Part ONE

Latin America and the Caribbean in 1996: Adjusting to Reform
INTRODUCTION

Latin America staged a recovery in 1996 from the economic and financial turbulence that had affected much of the region during the previous year. The region's rate of economic growth rose to 3.6 percent from 1 percent in 1995, a recovery primarily propelled by relatively high rates of growth in Argentina and Mexico, the two economies most affected by the crisis. In other countries of the region, however, growth generally slowed somewhat in 1996. Preliminary indications are that prospects for growth continue to improve during 1997, with a probable growth rate of roughly 4 to 4.5 percent.

Inflation remained relatively subdued in 1996, with the median rate barely above single digits. Particularly notable was the ability of Mexico to bring inflation under control, as well as the continued success of the Brazilian stabilization, which has brought inflation down from well over 1,000 percent in 1994 to 11 percent in 1996.

Fiscal policy remained restrained in most countries of the region, with the (population-weighted) average fiscal deficit at about 1.5 percent of GDP. In several countries, however, large fiscal deficits complicated macroeconomic policy management and posed potential threats to macroeconomic and financial stability over the medium term.

Taking the region as a whole, the recovery of investment that has been a hallmark of the 1990s in Latin America continued during 1996, when investment grew by 5.6 percent. However, this increase is due to a large extent to major expansions of investment in Argentina and Mexico from very depressed levels of 1995. Investment in the remainder of the region was disappointing, rising only 2 percent in Brazil, and declining, on average, in the rest of the countries. Investment fell significantly in the Andean subregion as well as in Central America and the Caribbean.

More encouraging was the performance of exports, which grew robustly in most of the region. With the major exception of Brazil, where real exports of goods and services stagnated for the third year, strong export growth was widespread, with real exports growing at or near double-digit rates in all of Latin America's major subregions.

Consumption grew more slowly than income in 1996, signifying that saving rates in the region continue
to rise after the sharp decline experienced in the first years of the 1990s. Brazil, however, is a major outlier. Still in the early stages of its inflation stabilization, the country experienced a major decline in its rate of saving during 1995 and 1996. In other countries of the region, however, the average rate of saving has risen from a low of 15.3 percent in 1993 to 18.1 percent in 1996, returning to the levels of the late 1980s. Still, with only a few exceptions, rates of saving in the region remain below the levels reached in the 1970s.

International capital flows returned to the region with enthusiasm. At $63 billion, net capital flows averaged about 3.5 percent of GDP and roughly matched the rate of 1993, despite substantially reduced rates of net borrowing by Argentina and Mexico, which had been the major borrowers during the early 1990s. In the other countries of the region, net capital flows reached 4.5 percent of GDP, driven by large inflows to Bolivia, Brazil, Colombia, Chile and several of the smaller economies, including a notable surge of capital flows to Jamaica, where they reached nearly 10 percent of GDP.

Indicators of the perceived creditworthiness of Latin American borrowers, such as Brady bond prices, showed sharp improvements during 1996. Several countries used the favorable conditions in international financial markets to access those markets for the first time, or to restructure their international debts to obtain better financing terms and an improved debt profile.

The capital inflows were used to finance current account deficits that averaged just over 2 percent of the region’s GDP, roughly the same as in 1995, and to finance reserve accumulation of roughly 1.5 percent. However, current account deficits increased to potentially problematic levels in a number of countries.

The modest rate of economic growth in 1996 was insufficient to secure a reduction in the region’s unemployment rate, which increased to about 8 percent. The (population-weighted) average rate of unemployment in the region is now approaching the level reached at its recent peak of 1984, and has increased by nearly two percentage points since 1990.

However, as we will discuss in more detail below, this trend is somewhat exaggerated by the extraordinary experience of Argentina, where unemployment has risen from the low single digits in the 1970s to nearly 18 percent in 1996. Unemployment has increased and remains a grave problem in most of the region, but in countries other than Argentina the increase since 1990 has been much smaller, and the rate of unemployment remains substantially below that recorded in the mid-1980s.
Perhaps most striking about economic developments in 1996 is the very substantial diversity of experience among the economies of the region. Argentina and Mexico are in the midst of a robust recovery from the economic crisis of 1995. Brazil finds itself managing an expansion of domestic demand that threatens to generate unsustainable external imbalances, while in many other countries, including in particular several in the Andean region and in Central America and the Caribbean, the year saw relatively slow economic growth, disappointing investment performance, and in some cases the appearance of economic and financial tensions.

Some of the divergences are explained by differences in the external environment faced by the various countries, and others by important differences in policy stance. Economic outcomes in most countries were also significantly influenced by the process of economic adjustment to the stabilization and reform programs of the 1990s. As was discussed in last year’s report on Economic and Social Progress in Latin America, the adjustment to such reform programs has tended to involve a fairly well-defined process that includes an initial expansion in private spending and financial intermediation, a period of deceleration as the economy is forced to cope with fiscal, financial and external vulnerabilities generated by the preceding expansion, and a period of correction that sometimes, but not always, involves a crisis. Finally, if macroeconomic stability is not lost or is rapidly restored after the correction, the economy enters a post-correction period. What distinguishes this period from the ones that preceded it is neither the depth or quality of the reforms that have been implemented, nor the need for further reforms, but simply the fact that the short-term, cyclical dynamics associated with adjustment to the stabilization and reform program gradually cease to be the dominant influence over economic activity.1

EXTERNAL ENVIRONMENT

World Economic Activity and Financial Markets

The external environment remained relatively favorable during 1996. The economically advanced economies grew about 2.5 percent in 1996, the same rate as in 1995.2 Growth accelerated somewhat in the United States and Japan, and declined in Europe and the other advanced economies. Growth in the developing economies increased from the 6 percent recorded during 1995 to 6.5 percent in 1996.

Despite this continuation of moderate economic growth, there was a slowdown in the growth of world trade volumes. Real imports of the advanced economies grew by only 5.3 percent in 1996, significantly lower than the 8.7 percent growth rate recorded during 1995. Real import demand of the world’s developing economies also grew more slowly in 1996.

International Monetary Fund projections suggest that the climate for international trade will improve somewhat in 1997, with the rate of economic activity expected to accelerate modestly in the industrial economies, and growth in the volume of world trade to increase.

International financial markets provided a favorable climate for developing economies. Short-term interest rates fell during 1996 in all major currency areas, and capital flows from industrial to developing economies increased. In the first quarter of 1997, U.S. interest rates rose slightly, as the monetary authorities acted to ensure that robust economic growth would not create inflationary pressures. But large increases in U.S. interest rates are not expected; for 1997 as a whole, IMF projections are that short-term interest rates will rise by about 40 basis points in the United States and 30 basis points in Japan, while remaining roughly unchanged in Europe.

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1 This process is described in more detail in Box 1, and at much more length in the 1996 Report on Economic and Social Development in Latin America.

2 The International Monetary Fund now classifies a number of newly industrialized economies in Asia (Hong Kong, Korea, Singapore and Taiwan), as well as Israel, together with the industrial economies, reflecting the advanced stage of economic development that these countries have reached.
Box 1. Tendencies in the Adjustment to Stabilization and Reform in Latin America

The 1996 Report on Economic and Social Progress in Latin America contained an extended account of the stabilization and economic reform programs of the 1990s and an analysis of their short-term macroeconomic consequences. Those consequences remain an important influence on macroeconomic outcomes and policy dilemmas in 1996 and 1997, so we provide here a brief summary of the stylized facts.

While no two reform programs have been identical, a pattern is frequently, though not universally, observed. This can be divided into four key periods: (i) an initial period of economic expansion, followed by (ii) a period of deceleration, during which there has frequently appeared economic and financial stress, which in turn often requires (iii) a correction or crisis, which is then followed by (iv) a post-correction period, when the stabilization and reform package gradually ceases to be the dominant influence on macroeconomic developments.

Post-reform expansion: Stabilization and reform are generally followed by recovery of economic activity. The recovery is fostered by the improved confidence that typically follows an inflation stabilization, and by elements of the reform programs such as liberalization of trade and financial markets, which promote a short-term increase in private spending. The strong response of consumption and investment spending to the economic reform is illustrated in the first figure above, which compares the growth rates of domestic production and spending with those of a normal year.

This expansion in private spending is typically accompanied and magnified by a boom in domestic bank lending, which is itself fostered by the remonetization of the economy that follows inflation stabilization. Such lending booms often reduce the quality of bank portfolios; thus, financial vulnerabilities tend to grow as the boom proceeds. The private spending boom also generates a transitory public revenue boom that may mask an underlying fiscal disequilibrium. It is also typically accompanied by substantial current account deficits that render the economy vulnerable to a loss of confidence.

Deceleration: Eventually, the growth in private spending and bank lending slow to more sustainable rates. As bank credit becomes more scarce, previously hidden flaws in bank balance sheets may become more apparent, reducing confidence in the domestic financial system. Scarcer credit and concerns about the viability of the monetary and financial system contribute to higher interest rates, aggravating the difficulties faced by the financial system. The slowdown in private spending reduces the public revenue boom, making latent fiscal imbalances visible. And international investors, already beginning to contemplate the prospect of a potentially painful external adjustment, are increasingly asked to finance large external deficits. These circumstances make the economy vulnerable to domestic or foreign shocks, or to a loss of confidence.

Correction: The economic and financial imbalances that develop during the recovery phase require correction. This correction has frequently, though not always, been traumatic, with domestic output and spending falling sharply, generally in the context of a major contraction of bank credit and an acceleration of inflation. The experiences of Argentina and Mexico in 1995, Venezuela in 1994-95, and Chile in 1982-83 illustrate in extreme form the crisis that can emerge when the vulnerabilities that develop during the boom are large.

Post-correction: What comes next depends in large part upon whether authorities can rapidly contain the macroeconomic instability that may be generated during the correction. If this is not achieved, as in Argentina and Uruguay in the early 1980s and Venezuela in 1993-94, the country faces the task of restarting the process of stabilization. If macroeconomic stability is preserved or rapidly reestablished, as in Chile and Bolivia in the 1980s, and Argentina and Mexico in the 1990s, the economy can look forward to a period of renewed recovery, during which the short-term, cyclical dynamics associated with reform become of decreasing significance.
Increased Capital Flows

Capital flows to Latin America increased to $63 billion in 1996, roughly 3.5 percent of the region’s GDP. In dollar terms, these inflows roughly matched those received by the region during the previous peak year of 1993. There are some important differences, however, in the composition of the flows. Unlike in 1993, when inflows to Argentina and Mexico accounted for nearly two-thirds of the total, these two countries received less than 20 percent of the total in 1996. Brazil became the dominant destination for international capital flows to Latin America in 1996, accounting for about 60 percent of the total. In other countries of the region, capital inflows averaged nearly 5 percent of GDP.

There was an equally important change in the composition of capital flows between 1995 and 1996. During 1995, over half the total flows to Latin America were from official sources, mainly associated with the international response to the crises in Argentina and Mexico, while private capital flows fell sharply. In 1996, on the other hand, official flows to the region were negative, as Mexico repaid most of the official support that it had received in 1995, while private capital flows increased dramatically.

The very large flows of capital to Latin America and other regions of the world are attributable in large part to financial conditions in the industrial economies. But they also reflect a substantial improvement in market perceptions of the creditworthiness of Latin American borrowers. This improvement is visible in the Brady-bond interest rate spread over U.S. Treasury bonds.

At the end of 1995, when signs of recovery from the Tequila crisis were only beginning to emerge, investors were imposing spreads of 9.5 to 15.5 percent as compensation for the country risk embedded in Latin American Brady bonds. By the end of 1996, this premium had declined to between 5.25 and 8.25 percent, with most countries registering significant further declines in the first quarter of 1997.

Several countries took advantage of the favorable conditions in international financial markets to restructure their international obligations to secure more advantageous financial terms and an improved debt profile. A notable feature of the borrowing programs of many countries in the region was the lengthening of debt maturity that they were able to accomplish. Several countries, including Argentina, Colombia and Mexico, successfully issued debt of 20 and 30-year maturity in a number of major currencies. In one particularly innovative program, Mexico issued 30-year bonds and used the proceeds to buy back outstanding Brady bonds, managing both to lower debt servicing costs and to extend the effective maturity profile. Similarly, in mid-1997 Brazil completed a $3 billion international bond issue, with a maturity of 30 years, and used the proceeds to buy back outstanding Brady bonds.

The favorable conditions in international financial markets also permitted some countries to enter for the first time—or reenter after long absences—the international bond markets. Ecuador and Panama have recently completed substantial issues, Guatemala is in the process of completing a $150 million issue, and a number of countries are expected to enter the markets in the relatively near future.

Terms of Trade

During 1996, the terms of trade were roughly unchanged in Latin America as a whole. There were important regional differences, however. Argentina and the Andean economies saw improvements in their terms of trade, largely driven by higher prices for petroleum and some agricultural products.

Most Central American and Caribbean economies, on the other hand, suffered reductions in their terms of trade, largely as a result of lower world prices for coffee, as the boom of 1994 and 1995 began to unwind, and higher petroleum prices.

Guyana, Venezuela, Jamaica, Ecuador and Argentina experienced substantial improvements in their terms of trade. Chile experienced the most significant deterioration, due to the adverse effects of a decline in copper.
prices of more than 20 percent. Hardest hit in Central America and the Caribbean were Trinidad and Tobago, Honduras, the Dominican Republic, Nicaragua, Haiti, Panama and Guatemala, all of which experienced declines in the terms of trade of more than 5 percent during 1996.

**ECONOMIC GROWTH AND EMPLOYMENT**

The year 1996 was one of modest economic recovery for Latin America, during which the (population-weighted) average rate of real GDP growth rose to 3.5 percent from less than 2 percent in 1995. The recovery was primarily led by growth in exports, which rose 8.3 percent, and investment, which rose by 5.6 percent. The increase in consumption fell short of the growth rate of real output, indicating a modest increase in the region’s low rate of saving.

Though a substantial improvement over 1995, economic growth was modest throughout the region. Only Argentina, Barbados, Chile, Mexico, Nicaragua and Uruguay managed growth rates higher than 4 percent in 1996, while three countries, Costa Rica, Jamaica and Venezuela, experienced economic contractions during the year.

The robust growth of exports was quite generalized. With the major exception of Brazil, where exports stagnated for the third consecutive year, all major subregions...
of Latin America experienced increases in real exports at or near double-digit rates.

For the region as a whole, the relatively robust growth in domestic investment reestablished the recovery of investment that had been a hallmark of the recovery of the 1990s. As Figure 8 shows, the shares of real investment in GDP collapsed in the early 1980s, and only began to recover during the 1990s. Since then, the investment ratio has risen from 16.5 percent of GDP in 1990 to 19.2 percent in 1996. If we exclude Brazil, where the recovery of investment had to await the 1994 inflation stabilization, the investment ratio has risen to over 20 percent, which is still below the levels reached during the late 1970s, but comparable with the levels of the 1960s.

However, the growth of investment during 1996 was insufficient to raise it to the share of GDP recorded during the precrisis year 1994. Furthermore, investment growth was not widespread, and is largely attributable to robust recoveries of investment in Argentina and Mexico from the depressed levels of 1995.

During 1996, investment grew by only 2 percent in Brazil, and declined by an average of 4.5 percent in the countries of the Andean region and by 2.6 percent in Central America and the Caribbean. Real investment grew by more than 5 percent in only seven countries, and by more than 10 percent in only two, while it fell in 11 countries.

The recovery of investment apparent at the aggregate level thus masks considerable differences across countries of the region as well as weakness in a substantial number of countries.

Adjustment to Stabilization and Reform

Economic performances in the region were in important respects uneven, with Argentina and Mexico staging strong economic recoveries from the 1995 crisis. Brazilian policymakers acted to contain an expansion in domestic demand that threatened to generate excessive external imbalances, while a number of other countries experienced a sharp deceleration in the rate of economic growth and investment.

