avoiding severe episodes of real exchange rate volatility. More recent converts to this type of nominal institutional arrangement have also been quite successful thus far.

Robustness: The Scope of the Macroeconomic Reform Agenda

Beyond traditional macroeconomic policies, the proliferation of crises during the 1990s has made it clear that the stability agenda should encompass not just fiscal, monetary, and exchange rate policies, but also policies designed to reduce macroeconomic—especially financial—fragility. These include, in particular, policies directed toward the domestic financial system and toward the management of the country's capital account.

The Domestic Financial System

The experience of the 1990s once again underlined the importance of an appropriately regulated and supervised domestic financial system to avoid macroeconomic vulnerability arising from the concentration of lending in highly risky activities or the emergence of balance sheet mismatches.

Although the repressed domestic financial sectors that prevailed in many developing countries during previous decades were undoubtedly inimical to economic growth, an important old lesson that was relearned in the 1990s is that necessary reforms in the domestic financial sector are not simply synonymous with liberalization. Removing restrictions on entry, on the setting of interest rates, and on the allocation of the portfolios of financial institutions without simultaneously strengthening the institutional framework in which the financial sector operates creates excessive scope for moral-hazard lending. This leaves financial sector balance sheets vulnerable to insolvency in response even to moderate macroeconomic shocks (see chapter 7).

The key lesson is that, for domestic financial systems that have not already been liberalized, the pace of liberalization should be modulated to reflect the quality of the institutional framework governing

the domestic financial sector. As has been widely recognized, the appropriate institutional framework has a number of ingredients: clear and secure property rights, an efficient and impartial legal system to enforce contracts, appropriate legal protection for creditors, well-specified accounting and disclosure standards, a regulatory system that screens entrants while encouraging competition, the imposition of adequate capital requirements and prevention of excessively risky lending, and a supervisory system that can effectively monitor the lending practices of domestic financial institutions. Improving the quality of this framework deserves high priority in the macroeconomic reform agenda.

The Capital Account

With respect to the capital account, the management of a country's integration into international financial markets remains a controversial part of the institutional agenda. As in the case of the domestic financial sector, enhanced integration with world financial markets promises many benefits, but when the domestic institutional structure is defective the costs—in the form of macro risks—may outweigh those benefits. Increased financial openness makes it easier for investors to punish countries whose macroeconomic policies are perceived to be off-track.⁵¹ Despite the theoretical arguments in favor of opening the capital account, the international evidence is inconclusive on whether this has been conducive to growth.⁵² Moreover, the evidence suggests that, contrary to theoretical predictions, it has not helped to reduce macroeconomic (especially consumption) volatility.⁵³

The desire to avoid macroeconomic fragility makes a strong case for institutional arrangements regarding the capital account that at least preclude the emergence of maturity mismatches in a country's external balance sheet, since such mismatches can make the country vulnerable to creditor runs analogous to bank runs.⁵⁴ The question is *how* to preclude them. Creditors favor short maturities as a means of monitoring borrowers and controlling their behavior precisely when asymmetric information and moral hazard problems are serious. Under

these circumstances, therefore, short-maturity borrowing will be substantially less costly to borrowers than long-term borrowing. The problem is, of course, that voluntary short-maturity loans between private parties fail to take into account the social costs associated with the risk of creditor runs.

To tackle this problem, in some East Asian countries, as well as Chile, the public sector has accumulated large foreign exchange reserves to offset liquid liabilities incurred by the private sector. This approach is likely to be very expensive: holding large volumes of low-yielding, short-term assets instead of (illiquid) long-term investments entails serious opportunity costs and even fiscal ones, because the purchase of foreign exchange reserves needs to be sterilized by the sale of typically higher-yielding domestic government liabilities. Meanwhile, the incentives that give rise to short-term borrowing are left in place, and the costs of insuring against creditor runs are ultimately borne by taxpayers.

An alternative route is to discourage the private sector from incurring short-term external liabilities in the first place—by restricting short-term capital inflows—or to make those liabilities effectively less liquid in times of crisis—by restricting short-term capital outflows. Because both of these policies tend to raise the cost of short-term loans, they effectively operate by internalizing the systemic costs associated with the risk of creditor runs.