One potential explanation for these varying performances is differing external circumstances. For example, the relatively sluggish economy and poor investment performance in Central America and the Caribbean may have something to do with the adverse terms of trade shock that the region suffered. In the past, such shocks have tended to be accompanied by a period of lower growth in GDP and investment.

This cannot, however, be the whole story; in 1996, terms of trade shocks do not provide much help in accounting for differences in economic growth and investment in the countries of Latin America. For example, the relatively sluggish economy and poor investment performance in Central America and the Caribbean may have something to do with the adverse terms of trade shock that the region suffered. In the past, such shocks have tended to be accompanied by a period of lower growth in GDP and investment.

This cannot, however, be the whole story; in 1996, terms of trade shocks do not provide much help in accounting for differences in economic growth and investment in the countries of Latin America. For example, the terms of trade improved for the Andean countries, but growth and investment performance in that subregion was even weaker than in Central America and the Caribbean. A number of Central American countries, including Nicaragua and Honduras, suffered adverse shocks to the terms of trade without experiencing a major economic slowdown or decline in investment. More generally, the correlation between terms of trade changes and output growth was, if anything, negative during 1996.³

³ The correlation between terms of trade shocks and investment was also negative, but it was not statistically significant.
This does not mean that adverse terms of trade shocks were not painful for the economies concerned, but instead that some additional factor was important. A key factor in 1996, as discussed above, was the progress various countries made in adjusting to the stabilization and reform programs initiated earlier in the decade. Table 6 documents that progress. During the early years of the decade, a large number of countries, accounting for most of the region’s population and income, were passing through the initial expansion phase of the process. By 1994, three countries, including Argentina and Mexico, were experiencing the deceleration phase, as the fiscal and financial vulnerabilities associated with the adjustment process began to make themselves felt. In 1995, four countries, most notably Argentina and Mexico, passed through the correction or crisis phase of the process. During 1996, most countries entered the post-correction phase, while a number of other countries began to experience significant economic and financial stress associated with the preceding years of expansion.

Thus, in both 1995 and 1996 fewer countries were in the initial expansion phase of the adjustment process. In 1996, for the first time in the decade, more countries were in the deceleration or correction phases than were in the recovery phase, which helps explain the slowdown in overall economic activity.

This very stylized account of the adjustment process does not, of course, provide a complete explanation for economic developments during 1996. Table 7 presents average growth rates of real GDP, investment and consumption for countries in different phases of the adjustment process during 1995 and 1996. In both years the patterns are similar to the stylized account of the adjustment process that was sketched out above; growth and spending are high during the recovery phase, slow dramatically during the stress and correction phase, and recover during the post-correction phase. However, in 1996 investment growth slowed by comparison with 1995 in each phase of the process except post-correction. This means that something other than the stylized adjustment process is needed to explain the growth and investment performance of countries passing through the other phases of the cycle. This could be either unrelated shocks or a somewhat different policy response to the macroeconomic dynamics that tend to be triggered by stabilization and reform. We shall argue that the latter were important, particularly in Brazil and Peru.

One way to summarize developments during 1996 is that Latin American growth and investment recovered mainly because two large economies, Argentina and Mexico, passed through the crisis phase and embarked on the post-correction phase of the adjustment process, when growth and investment typically recover. Growth in other countries slowed in part because they were moving from the recovery to the stress or correction phase.

But other factors were, of course, at work during the year. Such country-specific factors are required, in particular, to explain the relatively weak performance of investment in countries that were in the recovery and the stress phases of the adjustment process.
Mexico: In 1996, Mexico overcame the economic and financial turbulence that afflicted the country in 1995 and began a strong recovery, while working to overcome the fiscal and financial imbalances that emerged during the crisis. Real GDP increased just over 5 percent, making up much though not all of the 6 percent decline in 1995. Unemployment declined over the course of the year, although it remained above the precrisis level.

With both fiscal and monetary policy oriented toward reestablishment of macroeconomic stability, inflation fell sharply from more than 50 percent in 1995 to less than 30 percent in 1996. The growth in domestic demand was led by exports, which grew nearly 20 percent in real terms, and investment, where growth of nearly 30 percent was impressive but still insufficient to bring real investment to the prerecovery level. Real consumption, on the other hand, grew less than 3 percent, implying an increase in national saving for the second consecutive year. The increase in domestic saving ensured that the current account of the balance of payments remained near balance in 1996, despite the strong recovery of domestic investment.

Securing a recovery of the domestic banking system required a substantial policy effort. The authorities intervened in eight banks and initiated a number of programs of fiscal support to the banking system to support the restructuring of bank portfolios. In addition, strengthening the legal and regulatory framework laid the groundwork for a stronger financial system. Reforms included increased capital requirements for market risk and the adoption of international accounting standards for banks.

While making important headway in reestablishing macroeconomic and financial stability, the authorities also acted to deepen the country’s structural reforms and strengthen macroeconomic policy management. Over the course of the year the authorities took advantage of favorable conditions in international financial markets to restructure the country’s international debt, retiring most of the relatively expensive short-term debt associated with the international response to the 1995 crisis and replacing it with less expensive and much longer-term debt. Some progress was also made in privatization, including an opening of the petrochemical sector to private participation. And a major pension reform was enacted, which replaces the pay-as-you-go, defined benefit program with a system of individually capitalized retirement accounts. The new system is expected to come into force in mid-1997, with about 10 million workers contributing to the new accounts. When fully operational, the new system should prove an important positive force for the deepening of domestic capital markets.

Prospects for Mexico over the near term are promising. Inflation has continued to moderate during 1997, and could fall to about 20 percent for the year as a whole. Growth is expected to remain strong. In contrast with the early 1990s, economic growth during the past two years has been underpinned by very strong export growth as well as a strong recovery of investment from the steep decline of 1995, while consumption has grown more modestly, national savings have risen, and households and businesses have gradually become less overextended to the domestic banking system. Longer-term prospects will depend in substantial part on the underlying policy environment. As Part II of this Report suggests, despite the deep reforms that Mexico has made over the past decade, there remain areas of policy in which deeper reforms are possible.

Southern Cone: This subregion contains both the first and one of the most recent of the region’s reforming economies. The structural policies now in place in Chile were largely established under the major stabilization and reform program of the late 1970s and early 1980s. That reform program led to a spectacular boom that ended in an equally spectacular crisis in 1981–82. Chile is thus one of the very few countries on the continent more than a decade into the post-correction period, and current economic developments there are largely unrelated to the short-term cyclical responses to stabilization and reform that have affected much of the region. Brazil, on the oth-
er hand, is one of the most recent economies to undertake stabilization, though some important structural reforms predate the mid-1994 stabilization, and the country is in the relatively early stages of adjustment. The Brazilian experience differs in some interesting respects from the typical expansion, highlighting the impact of different policy responses on the nature of economic outcomes. Argentina, like Mexico, is in an intermediate position, having experienced a boom and undergone a correction, from which the country is now emerging.

Argentina began a recovery during the year from the Tequila crisis of 1995. Real GDP grew roughly 4.5 percent, following a decline of approximately the same magnitude in 1995. Recovery was led by investment and exports, which grew in real terms by 7 percent and 14 percent, respectively, while real consumption grew nearly 5 percent. Recovery was also supported by renewed confidence in the Argentine financial system, as reflected in a substantial increase in demand for domestic bank deposits, which eliminated the liquidity crisis of the previous year and allowed a reactivation of domestic credit.

The major challenges that face Argentina are to reduce high levels of unemployment and attain a more solid fiscal balance. The rate of unemployment rose steadily during the 1990s, even while economic growth was rapid, and it reached 18 percent of the labor force in 1996. This is to a substantial extent a reflection of rapid growth in the workforce, rather than reductions in unemployment, but it nonetheless poses a major challenge for the country. The policy response to this challenge in 1996 was a significant reform of labor laws, which would have reformed the system of severance payments and the collective bargaining process, in hopes of rendering the labor market more flexible and promoting employment. These reforms have not, however, been approved by the Congress.

Despite reasonably robust growth and policy measures designed to raise fiscal revenue and reduce spend-
The balance of Argentina’s nonfinancial public sector deteriorated in 1996. Though the existing deficit is a relatively small share of GDP, it renders public finances vulnerable to an economic downturn or adverse shock, as is discussed in more detail in Part III of this Report.

Brazil’s Real Plan of mid-1994 brought inflation down from roughly 5,000 percent per year in the first half of 1994 to 26 percent in 1995 and 11 percent in 1996, which triggered an immediate and powerful spending boom. Real consumption grew 9 percent in 1994 and nearly 12 percent in 1995, while investment grew by roughly 13 percent in both years.

Two policy responses have made the ongoing Brazilian recovery somewhat different from the typical one. First, the inflation stabilization was associated with a substantial fiscal expansion, which the Brazilian authorities have yet to address in full. This has amplified the spending boom that would normally result from private responses to the stabilization, while the rapidly growing public debt tends to crowd out private borrowers. Second, to manage this spending boom the authorities have implemented restrictive credit policies, which has thus far prevented the bank lending boom that often emerges during the post-stabilization recovery, at the cost of very high real interest rates. Real deposit rates averaged about 20 percent in 1995 and remained in the double digits in 1996 and early 1997.

One result of these policies was a severe slowdown in the rate of investment growth in 1996. Investment rose only 2 percent, substantially below the rate that is typical for the initial expansion phase of adjustment. This is one reason why investment growth of countries in this phase of adjustment was atypically low during 1996.

Given the fiscal rigidities that are imposed by the Brazilian Constitution, and the time and uncertainties involved in attempts to change them, it is hard to think of an alternative to the course that the Brazilian authorities are now pursuing. By preventing a bank lending boom, the strategy may forestall development of major weaknesses in the financial system, though the long period of very high real interest rates poses dangers of its own for the banks. But the fiscal vulnerabilities associated with the need to finance large deficits and roll over a large public debt are substantial and rapidly growing.

Economic growth in Chile, at more than 7 percent, was the most rapid in the region. This occurred despite a 14 percent decline in the terms of trade, the result of a large drop in copper prices, an increase in petroleum prices, and a fairly contractionary monetary policy, which brought inflation down to roughly 7 percent, its lowest rate in 35 years. Demand growth was to some extent export-led, but otherwise relatively balanced; in real terms exports grew roughly 10.9 percent, investment by 7.4 percent, and consumption by 8.1 percent. Real wages rose by roughly 4.5 percent, and unemployment fell over the course of the year.

Economic growth in Chile has been driven by high rates of saving and investment, which have risen from extremely low levels during the crisis of the early 1980s to roughly 30 percent of GDP in the 1990s. Prospects for the near term appear good. Inflation is expected to fall somewhat further in 1997, while the economy is expected to grow 5 to 6 percent. A recovery of copper prices is expected to reduce the current account deficit that appeared in 1996, and the government is once again expected to run a fiscal surplus, as it has for each year of the past decade.

Andean economies: Economic developments in most countries of the Andean region were heavily influenced by their continuing or, as in the case of Venezuela, renewed engagement with the process of stabilization and reform. In the middle of 1996, Venezuela entered the adoption phase of the process, initiating a stabilization and reform program that picks up the pieces from the 1993 collapse of a previous stabilization program.4 Ecuador and Colombia spent most of 1996 coping with many of the usual features of the stress and correction phases of the adjustment process. Peru, similar in some respects to Brazil, attempted to manage the spending boom associated with the recovery phase. Only in Bolivia, where stabilization took place in the mid-1980s, were economic developments largely unaffected by macroeconomic forces related to stabilization and reform.

Venezuela entered the adoption phase of the adjustment process in April 1996, when it reinitiated a stabilization of the country’s 1989 program, which collapsed at the end of 1994. The new stabilization program, which involved abolishing exchange controls and making an associated maxi-devaluation, began in a burst of inflation that totaled approximately 100 percent in 1996. However, after the initial surge, inflation began to decline and is expected to subside to roughly 40 percent in 1997.

The very substantial overshooting of the exchange rate that initiated the reform program has importantly

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4 The Venezuelan reform program, Agenda Venezuela, also incorporates important structural reforms, most notably a deep reform of the social security system and the labor code, and a privatization program.
conditioned the economic response to the stabilization program. The depreciation generated an enormous transfer of wealth from the nonbank private sector to the banking system and the government, as the real value of bolivar-denominated liabilities collapsed. This largely resolved the crisis of banks that had not been intervened in by mid-1996, while at the same time reducing the purchasing power of domestic consumers. The real depreciation also had a favorable impact on the fiscal accounts.

Finally, confidence that the currency would stabilize at the new, more depreciated level led to a reversal of the previous years’ capital flight. Combined with a large favorable shock to oil prices, this caused the real exchange rate to appreciate sharply during the second half of the year and the first months of 1997, as domestic inflation greatly exceeded the nominal depreciation of the bolivar. This appreciation was associated with highly negative real interest rates, which had the effect of eroding the real value of bolivar liabilities of the crisis-ridden banking system and the public sector.

Recovery in private demand has been somewhat slow, perhaps because the transfer of wealth from the nonfinancial private sector associated with the 1996 devaluation has depressed consumption demand. It seems likely, as well, that the much anticipated reform of Venezuela’s labor legislation is creating uncertainty among the business sector and contributing to a reluctance to hire new workers until the new regime is established. (The new labor law was approved by Congress in July 1997.) However, when the increase in domestic demand arrives, the banking system will be well placed to magnify a spending boom with another domestic lending boom. The challenge for the authorities in coming years will be to manage the recovery to minimize the financial and fiscal vulnerabilities likely to emerge in the absence of a forward-looking policy stance.

Colombia and Ecuador display many characteristics associated with the stress and correction phases of the adjustment process. In both cases, the early 1990s witnessed inflation stabilization—mild in Colombia and more substantial in Ecuador—and significant structural reforms. Both economies monetized and a bank lending boom resulted, again relatively mild in the case of Colombia and more pronounced in Ecuador. The resulting private spending booms were characterized in particular by rapid growth in domestic investment, especially in Colombia, where there was investment spending to develop new oil fields.

Both economies showed signs of stress in 1996. As the bank lending boom slowed, real interest rates rose dramatically, curtailing investment demand. And as the economies slowed, substantial fiscal imbalances emerged that required the authorities to make a fiscal correction just when private demand was weakening. The challenge for policymakers in 1997 is to manage this correction in a way that minimizes the likelihood of a major economic downturn.

In Peru, the problem is managing the boom in private demand that has been with the economy since 1993, when the country’s reform program brought inflation below 50 percent, compared with the quadruple-digit inflation rates of the late 1980s and early 1990s. The strong spending boom triggered by the stabilization and reforms generated an increase in the current account deficit that, in 1996, induced policymakers to tighten fiscal policy. This fiscal adjustment curtailed economic activity in the first part of the year, leading to sharply lower growth in real output and a decline in investment. Thus, as in Brazil, policy adjustments during 1996 interrupted the boom phase and led to much weaker investment than is typical of the early stage of adjustment to stabilization and reform.

This interruption in the recovery is likely to be short-lived, however. The economy displays few signs of stress and money demand continues to rise, capital flows remain high and there are, as yet, few signs of distress in the banking system, which continues to expand its lending to the private sector at a rapid rate. The challenge for Peru is to manage this recovery and prevent it from generating dangerous vulnerabilities. A potential concern is the very substantial boom in bank lending, which has the potential to destabilize the financial system and derail recovery.

In Bolivia, the economy grew 4 percent, driven by rapid growth in real investment (10.2 percent) and real exports (9.4 percent). Consumption grew 3.6 percent, implying a small increase in the country’s low rate of saving. Inflation fell to 8 percent in 1996, down from nearly 13 percent in 1995.

The country implemented important structural reforms during the year. A major pension reform law was approved that establishes privately managed, individually-capitalized accounts. The law also established Bono Solidaridad, a program that provides support to those 65 years and older and is financed by the shares of capitalized enterprises. The capitalization of the public petrochemicals company YPFB was completed, making Bolivia one of the few Latin American countries that has been able to privatize in this sector. The country also approved a law to improve land tenure and titling sys-
tens, a forestry law to rationalize use of forest resources, and a new hydrocarbons law and tax regime for the hydrocarbons sector. The decentralization of fiscal responsibilities to municipalities and prefectures continued, while the 1997 budget law established mechanisms to limit the indebtedness of decentralized and autonomous agencies. Bolivia is also being considered for additional debt relief under the Highly Indebted Poor Countries Initiative.

Central America and the Caribbean: These subregions were subjected to two important external shocks in 1996: the decline in world coffee prices as the coffee boom of 1994–95 began to unwind, and a loss of international competitiveness vis-à-vis Mexico, which resulted from that country’s recent sharp depreciation of the real exchange rate and its position in NAFTA. However, these shocks do not fully explain the subregion’s modest rate of growth or decline in investment. As we have noted, several countries of the subregion performed relatively well despite a decline in the terms of trade, and the converse is also true for some other economies. Indeed, in volume terms, export growth was actually strong in the subregion. Real exports of good and nonfactor services (as measured in the national income and product accounts) grew an average of 12 percent, and in only two economies (Belize and Suriname) did real exports grow less than 5 percent.

Thus, important though the competitiveness shocks may have been, another important reason for the weakness of many Central American and Caribbean economies during 1996 was the development of economic and financial stresses associated with adjustment to their stabilization and reform programs. Countries that suffered particularly large declines in real investment all displayed signs of economic and financial stress. We cannot examine each country of the subregion in detail, but instead explore some countries that are representative of the process.

In Jamaica, the inflation stabilization began in 1991, when inflation reached 80 percent. This was cut in half in 1992, and inflation continued to fall to its current level of roughly 15 percent. The inflation stabilization triggered a monetization of the economy, which helped to finance a domestic lending boom. This, in turn, supported an expansion of domestic spending that brought the country’s current account deficit of about 6.5 percent of GDP in 1995 and nearly 8 percent in 1996.

During 1996, the economy came under stress. Interest rates rose dramatically, placing pressure on already overextended banks and insurance companies. Some important financial institutions collapsed, and a costly financial crisis emerged. As a result of high real interest rates, costs of the financial crisis, the recession, and other fiscal developments, the Jamaican fiscal balance swung from a surplus of nearly 2 percent of GDP to a deficit of at least 8 percent. Dealing with this fiscal problem, and ensuring that the financial crisis does not intensify and aggravate the recession in the nonfinancial economy, will need to be high priorities for Jamaican policymakers.

In Costa Rica, the credit and spending boom took place during 1992–93, when investment growth averaged roughly 25 percent and consumption growth about 7 percent. This boom brought the current account deficit from 1.3 percent of GDP in 1991 to more than 8 percent in 1993. The spending boom was supported by large inflows of foreign direct investment and an expansion of credit to the private sector of about 25 percent per year. The public sector surplus remained near balance during these years, despite the favorable impact of the spending boom on public revenue. Public spending increased in tandem with the temporarily higher revenue.

Thus, when the spending boom ended in 1994, a large fiscal deficit emerged. Despite efforts to achieve fiscal consolidation, the public sector balance remains in deficit of about 5 percent per year, which has contributed to the higher real interest rates. This helps explain the country’s disappointing investment performance over the past three years.

The Dominican Republic brought down high inflation in 1991, and this stabilization was followed by a domestic spending boom fueled by a substantial increase in bank lending to the private sector that brought the current account deficit to roughly 8 percent of GDP in 1991 and 1992. A correction began in 1993, during which consumption demand fell and, somewhat later, investment demand began to grow less rapidly, until domestic spending fell into line with income. By 1996, the macroeconomic adjustment to the stabilization was largely complete, and the economy grew by more than 7 percent, with strong investment growth despite a substantial decline in the terms of trade.

The substantial variation across the region in economic performance during 1996 is thus largely, though not of course completely, explained by the progress that countries have been making through the adjustment process, and the policy responses that national authorities have made to the economic forces associated with that adjustment. This provides some basis to expect that the economic and financial stresses now being experienced by several countries of the region are the result of transi-
tory, cyclical phenomena that can be overcome. An optimis-tic note is provided by the experience of the six countries that appear by 1996 to have overcome these stresses. All of these countries experienced at least respectable growth accompanied (except in Uruguay) by robust investment growth.

**Increased National Saving**

During the first three years of the decade, national saving declined precipitously in Latin America, from roughly 20 percent of income in 1990 to a low of 16.5 percent in 1993. Since then, the average rate of saving has stayed roughly constant, rising slightly in 1997.

But the recent stability of the region's average rate of saving masks an important difference between the behavior of Brazil—where in the early stages of a major inflation stabilization consumption has recently boomed and saving fallen—and the rest of the region, which is generally further along in the stabilization process and has begun to see a recovery of saving.

As Figure 11 illustrates, the average rate of saving in Latin American countries other than Brazil rose from a low of 15.3 percent in 1993 to 18 percent in 1996, returning to levels of the late 1980s. This increase in national saving has been fairly widespread; between 1990 and 1996 most countries' rate of saving returned to or exceeded that recorded in 1990. Only in Haiti and Brazil is the saving rate now greatly below the 1990 level.

**Employment and Unemployment**

The modest rate of economic growth in 1996 was not sufficient to reduce the region's rate of unemployment, which rose slightly to just above 8 percent of the labor force (Figure 5).

The region's average unemployment rate has risen considerably during the 1990s, and now stands near its 1984 peak. However, this increase in the regional average is driven to a very large extent by the extraordinary experience of Argentina, where the unemployment rate has risen almost uninterruptedly from low single digits in the 1970s to nearly 18 percent today. In countries other than Argentina, unemployment increased in 1995 and 1996, but the increase was much more modest (about a percentage point), and the average stands well below previous peaks.

Unemployment rates differ widely across the region, partly for definitional and statistical reasons. In 1995 and 1996, the measured unemployment rate exceeded 10 percent in 10 countries. During 1996, unemployment increased in eight countries and declined in only two.

In most countries, the failure of the 1990s recovery to reduce unemployment appears primarily attributable to the recovery's relatively slow pace, rather than to special characteristics of the recovery itself, though the nature of the reforms has also been important in some countries. (Part II of this Report analyzes in more detail the impact of the region's reforms on unemployment.) As Figure 14 illustrates, countries that have managed more rapid rates of economic growth have tended to experi-

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5 We focus on national saving, rather than domestic saving, because our emphasis is on the resources available for internal financing of domestic investment, which is best measured by national saving.
ence declines in the rate of unemployment, with a growth rate above 3 to 4 percent required to secure reductions in unemployment.

As we have noted, Argentina is a major outlier here. Despite rapid growth during the 1990s, unemployment increased by a full 10 percentage points. It seems most plausible that this increase is related to the nature of the country’s deep economic reforms over this period.

**POVERTY AND INEQUALITY IN THE 1990s**

After falling continually throughout the 1970s, poverty increased dramatically in Latin America during the 1980s. By the end of the decade, the proportion of the population living in moderate poverty had risen to 35 percent, and the share of the population in extreme poverty had risen to roughly 17 percent.

During the recovery of the 1990s the poverty rate has declined very slightly, while the number of poor has increased somewhat. However, this stability of the aggregate poverty rate masks important differences in country experience. Since 1990, poverty has increased in Mexico, Honduras and (from a relatively low level) the Bahamas, while decreasing at least slightly in the other countries of the region.

As with unemployment, the relatively minor impact of the recent economic recovery on poverty rates primarily reflects the overall weakness of the 1990s recovery.

Figure 16 charts the change in the poverty rate over the most recent period for which measures exist against the rate of growth of real GDP.7 (The years listed with each country indicate the beginning and end of the period; for example, in Peru we have measures of poverty for 1986 and 1994). The figure demonstrates that higher economic growth has been associated with reductions in poverty, and suggests that a growth rate of substantially higher than 3 to 4 percent is required to secure meaningful reductions in the poverty rate. The failure of the recovery of the 1990s to reduce the region’s poverty rate despite average GDP growth of just under 3.5 percent is thus largely attributable to the weakness of the recovery to date.

6 This section draws upon Londoño, Juan Luis and Miguel Székely (1997) “Distributional Surprises after a Decade of Reforms: Latin America in the 1990s,” Inter-American Development Bank.

7 The changes graphed in Figure 16 are not equal to the difference between the 1990 and 1995 figures presented in Table 9 because the latter figures include projections by Londoño and Székely. We chose observations as close to five years apart as possible, but in some cases were forced by data limitations to work with somewhat longer or shorter time periods. Most of the observations in Figure 16 cover the 1990s, but in a few cases the most recent observations available covered the late 1980s.
Income Distribution

The failure of poverty to decline may also reflect the manner in which the gains from recovery were distributed. During the 1990s, the distribution of Latin American income did not improve, although the persistent deterioration that characterized the late 1980s was arrested.

As we discuss in more detail in Part II of this Report, poorer income groups typically benefit disproportionately from economic recovery, just as they are disproportionately hurt by bad times (Londoño and Székely, 1997). The income distribution thus tends to improve in periods of economic recovery and deteriorate in bad times. But the relatively well-off groups of Latin American society appear to have benefited from the recovery of the 1990s somewhat more than the poorest classes.

According to estimates by Londoño and Székely, the per capita income of the top income quintile grew by 5 percent between 1991 and 1995, while the per capita income of the middle and lower income groups grew only 3 percent.

The experience of the 1990s suggests that substantially more rapid growth will be required to make significant progress toward reducing unemployment and poverty and improving the distribution of income. Part II of this Report examines the role of structural policies, and

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Table 9. Poverty in Latin America during the 1990s
(Percent of population in poverty)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Bahamas</td>
<td>7.5</td>
<td>8.9</td>
<td>5.0</td>
<td>7.6</td>
</tr>
<tr>
<td>Brazil</td>
<td>46.3</td>
<td>43.5</td>
<td>24.5</td>
<td>22.9</td>
</tr>
<tr>
<td>Chile</td>
<td>31.0</td>
<td>21.5</td>
<td>8.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Colombia</td>
<td>24.4</td>
<td>21.9</td>
<td>9.0</td>
<td>6.8</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>24.0</td>
<td>21.3</td>
<td>9.4</td>
<td>8.1</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>42.4</td>
<td>36.6</td>
<td>15.6</td>
<td>11.6</td>
</tr>
<tr>
<td>Guatemala</td>
<td>45.5</td>
<td>42.5</td>
<td>24.5</td>
<td>23.1</td>
</tr>
<tr>
<td>Honduras</td>
<td>67.6</td>
<td>68.3</td>
<td>39.2</td>
<td>41.6</td>
</tr>
<tr>
<td>Jamaica</td>
<td>27.4</td>
<td>25.5</td>
<td>5.4</td>
<td>3.8</td>
</tr>
<tr>
<td>Mexico</td>
<td>19.9</td>
<td>22.3</td>
<td>11.3</td>
<td>11.8</td>
</tr>
<tr>
<td>Panama</td>
<td>53.5</td>
<td>46.0</td>
<td>30.5</td>
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</tr>
<tr>
<td>Peru</td>
<td>39.6</td>
<td>32.8</td>
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<td>10.0</td>
</tr>
<tr>
<td>Venezuela</td>
<td>14.3</td>
<td>13.4</td>
<td>8.7</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Note: Because the required household data do not exist in each year for all countries, some of the figures in this table are projections that account for the impact of macroeconomic fluctuations, but assume that the household distribution of income is the same as in the most recently available household survey data.

argues that other policy reforms, particularly in the area of education, can make an important contribution to reductions in poverty and inequality as well.

INFLATION

Inflation generally fell in 1996, with the median rate of inflation down slightly to 11 percent from about 12 percent in 1995. Inflation fell or remained approximately constant in nearly every country of the region. Only in Venezuela did inflation increase substantially, from about 55 percent in 1995 to over 100 percent in 1996. This acceleration was associated with the adoption of the April 1996 stabilization and reform package, which eliminated domestic price and exchange controls that had been in place to defend an overvalued exchange rate. The stabilization program thus began with a burst of high inflation, pushing the inflation rate for the year to just over 100 percent. Inflation began to decline in the early months of the program, and is projected to decline to 30 to 40 percent in 1997.

In other countries of the region inflation either fell or remained roughly unchanged. Brazil, Costa Rica, Haiti and Jamaica brought inflation down from about 25 percent to the 10 to 15 percent range, while inflation in Suriname declined from 37 percent in 1995 to 0.5 percent in 1996.

FISCAL POLICY

In the region as a whole, fiscal policy remained relatively restrained in 1996, with an average (population-weighted) fiscal deficit of about 1.5 percent of GDP. 8 This is slightly smaller than in 1996, and while it is larger than the deficits recorded from 1991-94, it represents a remarkable turnaround from the 1980s.

The 1996 result reflects, however, disparate results in different countries. Venezuela achieved an enormous increase in its fiscal surplus, which improved by nearly 13 percentage points of GDP. This was due to fiscal policy changes associated with the mid-1996 initiation of the stabilization program, the very favorable shock to the country’s public finances occasioned by higher petroleum prices, and a reduction in the cost of the 1994 banking crisis, which had raised spending by 4 percent of GDP in 1995. Chile also experienced a substantial increase in its fiscal surplus, which reached 5.6 percent of GDP during 1996 despite the adverse shock to copper prices.

The fiscal balance deteriorated by more than 2 percent of GDP in Barbados, El Salvador, Ecuador, Jamaica, Nicaragua, and Suriname. In Barbados, El Salvador and Suriname, the 1995 fiscal stance was sufficiently strong that the 1996 fiscal outcome remained in balance or relatively small deficit. But in the other countries, the 1996 fiscal deficit exceeded 4 percent of GDP.

Improvement in the region’s fiscal balance was in substantial part attributable to a reduction in the Brazilian fiscal deficit from nearly 5 percent in 1995 to about 4 percent in 1996, which was itself sufficient to raise the

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8 In this section we refer to data on the nonfinancial public sector in the 15 countries for which it was available. For the other countries we used data for the central government.
Despite these improvements, however, the public sector fiscal imbalance remains a critical policy problem for Brazil. Fiscal deficits were also large in Nicaragua, Costa Rica, Jamaica and Haiti.

INTERNATIONAL TRADE AND PAYMENTS

Latin American trade continued to expand in 1996, and the region’s current account deficits remained relatively low. The value in U.S. dollars of both exports and imports grew by roughly 10 percent in 1996. The expansion of exports follows an increase of nearly 20 percent in 1995, and at over $300 billion, Latin American exports now exceed 17 percent of the region’s GDP, up substantially from the 14 percent share recorded in 1993.

The region’s current account deficit increased slightly, reaching $26.5 billion, or 2.1 percent of GDP, during 1996. The deficit thus remained substantially below those recorded in 1993 and 1994, though as we note below in several countries the deficit reached a high level in 1996. Capital inflows of $63 billion, 3.6 percent of the region’s GDP, were more than sufficient to finance this deficit, and for the second consecutive year, countries of the region accumulated international reserves at a rate equivalent to roughly 1.5 percent of GDP.

Exports Continue to Expand

As in 1995, export growth was particularly dramatic in Mexico, where exports increased by nearly 20 percent during 1996, following an expansion of more than 25 percent in 1995. As in 1995, the expansion of exports followed a 20 percent increase in 1994, and at over $275 billion, Mexico’s exports now exceed 16 percent of the region’s GDP, up substantially from the 14 percent share recorded in 1993.

The region’s current account deficit increased slightly, reaching $26.5 billion, or 2.1 percent of GDP, during 1996. The deficit thus remained substantially below those recorded in 1993 and 1994, though as we note below in several countries the deficit reached a high level in 1996. Capital inflows of $63 billion, 3.6 percent of the region’s GDP, were more than sufficient to finance this deficit, and for the second consecutive year, countries of the region accumulated international reserves at a rate equivalent to roughly 1.5 percent of GDP.