Can such restrictions be designed to be minimally distortionary with respect to other types of capital flows? And can they be made effective? These questions have attracted considerable attention in recent years. As to restrictions on inflows, the evidence is modestly reassuring. Cross-country and country-specific studies generally conclude that inflow restrictions such as unremunerated reserve requirements (such as the Chilean *encaje*) tend not to affect the overall volume of inflows but to affect their composition, reducing the share of short-term flows in the total.⁵⁵ Evidence on the effects of restrictions on outflows is much less conclusive.

On balance, the available evidence suggests that restrictions on short-term capital inflows may have a role to play in the pursuit of outcomes-based macro-

economic stability in developing countries. However, it is important to be aware that such restrictions entail costs to private agents, through their impact on the availability or price of financing.⁵⁶

In addition to maturity mismatches, external borrowing aggravates the problem of currency mismatches, to the extent that foreign lenders are less willing to accept the risk of currency depreciation than are domestic lenders and thus refuse to extend credit in the borrower's currency. The solution here is not to restrict access to external borrowing. In the short run, the solution is to promote the efficient distribution of the exchange rate risk within the domestic economy by ensuring, through regulatory means, that it is appropriately priced and therefore borne by those agents best able to bear it (typically, those holding foreign currency assets, including exporters). In the case of sovereign borrowing, the priority is to ensure that borrowing decisions reflect the existence and potential cost of exchange rate risk. Over the longer term, a larger role in ameliorating the problem of currency mismatches would be assumed by institutional changes that promote credible nominal stability, thus mitigating exchange rate risk. The experience of economies such as South Africa that are starting to be able to borrow externally in their own currencies is consistent with this perspective. The international financial institutions could help advance this process by denominating their lending in local currency, a practice that they are already starting with some emerging markets.

Complementarities among Pro-Growth Policies

Much of the rest of this volume focuses on the role of pro-growth policies outside the macroeconomic arena. Such policies include, for example, the implementation of an open international trade regime, the adoption of national innovation policies, well-functioning factor markets, and an investor-friendly legal and regulatory environment. In some cases, those policies actually facilitate the adoption of reforms aimed at macroeconomic stability: for

example disinflation or the correction of a real misalignment is easier and less costly to achieve when labor and financial markets are functioning well.

Policies of this type are mutually complementary with policies that focus on creating and preserving macroeconomic stability. An unstable macroeconomic environment tends to undermine the growth benefits of such policies. Still, what we have learned from the 1990s is that macro stability alone is not enough; policies outside the macroeconomic arena are themselves indispensable to harvest the fruits of macroeconomic stability in the form of sustained high rates of economic growth.