Unlike most of the fiscal accounts described in the section, the Brazilian data represent the operational fiscal outcome, that is, after subtracting the component of interest expenditure that represents the inflationary component of domestic current interest rates. This definition is for most purposes more meaningful than the conventional definition, but constraints on the availability of data prevent us from adopting it for all countries of the region. In any event, in the relatively low inflation environment of 1996, the differences between the operational and the conventional fiscal accounts are relatively minor.
percent during 1995. The 1996 increase was due in some part to increased oil prices, but reflected primarily an expansion in the volume of Mexican exports. Since 1993, the U.S. dollar value of Mexican exports has risen by nearly 75 percent, bringing them from 15 percent of GDP in 1993 to 37 percent in 1996.

Exports also grew rapidly in Argentina, rising in U.S. dollar terms by over 16 percent. In sharp contrast, Brazilian exports barely increased during 1996, and have risen by only 25 percent since 1993. This relatively slow growth in Brazilian exports has been accompanied during the past two years by very rapid growth in imports, with the result that the Brazilian current account has moved rapidly into deficit.

In other countries of the region, export growth was generally between these extremes. In Southern Cone countries other than Argentina and Brazil, export growth was low, reflecting in substantial part a reduction in the value of Chilean exports associated with a sharp decline in copper prices. The value of exports grew by nearly 12 percent in the Andean economies, boosted in part by increases in oil prices, and by nearly 8 percent in Central America and the Caribbean, despite the generally unfavorable trends in this subregion’s export prices.

**Increased Private Capital Flows**

Unlike in 1995, when a large portion of the capital flows to the region were official flows associated with international support provided to help Argentina and Mexico overcome the Tequila crisis, the $63 billion in capital flows to Latin America in 1996 reflected a return of private investors. Official flows were in the aggregate reduced to insignificance by the large Mexican repayments of the loans granted by the U.S. Treasury and the IMF during 1995.

Capital flows to Argentina and Mexico declined sharply over the past two years, falling from nearly two-thirds of the regional total in 1993 to roughly 16 percent of the total in 1996. Meanwhile, reflecting the successful stabilization and reform program initiated in 1994, capital flows from Brazil rose from 2 percent of GDP during 1993 and 1.5 percent in 1994 to nearly 4.5 percent in 1995 and 1996. Capital flows to Brazil now account for nearly half the regional total.

In countries of the region other than Argentina, Brazil and Mexico, capital flows increased from about 3 percent of GDP in 1995 to nearly 5 percent in 1996. Capital flows were particularly large in Bolivia, Colombia, Guyana, Jamaica and Nicaragua. In Bolivia, Colombia and Guyana, the inflows reflected large direct foreign investments, associated in the case of Bolivia with the country’s capitalization program. In Nicaragua, the inflows represented large official flows, while in Jamaica, the inflow seem to have reflected short-term portfolio flows attracted by high domestic interest rates.

**Foreign Direct Investment Remains High**

At roughly $33 billion in 1996, foreign direct investment accounted for over half the net capital flows to the re-
region, and amounted to nearly 2 percent of GDP. This compares favorably with 1992 and 1993, when foreign direct investment accounted for only about a third of total capital inflows, though the 1996 figure is somewhat lower than those recorded during 1994 and 1995.

**Current Account Deficits High in Some Countries**

As noted above, the large capital inflows of 1996 were not accompanied by a significant increase in the region’s current account deficit, which remained at about 2 percent of GDP, but were instead used in large part to finance a substantial increase in international reserves. However, in some countries current account deficits have become sizable.

During the past two years, current account deficits in Argentina and Mexico have declined dramatically. At the same time, reflecting the spending boom associated with its successful inflation stabilization, the current account deficit in Brazil has increased from rough balance in 1993 and 1994 to about 3 percent of GDP in 1996. Though this is substantially smaller as a share of GDP than was Mexico’s deficit in 1994, Brazil’s deficit already represents a larger share of its exports, reflecting the fact that Brazil is substantially less open to international trade than is Mexico.

The current account deficit in 1996 was large—approaching or exceeding 5 percent of GDP—in a number of countries, including the Bahamas, Bolivia, Colombia, Guyana, Haiti, Nicaragua, Paraguay and Peru. Ecuador and Venezuela recorded current account surpluses, reflecting a combination of weak domestic demand and the impact of higher oil prices. The surplus was a relatively modest 1.5 percent of GDP in Ecuador, but reached over 10 percent in Venezuela.

**Current Trends in Intraregional Trade**

During the 1990s, intraregional trade has grown more rapidly than trade with nonregional partners, as trade liberalization has opened natural trading opportunities within the region. These opportunities have been fostered as well by the important subregional trade agreements of the 1990s aimed at further opening markets, intensifying competition and creating new trade and investment links.
This trend is particularly pronounced in the case of exports. Since 1990, intraregional exports have grown by 18 percent a year on average, compared to 9 percent growth in nonregional exports, and now account for 18 percent of total Latin American and Caribbean exports, up from 12 percent in 1990.

In 1996, however, the region’s intraregional exports grew at a slower rate (7 percent) than exports to third markets (12 percent). Three subregions—the Central American Common Market (CACM), the Andean Community and the Group of Three (G-3)—followed this overall trend, while NAFTA and MERCOSUR did not. In all subregional markets except NAFTA, growth in intraregional commerce slowed markedly in 1996.

Intra-CACM exports expanded by just 5 percent in 1996, a growth rate much lower than the average for the 1990-95 period. While intraregional trade has expanded less rapidly than that of other integration groups in Latin America, such trade now accounts for roughly 20 percent of total CACM exports, up from 16 percent in 1990.

After several years of rapid growth, intra-Andean trade stagnated in 1996, growing by only 1.2 percent compared to 1995. While intraregional exports still account for only 11 percent of the subregion’s total exports, the Andean market is of much greater significance for some countries (notably Colombia and Bolivia).

Trade among the G-3 members declined by 2 percent in 1996. Intragroup trade accounts for less than 3 percent of overall G-3 exports, although such exports have tripled in absolute value since 1990.

Trade among MERCOSUR member countries slowed in 1996 to 12 percent, compared to over 20 percent in 1995. As in previous years, however, intra-MERCOSUR trade again expanded at double the rate of the subregion’s exports to third markets, and now accounts for 22 percent of total exports, up from 9 percent in 1990.

Intra-NAFTA exports expanded more rapidly than NAFTA’s total exports, contrary to what happened in 1995. One of the most notable developments in 1996 was the recovery of Mexican imports from the United States, following a sharp drop in 1995 as a result of the Mexican peso crisis. Since 1990, intra-NAFTA trade has expanded by almost 11 percent a year. This is faster than the 7 percent increase in NAFTA’s trade with third countries, and now accounts for almost 50 percent of total NAFTA exports.

From 1990-95, intra-CARICOM exports grew more than twice as fast (9 percent) as CARICOM exports to the rest of the world (4 percent). Like other subregions in the hemisphere, CARICOM countries thus seem to be taking increased advantage of regional export opportunities. Nevertheless, intra-CARICOM exchanges still represent only around 10 percent of the subregion’s exports.

The picture for imports is slightly different: here, nonhemispheric markets have slightly increased their share as suppliers to the Latin American market. In 1995, almost 35 percent of the region’s imports were supplied by countries outside the hemisphere (mainly the EU, Japan and the Asian NICs), compared to a 33 percent share in 1990.

### Regional Trade Initiatives

The past year has seen a number of initiatives among Latin American and Caribbean countries to deepen and widen their regional trading arrangements, while also seeking closer links with their nonregional trade partners.

The countries of the Central American Common Market (CACM) have agreed on a new schedule for convergence to a lower common external tariff (CET). By the year 2000, all countries will have a CET of between zero and 15 percent depending on the nature of the products. CACM members have also taken steps to coordinate future trade negotiations with third countries and blocs: some negotiations may be undertaken jointly by Central American governments. One of the immediate concerns for the isthmus is the erosion of preferences with the United States and Canada due to the NAFTA agreement between these countries and Mexico. Central American countries have announced that they will seek a reciprocal free trade agreement with the United States, rather than pursue their earlier request for nonreciprocal NAFTA parity. They are also engaged in talks for a free trade accord with Mexico and CARICOM, and have voiced their intention to pursue closer relations with MERCOSUR.

Members of the Caribbean Community (CARICOM) have advanced steadily in terms of convergence to a lower common external tariff. On the external front, CARICOM faces major challenges, among them the possible revision of the European Union’s banana regime following a recent finding by the World Trade Organization (WTO) that the regime in its present form is incompatible with multilateral trade rules. Several Caribbean countries depend heavily on income from this special regime, as well as other preferences granted by the EU under the Lome IV Agreement, which expires in the year 2000. Moreover, CARICOM countries have not been successful to date in their efforts to secure NAFTA parity. In order to face these challenges and to participate effectively in the hemispheric integration process, CARICOM governments
decided in late 1996 to create a joint negotiation facility; to this end, a chief negotiator for CARICOM was appointed in early 1997. In an effort to revitalize their integration scheme, Andean Group presidents agreed in Trujillo in March 1996 to implement wide-ranging institutional reforms, including the creation of a new Andean Integration System to strengthen management of integration at the political level and to foster more effective coordination between the various Andean institutions. Recent political and economic problems in some member countries have clearly complicated the Andean integration process. One of the most serious challenges has been related to Peru’s continued special status vis-à-vis the rest of the Andean Group. Peru left the Andean free trade area in 1992 and has since maintained bilateral trade agreements with its Andean partners. A breakdown in talks regarding the conditions of Peru’s reincorporation has recently led to the announcement of that country’s separation from the regional trading bloc.

Members of the Southern Cone Common Market (MERCOSUR) continued efforts to deepen and widen their integration scheme. At its December 1996 meeting in Fortaleza, Brazil, the Common Market Council took concrete steps towards solving certain remaining obstacles to intraregional commerce. It also announced the establishment of a MERCOSUR development bank to finance integration-related investment projects, as well as a secretariat, with headquarters in Montevideo, which is to provide administrative support to the integration process. In 1996, MERCOSUR signed free trade agreements with Chile and Bolivia. With the incorporation of these two countries as associate members of MERCOSUR, the subregion has taken the first step in its plans to create a much wider integration scheme. The area of free trade that will emerge from these agreements incorporates half of the region’s population and almost 60 percent of its GDP. MERCOSUR has also entered into expansion talks with the Andean Group. An agreement between the members of the two blocs could establish an area of free trade encompassing virtually all of South America.

Since implementation of the North American Free Trade Agreement (NAFTA) in 1994, tariff reductions among the countries have proceeded as scheduled; a decision was taken in early 1997 to speed up liberalization for some products. NAFTA countries have also progressed in dismantling non-tariff barriers to trade, which are of particular importance in the agricultural area. The U.S. decision in early 1997 to lift an 83-year ban on the import of Mexican avocados has sparked optimism that the two countries may be set to resolve further issues related to agricultural trade. While NAFTA enlargement is being delayed by the U.S. government’s lack of fast-track negotiating authority, both Canada and Mexico have independently pursued bilateral trade talks with countries in the hemisphere. Canada signed a free trade agreement with Chile in November 1996, and has expressed its intention to pursue trade negotiations with other Latin American countries as well. In 1996, Mexico reinitiated trade talks with Central America and began negotiations with Ecuador; it currently has agreements with Chile, Costa Rica, Bolivia, Venezuela and Colombia.

At the hemispheric level, the 34 countries participating in the Free Trade Area of the Americas (FTAA) process have made significant progress in their preparatory work and are now discussing the possibility of launching formal free trade negotiations in 1998. There is no decision as yet on the specific timetable of negotiations and the priority of subject areas to be negotiated, although upcoming ministerial meetings are likely to produce specific decisions in this respect. Areas of identified consensus include the need for negotiations to be a single undertaking, and agreement that subregional agreements can coexist with a hemispheric accord; countries can negotiate in blocs or individually, a secretariat must be formed to support ongoing negotiations, and an FTAA agreement must be consistent with the rules of the WTO.

The past year also witnessed some setbacks in the region’s trade liberalization efforts. Brazil’s recent imposition of new import finance restrictions is one example. Colombia and Ecuador, too, resorted to some import-restricting measures in early 1997, while other countries have witnessed certain delays in complying with their agreed tariff reduction schedules. These measures were generally taken in response to fiscal or balance of payments disequilibria in some of the region’s economies.

CONTINUED STRUCTURAL REFORMS

In addition to the trade policy reforms just described, countries of the region made important progress in structural reforms in the areas of financial markets, tax and fiscal matters, privatization, labor markets, and social security systems.

Financial Reform

Financial reform has advanced at an uneven pace, with liberalization measures well ahead of supervisory and regulatory reforms. This disequilibrium, which contrib-
ADJUSTING TO REFORM

Adjusted to financial crises in several countries in the last few years, was partly corrected in a number of countries in 1996. In Mexico, several relief programs have been implemented to reduce the number of the nonperforming loans that resulted from the crisis of 1995 and have since burdened the banking sector. The adoption of the U.S. Generally Accepted Accounting Principles in 1997 will improve supervision, but may bring to the surface larger amounts of nonperforming debts in a number of banks. Measures taken in 1996 to strengthen the regulatory framework include higher capital requirements, new standards for loan classification, and a revised methodology of asset valuation.

In Paraguay, where the financial sector was under stress in 1996, a new banking law has been issued. Universal banking will be adopted, capital requirements determined according to levels of risk of the assets, and supervision strengthened. Four intervened banks are now subject to rehabilitation programs and the process of reduction and harmonization of reserve requirements, which was interrupted in 1995, has been reinitiated. As in Mexico, the financial crisis is imposing a heavy burden on the fiscal side, which may crowd out other public expenditures.

Emergency measures were also taken in Ecuador to deal with several insolvent financial institutions. Belize improved legislation related to the central bank and strengthened its supervisory capabilities. Guyana issued rules aimed at raising capital ratios and improving competition in the financial sector. In Haiti, the central bank established prudential norms that facilitate supervision and regulation of banks. In Peru, laws were issued to improve and modernize the supervisory system. Capitalization requirements have been raised, the principle of consolidated supervision established, and the regulatory capacity of the supervisory institution strengthened.

**Fiscal Reform**

Tax reforms aimed at strengthening fiscal revenues and simplifying the tax codes were passed in several countries in 1996. In Argentina, the reform increased the excise tax on gasoline and the marginal income tax rates for corporations and individuals, improved the tax administration system, and introduced changes to a number of other taxes. A proposed widening of the value-added tax (VAT) base was not approved by Congress. In Bolivia, major changes were introduced to the tax system of the hydrocarbons sector. A tax on the extraction of nonrenewable resources was implemented and the system of royalties and excises restructured.

Barbados and Belize introduced VATs to replace consumption and import taxes and reduce tax distortions. A total of 23 countries in the region have adopted VATs to replace more distorting taxes. Guatemala raised the VAT tariff from 7 percent to 10 percent and introduced a temporary surcharge to the income tax.

Measures to improve tax collection administration were also implemented in the Dominican Republic, Guyana and Mexico.

Important tax changes could take place in Colombia and Mexico in 1997. In Colombia, a tax reform introduced by government decree in early 1997 was declared unconstitutional, and new measures to strengthen tax collection or to reduce intergovernmental transfers may be discussed in the near future. Mexico is considering several tax reductions as a means to encourage investment and saving, which would partly reverse measures taken in 1995.

**Privatization**

The privatization process has gotten a second wind in the region, due to ambitious programs in Brazil and Bolivia and a new round of sales in Peru, Mexico, Colombia and Venezuela, among others. In a large number of countries, however, privatizations are facing major political opposition, and in a few cases have been halted altogether.

Brazil sold public assets in 1996 worth nearly $6 billion, its peak level since the initiation of the privatization program in 1991, and in early 1997 launched a program of sales of mining, petrochemical and infrastructure firms that is expected to raise $50 billion in two years.