Notes

1. Easterly (2001) also states the view that the multiple crises of the 1990s represent a symptom of, rather than an “explanation” for, the slow growth of the 1990s.
2. In recent years interest has revived, sparked by Ramey and Ramey (1995), in the adverse effects that real and nominal instability can have on economic growth. For a recent evaluation of the growing empirical literature on the subject, see Hnatkovska and Loayza (2004).
3. The level of inflation is strongly associated with its volatility, as well as with the volatility of relative prices. For these reasons, and because high levels of inflation are likely to be viewed as unsustainable, inflation itself is commonly taken as a summary indicator of instability. In turn, the external current account deficit is commonly viewed as a leading indicator of future instability, with excessively large—and thus unsustainable—deficits often predicting a macroeconomic crisis.
4. See IDB (1995); De Ferranti et al. (2000); and Easterly, Islam, and Stiglitz (2001). The popular view that instability is on the rise is documented by Rodrik (2001b).
5. Here the focus is on a sample of 97 countries with populations greater than 500,000, for which there is complete information on real GDP growth over the period 1960–2000. The population lower limit is set to exclude highly volatile island economies. The total sample includes 20 industrial and 77 developing economies, of which three (Israel, Hong Kong (China), and Singapore) are higher-income non-OECD countries
6. The decline in developing-country volatility over the 1990s is documented also by Rodrik (2001b), De Ferranti et al. (2000), and Hnatkovska and Loayza (2004). The same result holds if volatility is measured by a robust statistic such as the interquartile range instead of the standard deviation.
7. The decline in volatility was statistically significant: formal tests strongly reject the hypothesis that the cross-country distribution of growth volatility did not change between the 1980s and the 1990s, as well as the hypothesis that the changes in volatility across the two decades are centered at zero.
8. The information on private consumption is available only for a slightly smaller country sample. The fact that consumption volatility declined less than income and output volatility in the 1990s is underscored by Kose, Prasad, and Terrones (2003), and has been viewed as a failure of financial openness to provide the consumption-smoothing mechanism predicted by conventional theory.
9. Negative extreme shocks also accounted for a larger fraction of the total volatility of gross national income and consumption in the 1990s than in previous decades. In technical terms, the frequency distribution of growth rates shows heavier left tails in the 1990s. For both GDP and consumption growth, this is confirmed by conventional skewness statistics.
10. There are good reasons why. On the one hand, with a given set of risk management mechanisms, large shocks may be more difficult to absorb than small ones. These threshold effects of volatility have been found to be empirically relevant for investment (Sarkar 2000; Servén 2003). On the other hand, owing to asymmetries built into the economy, negative shocks have qualitatively different consequences than positive ones. A clear example is that of buffer stocks such as bank liquidity or international reserves: large adverse shocks (or a succession of small negative ones) can exhaust them and trigger an adjustment mechanism very different from the one involved for positive disturbances. The same applies to firms’ net worth: once it becomes negative, adjustment takes place through bankruptcies, with the corresponding destruction of productive assets.
11. On the relation between macroeconomic volatility and poverty, see Laursen and Mahajan (2004). Easterly and Fischer (2001) investigate the impact of inflation on the poor.
12. The availability of data on the other indicators presented in the rest of this section is in general much more limited than in the case of growth and inflation. For this reason, the figures below refer to the universe of countries for which information on the variable of interest is available over the entire period shown. That universe varies across different variables, and therefore the conclusions of the analysis have to be taken with some caution.
13. In part, however, this apparent improvement reflects the “sudden stop” of capital inflows to crisis-afflicted emerging-market economies.

14. Other measures of fiscal policy stability also showed an improvement. For example, the volatility of public spending (as measured by the standard deviation of public consumption growth) declined sharply among middle-income countries. Among lower-income economies, however, it showed little change relative to previous decades.
15. In a smaller country sample (whose coverage ends in 1997), Bordo et al. (2001) also find that the frequency of currency crashes declined in the 1990s compared to the preceding 15 years.
16. The fact that weak policies and institutions (or other factors) can result in high default risk even at moderate levels of debt has prompted recommendations for extra-cautious upper bounds on debt ratios for developing economies; see Reinhart, Rogoff, and Savastano (2003). On the other hand, the dependence of spreads on lenders' expectations raises the possibility of self-fulfilling debt crises; see for example Cohen and Portes (2003).
17. See Calvo (1998); Calvo and Reinhart (2000); and Mendoza (2001). However, capital flow turnarounds do not necessarily represent exogenous shifts in international investors' sentiment. They reflect in part the effects of developments in the destination economies (resulting from, among other factors, changing domestic policies) as well as in international financial markets affecting the perceived risk and return differentials from investing in different markets.
18. The incidence of capital flow reversals among industrial countries (not shown in figure 4.12 to avoid cluttering the graph) was also fairly high in the 1990s, although admittedly the *level* of capital flows was much higher among them than among developing countries.
19. Indeed, one of the key dilemmas for macroeconomic policy making is how to assure the private sector that future policies will abide by the requirements of solvency and low inflation, without having to surrender the short-run stabilization capability of monetary and fiscal policy. As discussed later in this section, many of the achievements and disappointments of the 1990s relate to the search for lasting solutions to this dilemma.
20. The same pattern is found in IMF (2003f). Among the 46 low- and middle-income countries in the sample underlying figure 4.13, the debt-to-GDP ratio rose in 24 and fell in 22.
21. These debt-to-GDP ratios do not accurately reflect the debt burdens faced by low-income developing countries relative to the other groups in figure 4.13, since the low-income countries tend to have a larger share of their debt in concessional terms. The focus here, however, is on *changes* in levels of debt over time within each group of countries.
22. For example, the expansionary fiscal stance that Argentina followed during the 1995–97 boom left the authorities virtually no room to adjust to the global real and financial slowdown after the Russian crisis of 1998 and to the real appreciation of the peso under the hard dollar peg; see Perry and Servén (2003). On the Russian case, see Kharas and Pinto (2001). For Ecuador, see Montiel (2002).
23. In some countries, realization of other contingent liabilities, as well as recognition of hidden ones, were also significant sources of debt accumulation. Argentina is a good example; see Mussa (2002).
24. However, Bordo et al. (2001) find that the output cost of banking crises did not rise significantly over the 1990s.
25. See Halac and Schmukler (2003) for a detailed discussion.
26. This is empirically confirmed by Calderón, Duncan, and Schmidt-Hebbel (2003). The scope for independent monetary policy can also be severely limited by the impact of changes in monetary stance on the cost of public debt through the associated changes in the nominal exchange rate and interest rates.
27. The bias is amply documented in both industrial and developing countries; see Easterly (1999). Many industrial countries have engaged in similar practices, particularly in the run-up to the European Monetary Union; see Easterly and Servén (2003).
28. Perhaps the most dramatic example of this problem is the failure of the South African government to address the country's alarming rate of HIV infection more aggressively, an outcome that some critics have blamed on fears of budgetary costs. This situation may not only have undermined the country's long-term growth through a variety of possible channels; it has weakened support for the government's pursuit of macroeconomic stability as well. Similarly, Latin American countries' timidity in addressing poverty problems, partly driven by fiscal stringency, contributed to the failure of income distribution to improve in the region during the 1990s. Combined with disappointing growth performance, some believe this outcome to have weakened popular support in Latin America for the reform agenda of the past decade.
29. See Buiter (1990, chapter 5); Easterly and Servén (2003); and Blanchard and Giavazzi (2003). A recent review of fiscal adjustment episodes (IMF 2003a) also concludes that in many cases the cuts in public investment were based on overoptimistic private investment forecasts and turned out to be excessive.
30. These estimates are reported in Talvi and Vegh (2000) and Lane (2003). They are broadly consistent with those displayed in figure 4.17. Public consumption, rather