Bolivia made substantial progress in its innovative program of capitalizations initiated in 1995. Of the six companies included in the program, only one remained to be capitalized as of the end of 1996 (a tin and antimony smelter). After much discussion and delays, the capitalization of the hydrocarbon company took place in December.

In Peru, the privatization process continued, with divestiture of 22 public enterprises, sale of minority stakes in telecommunications and electricity companies, and some important sales and concessions in the hydrocarbon and petrochemical sectors.

After being halted in 1995, privatizations were reinitiated both in Mexico and Colombia in 1996. In the midst of political opposition, the Mexican government
is proceeding with liberalization of sectors such as telecommunications, port and airport management, and with divestiture of railways and airports and sales of minority stakes in petrochemical plants. Colombia reinitiated divestitures in 1996, with important sales of electricity generating plants and a bank.

In Venezuela, in spite of some delays, several transactions were completed. A 49 percent stake in the telephone company was sold and several financial institutions that had been intervened in during the financial crisis were transferred to the private sector. There were sizable divestitures of ports in Panama, and in Guyana, six public companies were brought to the point of sale in 1996 and are expected to be transferred to the private sector in 1997.

Changes in the regulatory framework for the eventual privatization of utilities took place in El Salvador, Guatemala and Panama.

**Labor Market Reform**

Labor reforms have so far been rare in Latin America, and 1996 was no exception. A profound reform was decreed in Argentina, which is intended to replace severance payments by monthly contributions in personal saving accounts and to reform the collective wage bargaining process, ending the automatic renewal of collective agreements. The reform was contested by Congress and had not been approved as of May 1997.

In Venezuela in mid-1997, a Tripartite Commission representing labor unions, employers and the government reached an agreement to reform the costly severance system, within the context of a major reform of the country’s social security system. Over a period of five years, workers will receive twice the amount corresponding to the severance rights acquired until 1996. The system of severance payments will be transformed into one in which employers make annual mandatory contributions to individual workers’ accounts, which would become available to workers in the event that the employment relation is terminated, and be required to pay a penalty for an unjust dismissal of workers. The new labor law was approved by the Congress in June 1997.

**Social Security Reform**

Social security reform proceeded in Mexico, with registration of the private pension funds that are initiating operations in mid-1997. The new pension system, based on individual capitalization, will replace the old pay-as-you-go system, in one of the deepest pension reforms undertaken in Latin America in the last decade. In Uruguay, following decisions taken in 1995, the old system was split into two pillars, whereby the private pension funds complement the pay-as-you-go system. In Bolivia, a law was approved replacing the pay-as-you-go system with a system based on individual contributions administered by private companies, scheduled to start operations in mid-1997. The new system, to be partly funded by the revenue flows from capitalized companies, involves payments to all Bolivian citizens aged 65 or over. In El Salvador, Congress cleared the way for creation of private pension funds, which will start to operate in 1997 and gradually replace the traditional benefit-defined system.

The above-mentioned Venezuelan agreement on a reform of the social security system would replace the existing pay-as-you-go pension system with individual capitalized accounts and a publicly-funded minimum pension. It would also reform the health and unemployment compensation funds of the existing social security system.

**CONCLUSION**

The year 1996 produced mixed results: growth recovered from the anemic rate of the preceding year, but the rebound was largely due to strong recoveries in Argentina and Mexico, and growth was generally weaker in the rest of the region. Although investment demand was robust in the region as a whole, this too was largely due to developments in Argentina and Mexico, and investment demand slackened in much of the rest of the region. Several countries displayed signs of economic and financial stress. In many countries, domestic saving rates appear to be recovering from the substantial declines of the first years of the decade, but in Brazil national saving has recently declined dramatically.

Much of this variation can be understood in light of the progress that countries have been making through the process of adjustment to economic stabilization and reform programs. This suggests at least two messages.

First, with respect to prospects over the near term, experience suggests that the period of economic deceleration and financial stress that often materializes as an economy adjusts to a major stabilization and reform program is temporary, reflecting transitory cyclical dynamics, and not necessarily any fundamental shortcoming in the underlying reform strategy. If the correction is effected without a loss of macroeconomic stability, or if stabil-
ity is rapidly restored, these short-term, cyclical dynamics become of gradually declining significance, and longer-term factors related to the external environment and the adequacy of the policy environment become the key determinants.

Though there is not yet much experience, it is noteworthy that the countries of the region that have entered this post-correction phase have recently exhibited moderate to high rates of economic growth, with generally strong investment and rising rates of national saving. While it would be unwise to draw strong generalizations from this experience, given the rather different structural policy stances in the various countries, it is nevertheless an optimistic message for the region’s medium-term growth prospects.

Second, with respect to policy implications, the challenges facing most countries of the region continue to concern maintaining adequate management of the macroeconomic response to reform. Countries in the early expansion stage of a stabilization and reform episode have the opportunity to act preemptively to ensure that the recovery does not generate the fiscal and financial vulnerabilities that generate subsequent financial stress. This means ensuring that the fiscal stance is sufficiently strong that a transitory deceleration in the rate of economic expansion will not generate fiscal deficits large enough to require major, destabilizing fiscal contraction. It also means keeping a sharp eye on the domestic financial system to ensure that an excessively rapid bank lending boom does not unduly amplify economy expansion, and set the financial system up for difficulties when the economy slows. These aspects of macroeconomic policy management are described in more detail in Part II of this Report, while the institutional context of fiscal policy management is analyzed in Part III.

For a number of countries in the region, the immediate policy problem is ensuring that the economic and financial stresses that have emerged do not lead to a painful crisis. Here the main challenges are to address fiscal shortfalls that may emerge as the economy slows, avoid a potentially destabilizing decline in confidence, and scrutinize domestic banks and intervene early to ensure that weak banks do not magnify the likelihood and costs of a banking crisis by “gambling for resurrection.”

For countries that are no longer heavily influenced by the dynamics of adjustment to stabilization and reform programs, the challenge is to bear in mind that the task of reform is not therefore complete, and that much remains to be done on the policy agenda to promote economic growth, assure macroeconomic stability, improve prospects for employment, and ensure that the benefits of economic reform are distributed fairly. Part II of this Report describes in more detail the state of the structural policy reforms in different countries of the region, the impact on longer-term macroeconomic performance of these reforms, and the potential to improve long-term performance with deeper reforms.
Part TWO

A Decade of Structural Reforms: All Pain No Gain?
SUMMARY

Latin America’s economic and social performance during the nineties has not been satisfactory. While economic growth has recovered, it has not returned to the rates of close to 5 percent that were common in the region in the sixties and seventies, and is far less than the sustained rates of over 7 percent that have been typical of Southeast Asian countries. In 1996, eight out of every 100 Latin Americans willing to work had no job at the end of the eighties, unemployment rates had been lower, between 5 and 6 percent. Latin America is the area of the world where income distribution is worst, and that situation has not improved in the nineties. Nor has the number of poor people declined from the unprecedented level of close to 150 million that it reached at the beginning of this decade.

The insufficient economic and social progress of Latin American countries stands in contrast to the magnitude of the changes that have taken place in their economic policies. During the nineties the macroeconomic stability lost after the debt crisis has been recovered. The average inflation rate has fallen to around 10 percent, and at the end of 1996 only one country had an inflation rate over 30 percent. The fiscal deficit for the entire region is currently not over 2 percent of GDP, and only two countries have fiscal imbalances of over 5 percent of GDP. In the macroeconomic realm, countries with high inflation or severe fiscal imbalances are becoming the exception; in the area of structural or microeconomic policy, more decisive steps are being taken to make markets operate more smoothly and to reduce government interference. The most important changes have taken place in trade and financial policies. Restrictions on imports have been virtually eliminated, and tariffs have been cut from 41.6 percent in the pre-reform years to 13.7 percent at present. In the area of finance, liberalization measures have led to lifting controls on interest rates, dismantling systems of targeted credit, and lowering levels of required reserves to under 20 percent in most countries. There have also been notable advances, albeit not so deep, in the areas of tax simplification and modernization since the mid-eighties, and thanks to efforts by a small but important group of countries, Latin America has carried out a substantial proportion of the total amount of privatizations in the world.

This study asks whether these efforts have been worthwhile.

- Does the region’s unsatisfactory economic and social performance indicate that the new economic policies are a mistaken prescription for achieving the growth, stability, and equity that Latin Americans desire?
- Or is it rather that the economic reforms have not yielded all their fruits, because they have been incomplete or because not enough time has passed to see their effects?
- To reach acceptable levels of growth, stability, and equity, must the economic reforms be complemented with social reforms, reform of the state, and improvement of institutions?

How to Measure the Reforms

These questions had not been answered previously due to the difficulty of measuring the magnitude, pace, and scope of the structural reforms in each country. To remedy this deficiency, this study uses a structural policy index to measure the advances made by each country in five reform areas: trade, finance, taxes, privatization, and labor. The index reflects the freedom that economic policies have granted the market in these five areas, under the assumption that the primary, though not exclusive, aim of the economic reforms has been the more efficient allocation of productive resources.

According to the results of that index, structural reforms have made remarkable and sustained progress in the past decade. With a maximum value of one, the index reached only 0.34 in 1985, reflecting the prevalence of policies of intervention and regulation as opposed to free market policies. Ten years later, the index is over 0.60 as the result of a continual process of eliminating restrictions and simplifying the operating rules for markets. Structural policies have thus brought about a deep and widespread shift in direction in most countries. Nevertheless, the fact that the figure for the structural policy index stands at 0.60 shows that there is still considerable room for improving the region’s structural policies.

Although trade reforms are well advanced, further advances can be achieved by continuing to even out and harmonize taxes. In the area of finance, liberalization measures have advanced much more quickly than efforts to improve regulatory and supervisory systems. In the tax field, there are large vacuums in administration and collection, especially in income taxes and in broadening the bases of the value-added tax. Privatization has progressed very unevenly from one country to another, and hence there is still potential in all fields—from the sale of enterprises in the industrial and financial sectors in some countries, to setting up stable systems and institutions for private sector participation in all kinds of
infrastructure. Finally, the greatest potential is found in the area of labor legislation, where recent reforms have been meager despite the rigidities that hinder job creation in the region.

Greater Economic Growth

Without the structural reforms of the past decade, per capita income in Latin America would be 12 percent lower, and the potential GDP growth in the future 1.9 percent lower, than their current averages. Additionally, without the reforms, the joint productivity of labor and capital would have continued to fall as it had been doing since the seventies, and investment rates would have stagnated at levels averaging less than 17 percent of GDP. These conclusions are derived from a systematic analysis of the relationship between the structural reforms and economic performance of 19 countries between 1985 and 1995. By itself, this analysis does not constitute a final proof of the effectiveness of reforms, and no econometric study could make such a claim. Nonetheless, it is consistent with the results of a number of research studies conducted on Latin America and other regions, based on accepted assumptions of economic theory.

But the reforms achieved thus far are insufficient for returning to the growth rates of around 5 percent that were usual in the past, much less for attaining the rates of over 7 percent that are common in East Asia. Under present policies, the region’s economies can aspire to grow on average at a yearly rate of only 4 percent. That is partly because the structural reforms have not been complete. But even with further reforms the region could aspire to annual growth of only 5.5 percent. The greatest obstacle to future growth in the region is the lag in educational effort, which is limiting the pace of the accumulation of factors and their productivity. If the workforce had one more year of schooling than is expected from current trends over the next decade, the growth rate would rise until it reached rates of 6.5 percent. By combining better economic policies with a greater educational effort, per capita income in Latin America could be 20 percent higher within a decade, and 50 percent higher in two decades, than it would be without such strategies.

Less Job Creation

The reforms accelerated economic growth, but they slowed the pace of job creation. Because the trade and financial reforms have lowered the obstacles to investment that caused the capital-labor ratio to decline during the eighties, their effect has been to partially reverse this situation, at the cost of a decline of approximately 0.3 percent in the employment expansion rate and a cumulative 1.7 point rise in the unemployment rate. But that is not an inevitable result of the reforms, and it does not mean that the strategy was mistaken. Indeed, while markets for goods, foreign exchange, and financing have been significantly liberalized, the labor market has been freed only slightly. Deeper reforms leading to higher rates of economic growth can again increase the rate of job creation, especially if the backwardness in labor market reforms is corrected.

Less Volatility

The instability of economic policies has been one of the main sources of the volatility of production, the exchange rate and other macro variables. Structural reforms by themselves are a policy shock which can give rise to instability by encouraging an expansionary phase of economic activity, during which macroeconomic vulnerabilities may originate due to credit expansion, entry of foreign capital, and, sometimes, the procyclical reaction of public spending. The reforms may reduce other forms of volatility, however, because they improve the operation of the market and the quality of policies.

Although macro instability is far from having been eradicated, empirical evidence in this study makes it possible to conclude that the reforms of the past decade cut the volatility of economic growth and the instability of inflation by almost half, and fiscal volatility and that of real exchange rates by almost a fifth. Trade and finance reforms had the most favorable impact, by introducing greater mobility and transparency into markets for goods and factors, and by imposing discipline on economic policy and removing governmental discretionary power to limit imports, allocate credit, or control interest rates. Wherever countries have simplified their tax systems and made them more neutral, tax proceeds have become more stable.

No structural reform, however, no matter how deep and well conceived, can eliminate the sources of macro instability, especially if officials are unwilling to allow the discipline that freer markets tend to impose. The deepening of reforms and the passing of time will help reduce the volatility of gross product and other macro variables to levels comparable to those of developed economies. But that will happen only if the region’s economies can avert the fiscal, financial, and external vulnerabilities that arise during boom periods and come to the
surface during recessions. In the fiscal realm, institutions and goals must be changed so as to generate a surplus during boom periods, so that deficits can be financed in recessionary periods without abrupt spending cuts. In the realm of finance, efforts at banking oversight must be redoubled, legal frameworks must be made suitable for the development of the capital market, and new channels must be opened for generating long-term savings. To avoid becoming vulnerable from the outside, external deficits or unsustainable exchange rate appreciation must be averted. That requires an adequate combination of monetary and fiscal policies to correct excesses of domestic spending and imbalances between financial yields inside and outside the country.

Halt to Worsening Distribution

Although gaps in society have not declined in the nineties, structural reforms have been part of the solution, not the problem. Taken together, the reforms halted the worsening distribution of the previous decade because they accelerated economic growth and reactivated investment. Trade reform by itself led to a redistribution of income favorable to lower income groups, because it lowered prices for popular consumption goods and reduced the profits that national producers were deriving from protection. But the structural reforms have been a very incomplete solution to problems of distribution, because of poor education in the region. In those countries where education is more deficient, only a few have been able to take advantage of new opportunities created by the reforms, and income and wealth have therefore become more concentrated.

The structural reforms must be deepened in order to give greater drive to economic activity and investment. But that will only serve marginally to reduce levels in income concentration in the region, because the region’s continuing educational backwardness will still be a factor that increases inequalities, thereby undermining the potential positive effects of the reforms on income distribution.

An ambitious education policy is required in order to significantly change distribution patterns in Latin America. To close the education gap with the rest of the world by the year 2020, the average education of the workforce must rise by five to nine years of schooling. In combination with macro and structural policies, that would make it possible to eliminate the extra inequality that Latin America currently displays in comparison with worldwide patterns.

Such achievements would still be insufficient for reaching the levels of equity of European or Southeast Asian countries. That will also require a new generation of government policies to change the accumulation and distribution patterns for physical, human, and social assets, and to establish the institutions for social security and conflict resolution that can protect the most vulnerable social groups, facilitate better distribution, and respond to social needs.

WERE THE REFORMS EFFECTIVE?

Latin American economies today present a disturbing and paradoxical picture. Macroeconomic imbalances have been corrected and a set of ambitious structural reforms have changed the direction of economic policies. Practices of government intervention have been dismantled and markets are able to operate more smoothly and transparently. Nevertheless, the economic results are unsatisfactory. Average growth in the nineties has been a mediocre 3.3 percent. Unemployment rates have risen. The number of people living in poverty has not declined notably from its peak of almost 150 million at the start of the decade. Income distribution in Latin America remains worse than in any other region of the world.