- than the primary deficit, is used as the measure because public consumption data are available for a much larger sample.
31. The expansionary fiscal stance adopted by the Argentine authorities during the boom of 1995–97 forced them to engage in a self-destructive contraction in the downswing, helping precipitate the macroeconomic collapse of 2001–02. See, for example, Mussa (2002) and Perry and Servén (2003).
 32. Most empirical studies conclude that legal central bank independence is not significantly associated with lower inflation across developing countries (Cukierman, Webb, and Neyapti 1992; Campillo and Miron 1997). The likely reason is that there are substantial deviations between the letter of the law and its application. As an exception, however, Cukierman, Miller, and Neyapti (2001) find a significant negative effect of legal central bank independence on inflation in transition economies with a sufficiently high degree of economic liberalization. Gutiérrez (2003) suggests that constitutional sanction of the independence of the central bank, as well as a clear primacy of inflation among its stated objectives, may provide a better measure of its anti-inflationary effectiveness.
 33. Long-serving central bank governors may be subservient to finance ministers who place a high premium on the financing of fiscal deficits, and even independent central bank governors need not be firmly committed to price stability. Indeed, the cross-country empirical association between central bank governor turnover and inflation performance is not robust: the relation is negative only when a few high-inflation observations are included in the samples; see de Haan and Koi (2000). This might reflect reverse causality from high inflation to turnover rather than the other way around.
 34. Perceptions of nominal instability are not the only factor behind financial dollarization. The degree of *real* dollarization, and the perceived stability of the real exchange rate, also matter, as do financial system regulations and the availability of other assets sheltering investors from nominal instability (such as instruments indexed to domestic inflation, as in Chile, or short-term interest rates, as in Brazil). For discussion, see de la Torre and Schmukler (2003); Ize and Levy-Yeyati (1998); and IMF (2002b). Thus the interpretation in the text should be taken as suggestive rather than conclusive.
 35. On the trends in dollarization, see also IMF (2002b) and Reinhart, Rogoff, and Savastano (2003).
 36. For example, the upward drift in interest rates likely reflects also the liberalization of financial systems in many developing countries over the 1990s.
 37. Schmukler and Servén (2002).
 38. Frankel et al. (2001).
 39. A flight out of intermediate regimes was documented by Fischer (2001), for example. But whether it in fact took place has been disputed, particularly because alternative exchange regime classifications tend to provide sharply conflicting verdicts on regime trends. See Mason (2001) and Frankel and Wei (2004) for further discussion.
 40. Indeed, in the wake of the crises of the 1990s the IMF has redefined its core competencies to include fiscal, monetary, exchange rate, and *financial sector* policies.
 41. The increasing incidence of banking crises is also documented by Bordo et al. (2001).
 42. Kaminsky and Reinhart (1999).
 43. In accordance with this, the recent analytical literature on crises continues to stress weak fundamentals as a prerequisite for the occurrence of crises, but emphasizes the key role of ingredients such as self-fulfilling expectations and multiple equilibria in triggering them. See Chari and Kehoe (2003) for a recent example. These views assign an increasingly important role to financial system imperfections in full-blown balance of payments crises; see for example Krugman (1999).
 44. The Russian crisis also turned out not to be very severe, but probably for exogenous reasons (that is, the sharp recovery in world oil prices). More generally, there is evidence that twin crises are usually much more damaging to output than are standard banking-only or currency-only crises; see Bordo et al. (2001).
 45. Of course, in the short run the objectives of macro-stability and growth may conflict with each other, as stabilization measures often entail an output cost over the near term. But the growth disappointment refers to the performance over the entire 1990s.
 46. Perry (2003).
 47. See Wyplosz (2002) for details of this proposal.
 48. See Sanguinetti and Tommasi (2003) for an analytical appraisal of alternative institutional arrangements. Burki, Perry, and Dillinger (1999) review the international experience with various institutional arrangements in fiscally decentralized systems.
 49. Stein, Talvi, and Gristani (1998); Aalt and Lassen (2003).
 50. A recent study by the IMF's Independent Evaluation Unit (IMF 2003b) suggests that the problem is more widespread. The study finds, in particular, that in "capital account crisis" cases what appear in retrospect to have been cyclically appropriate fiscal expansions were not undertaken in part out of fear of adverse effects on market confidence.
 51. Countries' misguided attempts to ride the wave of short-term capital have also played a major role in some crisis episodes. In the words of Larry Summers, referring to the role of Mexico's Tesobonos on the eve of the Tequila crisis: "...the situation was not one of an inno-

[listed in Refs as two versions of the same paper—2004 and a later version, “forthcoming in 2004”; please update]

- cent country somehow overwhelmed by a flood of capital from the herd of speculators, but rather a situation of countries that, for domestic policy reasons, made very, very active efforts to dine with the devil of speculators—and ended on the menu.” In *Leading Policy Makers Speak from Experience* (World Bank 2005b), online at <http://info.worldbank.org/etools/bspan/PresentationView.asp?PID=1015&EID=328>.
52. The most comprehensive empirical study is that of Edison et al. (2002), who fail to find robust evidence of a significant growth impact. Prasad et al. (2003) argue that there may be “threshold effects”: countries with sound policies and institutions are more likely to derive a growth benefit from financial integration.
 53. Kose, Prasad, and Terrones (2003).
 54. These runs played a key role in the East Asian crisis; see for example Rodrik and Velasco (1999). Mismatches may reflect not only an inadequate borrowing strategy but also the reluctance of investors to lend long term in the face of a macro-financial framework they deem suspect.
 55. The reason is that a uniform reserve requirement is more onerous for short-term transactions than for the rest. Montiel and Reinhart (1999) review the cross-country evidence on the effectiveness of inflow restrictions.
 56. In the Chilean case, Forbes (2004) argues that these costs were substantial. Johnson and Mitton (2002) find that in Malaysia capital controls served to protect cronyism.