A decade ago there were clear explanations for poor economic performance: Latin America was submerged in the debt crisis that had broken out in Mexico in 1982. Consequently, access to foreign credit had been lost and it had been necessary to abruptly cut back on all kinds of spending, both public and private. The current situation is not caused by external circumstances of that nature: a new crisis broke out in Mexico in late 1994, but its repercussions in other countries were limited and transient, and the flow of capital to the region was not interrupted. Indeed, foreign capital continued to enter most countries even in the midst of the Mexican crisis, and in 1996 it was back in full force. Although world economic growth has not accelerated in the nineties, Latin America’s export markets have been much more favorable and stable than during the previous decade.

The crisis of the eighties revealed weaknesses in previous development strategies. Governments then took advantage of the circumstances to introduce macroeconomic discipline measures and to redirect their economic policies, following clearer principles of efficiency.

These measures radically changed the economic picture in the region. In 1986, three out of four Latin American countries were burdened with inflation rates above 30 percent. At the end of 1996, only one Latin American
country in 20 was in that situation, because the number of countries with high inflation had been reduced from nine to one. Likewise, in 1986, eight countries suffered from fiscal deficits of over 5 percent of GDP, a clear indication of the macroeconomic disorder and potential instability burdening some 60 percent of Latin Americans. Today only two countries, and less than 1 percent of the region’s population, have imbalances of such magnitude.

Equally profound were some structural reforms intended to enable markets to operate freely and to avoid state interference in economic decisions. In the mid-eighties, on average every import made in Latin America had to pay tariffs of 40 percent; by 1996 this extra cost had been cut to around 10 percent.

In 1986, only ten countries allowed savings to receive a market remuneration when deposited in the financial system. Ten years later, 23 of 26 countries allow complete market freedom in this area.

The initial economic results seemed to indicate these were good decisions. But almost as though in response to a rule, the high growth rates that followed the reforms suffered setbacks four or five years later, and the reforms lost their initial impulse. In some corners interest in interventionist policies was rekindled and in some countries there was uneasiness regarding the sustainability of the current economic model.

Throughout the region questions are being raised about whether the reforms can modify the operation of the economy in the desired direction: greater growth in production and income, more employment opportunities, less instability in the macro environment, and reduced social inequity. This part of the Report takes up that discussion. We first ask how the economy’s performance is unsatisfactory, using as terms of comparison the region’s past or achievements in other regions of the world. Then we discuss whether that performance in those aspects of concern to the public and governments has been the result of the reforms undertaken in the region or not.

In response to this question, one can propose the four alternative hypotheses that are discussed in this document. The most pessimistic hypothesis is that the reforms have not shifted the operation of the economy in the desired direction, and hence they are a mistaken policy prescription. Historically, Latin America has been held captive by a number of ideological currents—populism, global monetarism, orthodox and unorthodox varieties of inflationary stabilization—none of which has necessarily been conducive to attaining the objectives of growth, stability, and equity. If the reforms are mistaken, then it is necessary to design new strategies.

A second hypothesis is that the economic results incompletely reflect the effects of the reforms that have been implemented, but that over time those results will move in the desired direction, once economies adjust to the new rules of the game and take advantage of new market opportunities. In the meantime, it may be necessary to take complementary and temporary measures to improve the living standards of the poorest population, but the key requirement is to consolidate the reform process and avoid letting it slip backwards.

A third hypothesis is that the countries that have begun the macroeconomic and structural reform process need to enter even more deeply into those reforms to make satisfactory gains in growth, employment generation, stability, and equity. Even where reforms were appropriate, they may have been insufficient as to magnitude or composition. Greater emphasis might be required, for example, in certain areas of macroeconomic stabilization or market reforms to achieve a combination of objectives. That can be especially crucial if the relationship between objectives and policies is not linear. In that case, even though much has improved in Latin America, perhaps the minimum thresholds that would make an important difference have not yet been crossed. For example, while eliminating three-digit inflation is praiseworthy, it may be that appreciable effects on growth are felt only when inflation has reached one-digit levels. Similarly, it is feasible that income concentration cannot begin to be corrected except on the basis of levels of economic growth that are not attainable through the current magnitude of reforms, so that at least for the sake of this objective, the reforms would have to be deepened.

Finally the fourth hypothesis—and the most probable according to this analysis—is that the set of macroeconomic and structural reforms, even if deepened, could not achieve the combination of objectives desired. Although the reforms are spurring growth, they are not doing so at the pace that society expects, in view of past experience or of progress in regions such as Southeast Asia. If so, then actions would be required in other policy areas that do not yet receive enough attention in the region. One of those areas may be education, while another may be the quality of government institutions. Or it may be that stabilization and the structural reforms have been favorable and sufficient for attaining adequate growth rates, but at the cost of increasing the instability of the economy or worsening income distribution. Ultimately, the overriding purpose of the reforms has been to improve economic efficiency, more than to pursue purposes of social protection or even of macro stabiliza-
ECONOMIC PERFORMANCE IN THE 1990s

Average growth in Latin America between 1990 and 1996 has been around 3 percent. This performance is better than that of the eighties when average growth was barely over 1 percent. The magnitude of this recovery is by no means insignificant, especially in view of the fact that the world economy kept growing at a pace similar to that of the eighties and that the industrial economies slowed considerably (Table 1).

Inadequate Growth

From these two viewpoints, therefore, the situation of the region now looks better. But no one regards a 3.3 percent annual growth rate as satisfactory for a region with an average per capita income that is barely one-sixth that of the developed countries and that has fallen far behind countries that three decades ago had similar or even lower income levels (Figure 1).

It is important to note, moreover, that the region’s average performances conceal distinct differences between countries. The rather modest results observed in some cases contrast with the high growth rates attained by countries such as Argentina, Chile, El Salvador, or Peru (Figure 2). Hence, rather than overall unsatisfactory growth, the region is witnessing notable diversity—which suggests there are particular factors of success (or failure) that could be detected and taken advantage of (or avoided) by other countries. In a later section we inquire whether the intensity and composition of the macro and structural reforms enter into those individual factors.

Productivity Higher, but Accumulation Insufficient

Although Latin America’s growth has resumed, it has not returned to the levels of the sixties and seventies. Eco-
nomic growth measures the pace at which production of goods and services is increasing, and can be seen as a result of the quantity of factors of production and the efficiency with which they are used. Is the region’s recovery incomplete because productive factors—society’s physical and human capital—are growing more slowly than in the past, or because efficiency gains have slowed? The answer is a combination of both (Table 2).

While the capital stock of the region’s economies was growing on average at rates near 6 percent a year during the sixties and seventies, during the eighties it grew at a scant 2.7 percent, and in the nineties the pace has risen to only 3.2 percent a year. This means that, despite improvement in comparison with the eighties, current rates of investment are lower than those of the sixties and seventies, and do not match the growth rates of capital stock maintained at that time.

Much more important, however, is the fact that the rate of accumulation of productive human resources, that is, the labor force and its educational capital, has also declined. In the sixties and seventies, the educational level of the labor force was growing at rates of over 2 percent; that growth slowed in the eighties and in the nineties is less than 1 percent. The region’s lag in education has become the greatest drawback to recovering its previous rates of expansion of productive capability.

Productivity performance is more encouraging, although not entirely satisfactory. After having fallen on average during the seventies and eighties, productivity has returned to making a positive contribution to the average growth of the region’s economies in the nineties. Its annual contribution to growth has been around 0.4 percentage points on average during this decade. As we will see, productivity was unleashed very effectively by the structural reforms and stabilization.

In short, the insufficient recovery of economic
A DECADE OF STRUCTURAL REFORMS

Growth in the nineties is due more to a problem of accumulation of both physical capital and human capital than to the lack of productivity growth. Growth has been aided by improved efficiency.

Labor Situation Not Improved

The recovery of economic growth during this decade has not been reflected in improved labor indicators. The rate of employment growth has fallen by half, while the unemployment rate has risen by over two points.

Employment rates fell sharply from the most critical moment of the debt crisis (between 1982 and 1985, varying by country) and the end of the eighties. Since then, employment trends have been toward stagnation or outright deterioration. In 1989, only five or six of every 100 Latin Americans willing to work were unemployed. In 1996, nearly eight of every 100 workers were unemployed (Figure 3). In Argentina, the most extreme case, the unemployment rate rose by approximately 10 points, but there were also significant increases in the region’s other two large economies: Brazil (2.6 points) and Mexico (3 points). By contrast, only in Bolivia was there a marked decline in unemployment, although it also fell in Chile, Guatemala, and Panama.

The increase in unemployment rates was not due to changes in the labor supply, but to lower growth in demand for labor. Indeed, the growth rate of the labor supply in the region has fallen by 2.9 percent in the first half of the eighties, to 2.8 percent in the next five-year period, and to 2.6 percent in the nineties. But the growth rate of employment has fallen even more sharply. Between 1990 and 1995, employment grew at a rate of 1.7 percent. Between 1985 and 1990, the rate had been twice as great.

Table 2. Latin American Growth, Accumulation, and Productivity, 1965-95

<table>
<thead>
<tr>
<th>Years</th>
<th>Growth</th>
<th>Investment ratio (% of GDP)</th>
<th>Growth of capital stock</th>
<th>Growth of workforce</th>
<th>Increase in educational level</th>
<th>Growth of total factor productivity</th>
<th>Growth of average labor productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965-70</td>
<td>5.6</td>
<td>20.3</td>
<td>5.8</td>
<td>2.3</td>
<td>2.1</td>
<td>0.7</td>
<td>3.2</td>
</tr>
<tr>
<td>1971-80</td>
<td>4.9</td>
<td>23.6</td>
<td>6.4</td>
<td>2.8</td>
<td>2.3</td>
<td>-0.7</td>
<td>2.0</td>
</tr>
<tr>
<td>1981-90</td>
<td>1.5</td>
<td>19.5</td>
<td>2.7</td>
<td>2.8</td>
<td>1.7</td>
<td>-2.4</td>
<td>-1.3</td>
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<tr>
<td>1991-95</td>
<td>3.8</td>
<td>19.6</td>
<td>3.2</td>
<td>2.6</td>
<td>0.8</td>
<td>0.4</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Note: The statistics are simple averages for 19 countries (not including The Bahamas, Barbados, Belize, Haiti, Guyana, Panama and Suriname).
Source: Lora and Barrera (1997).

FIGURE 3
Unemployment in Latin America, 1980-96
(Percent of workforce)

FIGURE 4
Employment Growth, 1985-90 vs. 1990-95
(In annual percent)
(Figure 4). This trend has affected virtually all countries. A significant exception is Argentina, where the higher unemployment rate is not due to changes in the pace of employment growth, but to greater participation in the labor market.

Nor has the trend in real wages been entirely encouraging. Throughout the eighties real wages tended to decline in Latin America (Figure 5). The cumulative reduction was close to 50 percent, although it varied a great deal across countries. Brazil, Mexico, Peru and Venezuela registered drops of over 50 percent, while in Chile, Colombia, and Costa Rica, real wages held steady or rose. As compared with the declines in the eighties, real wages declined very modestly between 1990 and 1995—less than 10 percent for the region as a whole—and only in Chile, Mexico, and Peru did the decline approach or surpass 20 percent. Some of these wide fluctuations were cushioned by the expansion of businesses and by complementary labor activities, and hence were not reflected so strongly in the family incomes of the lowest income groups.

In short, higher economic growth in the nineties has not brought either lower unemployment rates or complete recovery of real wages.

Increased Stability

The term “economic stabilization” conventionally refers to the reduction of inflation and the fiscal adjustment required in order that the reduction be sustained. In this sense of the term, it is unquestionable that during the nineties Latin America has completely restored the stability lost in the eighties. In the last few years the average inflation rate has fallen to levels near 10 percent, and by the end of 1996 only one country had an inflation rate of over 30 percent (Figure 6).

The fiscal adjustment necessary to adjust this “dis-inflation” has likewise been achieved. Fiscal accounts were practically in balance on average in the region in the first few years of the decade. Today the deficit of the entire region is not over 2 percent of GDP. A mere eight countries had fiscal deficits over 3 percent of GDP, and only two of those were over 5 percent of GDP (Figure 7). Although many countries in the region are facing major fiscal deficits over the medium run, the nineties have not been a period of large or destabilizing fiscal deficits, thanks in part to the recovery of growth and, in some
countries, the use of temporary resources, such as privatization.

But the term “economic instability” allows for a different meaning, one that can greatly affect individuals. When changes do not follow established trends or patterns of variation over time, it is impossible to predict economic events. This kind of instability is often termed “volatility.” Although people are aware that volatility is harmful and to be avoided, the costs imposed on individuals by a volatile economic environment have only recently begun to be studied. As analyzed in an earlier edition of this Report (IDB 1995), volatility undermines people’s educational objectives, worsens income distribution, and increases poverty. Although it is debatable which forms of economic volatility are most harmful, the evidence examined in that Report suggests that in certain areas—the GDP, real exchange rates, the terms of trade, or monetary and fiscal variables—instability can be very harmful for investment and long-term economic growth. Hence, we will consider whether these forms of volatility have appeared in the nineties.

The volatility of economic growth (measured by changes in the growth rates of the countries from one year to the next) has declined in the nineties in comparison with its high level during the 1980s, and has returned to levels like those of the previous two decades (Figure 8).

Nevertheless, the region’s volatility has remained high in comparison with the industrial economies and the Asian “miracle” economies. For Argentina, Mexico, Peru, and Venezuela, the nineties have been more volatile than any of the past three decades. In other countries, however, the current decade has been a period of relative stability. An outstanding case is that of Chile, where the volatility of GDP growth has declined steadily since the 1970s, and is now more or less equal to that of industrial countries. Colombia’s economy has maintained impressive stability levels, while Ecuador and the smaller countries of the region have also experienced a substantial decline in the volatility of growth.

Real exchange rates have been somewhat more stable during the nineties than during the eighties, but continue to be more volatile than in the 1960s and 1970s, and certainly less stable than in the industrial economies (Figure 9). The volatility of real exchange rates in the nineties has been particularly high in Argentina, Brazil, Mexico, Peru, and Venezuela, even though in all cases except Brazil, instability was less than in the extremely turbulent 1980s. Again, Chile stands out for lowering real exchange-rate volatility from extremely high levels in the seventies to a range below those of the industrial economies (Figure 9).

But the averages of the nineties (Figure 9) offer an incomplete and somewhat deceptive impression. In some countries there have been abrupt changes in real interest rate behavior during these years, which are generally associated with stabilizing inflation. Indeed, stabilization in Argentina (1991), Brazil (1994) and Peru (1991) led to an immediate fall in the volatility of the real interest rate, while the opposite took place in Mexico (1995), and Venezuela (1994) as inflation rose (Figure 10).

In fact, the 1990s have been a relatively calm period...
in the world economy, and that is reflected in the behavior of external prices. Latin America's terms of trade have been more stable during the nineties than at any period in recent history, and this has also been the case elsewhere in the world. This relatively calm international environment can help explain the greater stability in the region. But the internal causes of macroeconomic volatility have also shown improvement. Not only have fiscal deficits declined, as we have seen, but they have on average been more stable during the nineties. From the high levels seen in the 1980s, the standard deviation of Latin America's fiscal balance has declined to the levels of industrial countries during the nineties. By contrast, monetary instability, which is measured in terms of the variability of economic growth, remains extraordinarily high and on average has not declined during the nineties (Figure 11). Although in many countries monetary instability is substantially lower than the levels recorded in the 1980s, the average has been affected by unstable monetary conditions in some countries, especially in Brazil until the most recent years of the period.

Hence, recent history suggests that volatility has declined in Latin America in the nineties. Greater stability of such important variables as economic growth or the real exchange rate may have been partly aided by the international climate, but they may also have responded to policies that the region has adopted, especially in the fiscal realm, where stability has markedly improved, and in some areas of structural reforms, as we shall see below. By contrast, monetary instability is far from eliminated, and in many countries it continues to affect volatility.

Poverty Levels Not Reduced

Levels of income concentration have not undergone major changes for Latin America as a whole since the end of the eighties. The share of the poorest in income has held steady, and the share of the wealthiest groups has fluctuated with no clear trend. The number of poor people in the region has not increased in the nineties. That is little consolation, however. From an international comparison standpoint, Latin America is the region of the world where distribution is worst. The weighted average of the Gini coefficients, the usual measure of concentration, is substantially higher than in the developed countries or in the economies of Southeast Asia; it is higher than in any other region of the world, and is comparable only to the average of African countries (Figure 12).

Likewise, if past trends are the term of comparison, it is evident that the region’s income distribution seriously worsened during the debt crisis. Although that trend changed by the end of the eighties, income concentration has remained at high levels. The poorest 20 percent of the overall population receives only 3 percent of total income, while at the other extreme the wealthiest 20 percent holds 60 percent, the same proportions as in the early seventies (Figure 13).

Something similar has happened with poverty levels. The percentage of people living in poverty has remained steady at slightly over 35 percent of the region’s total population since the end of the eighties. Before the debt crisis of that decade, the number of poor had dropped below 90 million; since 1990, it has fluctuated at around 150 million, more than at any time in the two
previous decades (Figure 14). Estimates from other international organizations show similar trends for the proportion of households affected by poverty.1

Changes in distribution and poverty levels have also varied widely between countries. Disparities between countries showed some tendency to increase: the most pronounced improvements occurred in countries with better initial distributions (such as Uruguay and Jamaica), while some with poor initial distributions (like Brazil, Guatemala, and Panama) became even worse (Figure 15).

Since changes in distribution were combined with rates of economic growth that were also unequal, the incidence of poverty changed in very different ways between some countries and others. In seven countries where poverty had increased in the second half of the eighties, the situation improved in the first half of the nineties. Only three countries managed to reduce poverty in the second half of the eighties (Chile, Colombia, Jamaica) and those three made further advances in the next five years. In the Bahamas, Honduras, and Mexico, the incidence of poverty increased in both periods.

In sum, although the nineties have not been a period of widespread increase of inequality and poverty, the

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1 According to ECLAC (1997, Chap. I), the percentage of poor households rose from 30 percent in 1980 to 41 percent in 1990, and in 1994 declined to just 39 percent.
deteriorating trends of the previous decade have barely been halted, without further progress. Nonetheless, as in other aspects of economic performance, the trend of these variables has been uneven from one country to another.

**Overall Performance Unsatisfactory**

In short, the region’s economic performance has improved during this decade, but it is far from satisfactory. Growth has rebounded, but it has not returned to the levels of the past, nor is it comparable to that of the rapidly developing Asian economies. Unemployment has risen and real wages have only partially recovered from the decline of the eighties. The stability of the macroeconomic environment has improved in various respects, thanks to the external situation and to domestic policies, but the volatility of growth remains higher than it is elsewhere in the world. The trends toward worsening distribution and an increase of poverty unleashed with the debt crisis have halted in the nineties, but no new advances have been made. In each of these areas, however, differences between countries are striking, which suggests that simplistic interpretations of the effects of economic reforms are incomplete.

**THE REFORMS**

The insufficient recovery of Latin American economies stands in sharp contrast to the magnitude of the changes that have taken place in their policies. Not only has macroeconomic stability been recovered to the point where countries with high inflation or severe fiscal imbalances are ever more the exception, but, more importantly, structural policies have been turned around through reforms of varying intensity in the areas of foreign trade, taxation, financial services, privatization, labor legislation, and pension systems.

Through deep liberalization measures, efforts have been made to facilitate foreign trade and financing activities. External transactions of purchasing and selling goods and services in 1996 rose to a quarter of the region’s entire production of goods and services, substantially higher than the 15 percent average existing in the seventies and first half of the eighties. Likewise, in 1996 the cash balances and deposits that the region’s individuals and firms were willing to maintain in the financial institutions of their countries represented 38 percent of national revenues on average, 8 percentage points higher than a decade earlier. Although the opening of trade and finance was not accepted with universal enthusiasm, it has changed the way Latin American economies operate.

Although varying greatly from country to country, the privatization programs of the last decade have opened up unprecedented opportunities to local and international investors. Less deep, but still important, are the reforms aimed at simplifying tax systems and making the relationships between treasuries and taxpayers more transparent. Despite political difficulties and the opposition of various social groups, a few countries have even managed to open their pension systems to various kinds of private enterprise. In a few others, regulations on hiring and firing workers that no one had dared to change for several decades have been modified.

Changes have been so many and diverse that comparisons across countries at first glance seem impossible. But measurements of the magnitude, pace, and scope of the reforms in each country are required in order to evaluate their impact and to establish which factors are responsible for progress or retreat. Moreover, structural reforms, which varied in depth and scope from one country to another, are hardly the only element of change introduced in the nineties.

There now follows a summary of progress in the main reform areas, which serves as the basis for constructing a structural policy index. This index makes it possible to measure the changes that have occurred over time in each country, and in the region as a whole, in the areas of trade, finance, tax, privatization, and labor legislation.

**Far-reaching Trade Opening**

The common aim of structural reforms has been to expand the scope of action and to improve the functioning of markets. Behind this aim has been the conviction that freer markets make it possible to use productive resources more efficiently. This has meant eliminating restrictions, reducing and simplifying charges, and encouraging private enterprise. In the realm of trade, the reforms have consisted of reducing and unifying tariffs, dismantling all kinds of restrictions and permits for imports, and unifying exchange rates.

Following trade liberalization programs in the Southern Cone at the end of the seventies, virtually all countries initiated large-scale programs between 1985 and 1991 to open up their trade regimes. Average tariffs dropped from levels of 41.6 percent in the pre-reform years to 13.7 percent in 1995, and maximum tariffs were cut from an average of 83.7 percent to 41 percent, thereby notably reducing spread (Figure 16). At present, only
seven countries (out of a total of 26) have average tariffs of over 15 percent, and only two apply maximum tariffs of over 100 percent to a small number of items (Figure 17). Nontariff restrictions that used to affect 37.6 percent of imports in the pre-reform period today cover just 6.3 percent of imports (for 11 countries on which there is information).

By the mid-eighties multiple exchange rate systems had spread to most countries, and absolutely all of them had established restrictions on capital outflows and requirements for repatriating export revenues. Some also imposed surcharges on imports and pre-payment deposits. After the wave of recent exchange-rate liberalizations, these restrictions have been dismantled. Today multiple exchange rates are the exception despite the difficulties they experienced in 1995, Argentina and Mexico did not employ that device. Only Venezuela took a step backward in the exchange rate process temporarily in 1994. In fourteen countries there is no longer any type of restriction on payment for current transactions, and in most of them conditions for capital transactions have been dismantled or notably softened. In some countries, current restrictions on capital movements are aimed at moderating inflows, especially those of short-term capital, but no longer at preventing capital outflows. As evidence of the process of exchange-rate unification and deregulation, in 1995 the differential between the average market price for foreign exchange (including transaction costs and exchange rate taxes) and the official rate was on average only 2 percent, as opposed to 72 percent in 1989. In sixteen countries the exchange rate differential is zero or under 3 percent, and only in five was it over 10 percent in 1995. However, the exchange-rate differential depends not only on exchange-rate systems, but also on macro factors that affect the real exchange rate, such as inflationary pressures and foreign capital inflows (Figure 18).

In the past decade the creation and deepening of trade agreements has been a central component of Latin America’s trade reform process. For example:

- MERCOSUR was created, and the Andean Group, the Central American Common Market, and CARICOM were revitalized. All these markets are now in varying phases of consolidation as customs unions.
- Since 1990, around twenty bilateral trade liberalization agreements have been signed, some of universal and immediate scope (between Chile and Mexico, and among Venezuela, Colombia, and Ecuador), and free trade agreements on services within the Group of Three (Colombia, Mexico, and Venezuela) and for Mexico/Costa Rica, and Mexico/Bolivia, have been negotiated;
• In 1992, the North American Free Trade Agreement between the United States, Canada, and Mexico was signed and
• In 1995 the countries of the region accepted the commitment to establish a hemispheric free trade area.

**Major Tax Simplification**

In the tax realm, reforms have also been deep; their most common features have been the pursuit of neutrality, legal and administrative simplification, and greater revenues. Taxes on foreign trade, which in 1980 represented 29.9 percent of the taxes of the average country in the region, were partially replaced by domestic taxes, to the point where they now generate only 16.6 percent of revenue collected. To moderate the distorting effects of taxation on production and saving decisions, 21 countries have adopted tax and value-added systems to charge consumption, and others will do so in 1996 and 1997. However, the collection rates on VAT are very much lower than their statutory rates due to exclusion of many final goods and services from the tax base, and management and oversight problems, all of which limit the neutrality of this tax (Figure 19). The extreme marginal rates that used to be applied to company profits in the past have been cut, and in only three countries are they over the highest marginal rate in the United States (39.6 percent, see Figure 20). For reasons of equity, differential rates broader than those over personal income have been maintained, although they are still lower than those in effect in previous decades (Figure 21).

Many countries have undertaken serious efforts to improve tax administration and to reduce tax evasion. In 14 countries special tax units have been set up to improve collections from major taxpayers.

**Financial Liberalization, but Inadequate Supervision**

The financial reforms adopted in the region since the mid-eighties have focused on lowering or eliminating targeted credit programs, freezing interest rates, reducing reserve rate requirements, and setting up modern banking regulation systems. These reforms represent noteworthy progress toward freeing the operation of financial markets and fashioning adequate regulation systems. The following indicators summarize the stage of financial liberalization policies (see Table 3).

- 18 countries have eliminated or substantially cut targeted credit programs. Two countries have eliminat-
ed such programs and the rest have cut them by at least half.

- 14 countries have dismantled administrative controls on some or all deposit rates, and 17 have decontrolled lending interest rates. Currently in 18 countries, all interest rates for deposits and loans are ruled by the market and only one country still has extensive controls on interest rates.2

- Reserve rate requirements have been cut in 16 countries, and in 7 of them, reductions were of 20 points or more. As a result, a total of 15 countries have reserve rate requirements for cash deposits of no more than 20 percent.

- Modern systems for banking regulation and capital markets have been established in most countries in this wave of financial reforms.

- Although half the region’s countries improved their supervisory and regulatory systems, in 12 countries further improvements are still needed to accommodate the degree of development of their financial sectors.

### Major Privatization in Some Countries

Privatization has been the most visible component of the strategy to reorganize the apparatus of the state and simplify government activities. The scope of privatization has been remarkable, although very uneven between countries. The 755 sales and transfers to the private sector in Latin America that occurred between 1988 and 1995 rep-

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2 In Argentine and Chile, restrictions on some lending rates apply to very small segments of the credit market.

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### Table 3. Financial Reforms

<table>
<thead>
<tr>
<th>Country</th>
<th>Initial year of reform</th>
<th>Deposit rates liberalized?</th>
<th>Lending rates liberalized?</th>
<th>Did cash reserves diminish? (Much is 20 points or more)</th>
<th>Were targeted credits eliminated (at least by half)?</th>
<th>Was capital market legislation modernized?</th>
<th>Was banking legislation modernized?</th>
<th>Was banking supervision improved?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>1992</td>
<td>—</td>
<td>—</td>
<td>Much</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bahamas</td>
<td>1994</td>
<td>—</td>
<td>—</td>
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<td>Never existed</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Barbados</td>
<td>1995</td>
<td>—</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Belize</td>
<td>1995</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bolivia</td>
<td>1990</td>
<td>Yes</td>
<td>Yes</td>
<td>Some</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Some</td>
</tr>
<tr>
<td>Brazil</td>
<td>1998</td>
<td>Yes</td>
<td>Yes**</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Chile</td>
<td>1989</td>
<td>—</td>
<td>—</td>
<td>No</td>
<td>Did not have existing</td>
<td>No</td>
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<td>No</td>
</tr>
<tr>
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<td>1990</td>
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<td>—</td>
<td>Much</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
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<td>1988</td>
<td>Yes</td>
<td>Yes**</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Dom. Rep</td>
<td>1991</td>
<td>Yes</td>
<td>Yes**</td>
<td>Some</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Ecuador</td>
<td>1992</td>
<td>Yes</td>
<td>Yes**</td>
<td>Some</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>El Salvador</td>
<td>1990</td>
<td>Yes</td>
<td>Yes**</td>
<td>Some</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Guatemala</td>
<td>1991</td>
<td>Yes</td>
<td>Yes**</td>
<td>Some</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Guyana</td>
<td>1988</td>
<td>Yes</td>
<td>Yes**</td>
<td>Some</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Some</td>
</tr>
<tr>
<td>Haiti</td>
<td>1995</td>
<td>—</td>
<td>—</td>
<td>No</td>
<td>Never existed</td>
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<td>Honduras</td>
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<td>—</td>
<td>—</td>
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<td>No</td>
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<td>1992</td>
<td>—</td>
<td>—**</td>
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<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Mexico</td>
<td>1989</td>
<td>—</td>
<td>—**</td>
<td>Much</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Nicaragua</td>
<td>1990</td>
<td>Yes</td>
<td>Yes**</td>
<td>Much</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Panama</td>
<td>—</td>
<td>—</td>
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<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
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<td>1988</td>
<td>Yes</td>
<td>Yes**</td>
<td>Some</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Peru</td>
<td>1990</td>
<td>Yes</td>
<td>Yes**</td>
<td>Much</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Suriname</td>
<td>—</td>
<td>—</td>
<td>—***</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Trin. and Tob.</td>
<td>1990</td>
<td>—</td>
<td>—</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Uruguay</td>
<td>1985</td>
<td>—</td>
<td>—</td>
<td>Much</td>
<td>Totally</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1989</td>
<td>Yes</td>
<td>Yes**</td>
<td>Much</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

* They had already been liberalized.
** A few rates are controlled.
*** Controls are widespread.
† A modern capital market, or banking legislation (or a set of regulations) already regulated the market prior to the financial reform period.
1 The law exists but regulates nothing, because there is no real capital market. No equity transactions are recorded, only money market instruments.
2 The new legislation was not effectively implemented.
resent more than half the total value of privatization op-
erations in all developing countries. Mexico and Argen-
tina have carried out largest privatizations, measured in
the sums involved: US$27 billion and US$18 billion re-
spectively. In comparison to the size of their economies,
another seven countries have made similar privatization
efforts (Figure 22), and 14 countries have carried out
privatizations totalling over 1 percent of GDP in some
year. Forty-three percent of the value of privatizations in
the region have taken place in utilities, which were tradi-
tionally closed to private participation and where the
potential to obtain gains from productivity and efficien-
cy is greater. Another 22 percent have come from the sale
of banks and similar entities, thereby bolstering trends
toward financial reform.

In short, reforms have been very deep and rapid in
the areas of trade and financial policy, and somewhat
less complete (although still very significant in some
countries) in the area of taxation and privatization. As
Dani Rodrik (1996) observes, some Latin American coun-
tries have adopted more trade and finance liberalization
policies and carried out more privatization in a short time
period than the East Asian countries have accomplished
in three decades.

**Scant Labor Reform**

By contrast with the foregoing, reforms in labor regula-
tion have been few and of lesser scope. While 23 coun-
tries (out of a total of 26) made far-reaching trade re-
forms, 24 appreciably decontrolled their financial sectors,
and 14 carried out privatizations that in some year to-
taled over 1 percent of GDP, only five countries made
significant labor reforms between the mid-eighties and
1995: Argentina (1991), Colombia (1990), Guatemala
(1990), Panama (1995), and Peru (1991). In addition,
Argentina and Venezuela were discussing new changes
in labor legislation in 1997.

Reforms in labor have focused on moderating costs
of firing and temporary hiring of workers. Given the lack
of universal social safeguard systems in most of the coun-
tries in the region, the regulations that traditionally have
governed labor activity were issued with the aim of as-
suring job stability and protecting workers from the risks
arising from unemployment, illness, and old age, among
other things. Those objectives have not always been at-
tained, however, because such restrictions led to exces-
sive labor turnover, encouraged the use of informal mech-
isms, and exacerbated unemployment.

In most countries in the region, dismissing a worker
after one year of employment costs more than a month’s
wages; in six countries it is at least three times that. (Fig-
ure 23). With ten years of seniority the costs of dismissal
are even greater: at least six months pay in most coun-
tries, and over twelve months in six countries (Figure 24).
One common element of recent labor reforms (and some
currently under discussion) is amending the regulations
governing dismissal costs, with a view to reducing their

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1 Excluding those made by massive distribution of coupons in East European
countries.
In order to promote stable employment, 14 countries have traditionally placed restrictions on temporary hiring, severely limiting or completely forbidding this type of labor relation. They were thereby restricting the labor flexibility that some companies require due to the unstable characteristics of their demand or their production processes. Only four countries (Argentina, Colombia, Ecuador, and Peru) have applied partial correctives to this situation.

In most countries in the region, non-wage costs resulting from contributions by companies and workers to programs for social security, health, family compensation, and unemployment are very high (besides other non-wage costs for contributions to education and training programs or for payments for vacations, bonuses, etc.). In Argentina, Brazil, Colombia, and Uruguay the costs of contributions to these programs is over 30 percent of direct wage cost, and in another eight countries they are between 15 percent and 30 percent. Some countries have introduced correctives to this situation, either through reductions in payment rates or by tying individual contributions more closely to benefits from social security systems, thereby reducing their tax character. But in many countries greater correctives are needed to prevent protection programs from being a disincentive to formal employment (Figure 25).

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**A Structural Policy Index for Measuring Reforms**

A number of studies have attempted to analyze the effects of structural reforms on growth, investment and other economic variables.\(^4\) The main difficulty encountered is how to measure the magnitude of reforms. Available economic statistics deal with outcomes, such as growth, inflation, or foreign trade, rather than the policies affecting those outcomes. Indeed, variables usually regarded as policy indicators, such as the fiscal deficit or the financial depth of the economy, are actually outcome variables influenced not only by policy decisions but also by other internal and external phenomena, such as the business cycle, the terms of trade, or external interest rates. The greatest efforts to measure policy variables directly have been in the area of import and export regimes.\(^5\)

The lack of precise information on the magnitude of the reforms makes it difficult to assess the relative importance of the various reform areas, and to distin-

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guish between the effects of macroeconomic reforms themselves and those deriving from macroeconomic stabilization, even though these kinds of reforms tend to be mutually reinforcing. In order to remedy these lacks, this study makes use of a structural policy index constructed by Lora (1997), for most countries in Latin America (see Box 1).

Note that the index only seeks to measure the neutrality of policies, that is, the space they grant to market decisions. This assumes that the primary objective of structural economic reforms has been to achieve greater efficiency in allocating productive resources—by eliminating or reducing distortions caused by policies that constrain the operation of markets or that impose costs on transactions or productive activities. The index does not seek to measure other aspects of the quality of economic policies. For example, it does not take into account the possibility that labor legislation may also offer protection and stability or that tax policies may pursue aims of redistribution. Only in the area of finance policies are

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**Box 1. Composition of the Structural Policy Index**

The index seeks to measure the market freedom allowed by economic policies in five areas: trade, tax, finance, privatization and labor. All the variables considered by the index (usually there is more than one policy variable in each of the areas) can range from 0 to 1, based on the worst and best observation of the variable in the entire sample of countries and years.* The total structural policy index is the simple average of the indices in the five areas, which in turn are the simple average of the indices for the policy variables considered. The policy variables considered in each area are as follows (for greater detail, see Appendix 5):

**Trade policy** indicators are (i) average tariffs (including surcharges) and (ii) the tariff spread. For lack of information, the index does not consider, as would be desirable, the restrictions placed on international trade through permits and quotas. The information on exchange rate differentials cited in the text is not sufficient for measuring non-tariff and exchange rate restrictions, because it represents an outcome, rather than a policy variable, and is closely connected to macroeconomic imbalances and external shocks.

**Tax policy** indicators are (i) maximum marginal income tax rate on corporations, (ii) maximum marginal income tax rate on individuals, (iii) basic value-added tax rate, and, for countries on which information is available, (iv) productivity of value-added tax (defined as the ratio between the basic rate and actual collection expressed as a percentage of GDP). We have chosen the maximum instead of the average marginal tax rates, because the former are those that influence labor and investment decisions. We take into account the productivity rate of the VAT because that indicates how far the real indirect taxation system deviates from the principle of neutrality between economic activities.

**Financial policy** indicators are (i) freedom of interest rates on deposits, (ii) freedom of interest rates on loans, (iii) real level of reserves of bank deposits, and (iv) quality of banking and finance oversight (on a discrete and subjective scale, with three levels).

**Privatization.** The only indicator used is the effort at privatization measured as the sums accumulated from privatization since 1988, including sales and other property transfers, as a proportion of average public investment between 1985 and 1987. We take the cumulative privatization and not the flow, because we are interested in measuring the field opened to private enterprise. Similarly in tariff areas, the levels are taken, not the changes. The ideal measure would be the percentage of a country’s physical assets that are owned and operated by the private sector, but that information is not available. Hence we take privatizations in relation to public investment in previous years, since presumably this variable is related to the capital stock held by the public sector when the process began.

**Labor legislation.** The flexibility of legislation is considered in five respects, each of which is qualified with objective criteria on a discrete 0 to 2 scale: (i) hiring, (ii) costs of dismissal after one year of work, (iii) costs of dismissal after ten years of work, (iv) overtime pay, and (v) social security contributions.

* Similar methodologies for constructing indices (of policies and other variables) have been used recently by Thomas and Wang (1995) and by Hall and Jones (1996), among others.
aspects of supervision and regulation considered, because as is recognized, such forms of government intervention are required to avoid, or at least moderate, the inefficiencies to which an inadequately monitored financial system may give rise.

According to the results of this index, structural reforms in Latin America have shown remarkable and sustained progress during the past decade. With a maximum value of 1, the index reached only 0.34 in 1985, reflecting the predominance of policies of intervention and regulation as opposed to free market policies. This situation was not only a legacy of development strategies from past decades, but largely the result of emergency measures taken by countries since 1982 to deal with the debt crisis and its repercussions on external and fiscal variables and on income levels within countries. By 1995 the index reaches a value of 0.62, as a result eliminating restrictions and simplifying the rules under which markets operate. The change reflects the magnitude of the shift in direction, but the fact that the index is substantially below its maximum value of one makes it clear that there is still room for improving the region’s structural policies, in terms of both policy areas and countries (Figure 26).

The potential for liberalization that existed in 1985 has been utilized quite intensely in the trade and finance areas (although in this latter field there is significant potential for improvement in the regulatory and supervisory systems of some countries). The same has not been the case in the other areas. Due to the heterogeneity of some aspects of tax structures and the different needs for tax resources in various countries for historic reasons or because there are other sources of fiscal resources, it is difficult to achieve progress in this index comparable to that made in trade and finance policies. Room for future progress lies mainly in improving collection and in broadening some tax bases; in some countries doing so would also make it possible to cut current tax rates. Progress in the area of privatization has been limited, because efforts have been concentrated in a few countries. Finally, in many countries little advantage has been taken of the potential to make labor systems more flexible and improve the operation of the labor market (Figure 27).

All countries of the region without exception display better policy efficiency indices in 1995 than ten years previously. Nevertheless, the timing and pace of the reforms has varied from country to country. Table 4 classifies the countries in four groups according to their initial and final situation in comparison with the average of the region. The early and sustained reformers are those with indices above the average at the beginning and the end of the ten years; these include Argentina, Chile, and Jamaica. The gradual reformers—Colombia and Uruguay—also had indices above the average at first, but have displayed a slower reform process than the early reformers. The countries in these two groups had good structural policies in comparison with the region in 1985–86, and

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6 For example, with regard to the maximum personal income tax, the highest level is 73 percent (Dominican Republic in the eighties) and the lowest is 0 percent (Paraguay and Uruguay today), while the usual is 30 percent.

7 Owing to the scarcity of labor reform in the region, it is debatable what is the potential for reform in this area. Both in this and in other areas, a policy comparison with other regions of the world would help place in perspective the feasibility of further reform as well as evaluate the magnitude of reform already carried out in the region.
In sum, the reforms have made it possible to appreciably raise the quality of policies, but significant possibilities for further reform still remain, especially in taxation, labor, and privatization policies. Inasmuch as the depth and pace of reforms have varied not only by category, but also across countries, it is now possible to discuss the effects that various reforms have had in different countries.

**THE RESULTS**

The region’s economic and social performance has improved in comparison with the last decade, but it is far from satisfactory. Is that despite, or because of, the reforms? In particular, is the fact that economic growth has not returned to the rates common in the sixties and seventies, evidence that the reforms have been the wrong prescription? Or have their effects been insufficient because not enough time has passed, or because they are incomplete?

**Greater Economic Growth**

The evidence presented in this section shows that without the structural reforms of the past decade, per capita income in Latin America would be 12 percent lower and the potential for GDP growth in the future would be 1.9 percent lower than it is at present on average in the countries of the region. Without the reforms, overall productivity of labor and capital would have continued to fall...
as had been the case since the seventies, and investment rates would have been mired at levels averaging less than 17 percent of GDP. But the reforms set in motion thus far are insufficient for returning to the growth rates of the past (around 5 percent), let alone for achieving the levels common in East Asia (over 7 percent). With current policies, the region’s economies can aspire to grow on average at only a 3.8 percent pace, partly because the structural reforms have not been complete.

Yet even with further reforms the region could aspire to only a 5.5 percent annual growth. The greatest obstacle to the future growth of the region is the lag in educational effort, which limits both the pace of accumulation of factors and their productivity. One more year of schooling of the labor force, above current trends of this variable in the next decade, could gradually raise growth to a rate of 6.5 percent. By combining better economic policies with greater educational effort, per capita income in Latin America within a decade could be 20 percent higher, and in two decades, 50 percent higher, than it would be without such strategies.

Reforms Accelerated Growth

A simple graphic comparison between changes in the structural policy index during the past decade and changes observed in the region’s economic growth suggests immediately that the structural reforms have had a decisive impact on growth (Figure 29). Where growth has accelerated most, is where the greatest advances were made in policy reforms. Nonetheless, the relation is not totally close (and there are cases of a slowdown in growth, despite improvement in structural policies), suggesting that other factors may have influenced the pace of growth.

Accordingly, in order to adequately evaluate the effect of the reforms on growth, a more rigorous analysis is required. Growth depends not only on structural policies, but also on the macroeconomic environment, the international context, and various other factors such as per capita income, workforce education level, income distribution, and the quality of government institutions.

The influence of these factors has been examined extensively in recent research covering the performance of a wide range of countries over relatively long time periods.8 For Latin American countries as a group in the past decade, economic growth has depended very significantly on the macroeconomic environment (measured in terms of the level and volatility of inflation) and on the education level of the workforce. These results are based on an econometric analysis of 19 countries of the region in which the growth experience is related (over three-year periods) to its possible determinant factors.9 A decade is a rather short time horizon, and twenty-some countries a rather small number of cases, for detecting the influence of structural factors that are quite significant but that show little variation over time or among countries as similar as those of Latin America. The possibility cannot be ruled out that factors like the rule of law, the effectiveness of the judicial system, and the quality of other public institutions are constraining Latin America’s growth, as suggested by long-run studies encompassing countries from different regions of the world.

Before analyzing the influence of economic variables as such, it is important to highlight the importance of education as an explanatory factor for growth. Although education is also a structural variable, whose influence may be difficult to appreciate in growth rates during disruptive periods, it emerges as a powerful factor for explaining the differences in performance between countries during this period. On average, for each additional year of schooling of the workforce, average annual growth rises by between 0.6 and 0.8 percentage points. Since there are differences of up to four years in the education level of the workforce between some countries and others, those countries where educational levels are worse (Brazil, Guatemala, Nicaragua) have as a result of this factor alone a disadvantage of between 2 and 3 percentage points in their annual growth in comparison with the

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9 A more complete explanation of the methodology and results is presented in Appendix 1.
countries with more years of schooling (Argentina, Chile, Uruguay). The widely varying growth rates of the region largely reflect educational differences across countries, which will have to be reduced in order to narrow the income and growth gaps among them.

By isolating the effect of structural factors like education from other economic variables like inflation, which also affect growth, it becomes clear that structural reforms have raised the region’s growth rate by 2.3 percentage points.¹⁰

Without the reforms adopted throughout Latin America during the last decade, instead of the mean growth rate of 3.8 percent observed in recent years, average rates of only 1.5 percent a year would have been attained. For a country that has pursued a typical reform process, its current income level is 12 percent greater than it would have been without the structural reforms. The structural reforms thus prevented per capita income, which had been falling in the first half of the eighties, from continuing to drop (see Figure 30).

Rapid Effects

Contrary to common belief, these positive effects on economic growth were not long in coming, and tended to be greater in the short than in the medium run. Indeed, in the first three years after reforms were adopted, economies experienced temporary booms whose intensity depended on the magnitude and composition of the reforms, as we will see later. Of the 2.3 points of further growth resulting from reforms up to the 1993-95 period, between 0.4 and 0.5 points were of a temporary nature for the entire region (and the figures were much higher in countries with more recent reforms). This has been made possible by the unused productive capacity existing at the time of the reforms and the one-time gains in productivity levels, since distortions caused by previous policies were reduced or eliminated.

However, most of the growth effects are permanent, not transitory, in nature. According to calculations listed in Table 5, the region’s average permanent growth rate has risen 1.9 percentage points (between 1987-89 and 1993-95) thanks to the reforms. Since this is a permanent rise in growth, its effect will be very noteworthy as time goes on, although it looks very modest at the outset. In a decade, it would entail a further 20.7 percent gain in per capita income, and in two decades, a gain of 45.7 percent.

Macro Stabilization Generated Growth

Besides the structural reforms, greater macroeconomic stability has also helped spur growth: both lower inflation and less volatile inflation are favorable to growth. Taken together, both factors have increased the region’s average growth by 0.5 points, and hence the combined effect of stabilization and the macroeconomic reforms has been that growth has risen by 2.8 percentage points a year (including the estimated 0.4 or 0.5 points of temporary effect for the 1993-95 period). Macro stabilization has also had rapid, partly transitory, effects on growth, giving rise to boom periods. For the 1993-95 period, about half the growth generated by macroeconomic stabilization was transitory in nature. Several factors are at work here. From the standpoint of the economy’s productive resources, falling and less volatile inflation makes it possible to reallocate toward productive activities resources previously devoted to avoiding the costs of (and making occasional profits from)

¹⁰To assure consistency with the most detailed description of the effects presented below, this calculation has been obtained by combining the effects of each reform area on economic growth through its impact on productivity and investment, in accordance with a simple breakdown model of the sources of growth, as explained in Appendix 1 and in the results of regressions 1.7 and 1.11. Nonetheless, the aggregate estimates are very similar if growth regressions 1.1 or 1.3 are used directly. The estimates are robust to a great diversity of variables and to the selection of subperiods. More importantly, the results do not depend on whether the regressions include external variables such as world trade, the terms of trade or interest rates, or internal variables such as the level of initial income, the drop in the GDP during the debt crisis, or the behavior of the real exchange rate. Appendix 1 describes the control variables used.
the unpredictable changes in the prices of goods and assets. This reallocation of resources is tantamount to a one-time gain in the productivity of factors. From the demand standpoint, macro stabilization brings about recovery of expenses that translates into a temporarily accelerating growth, because confidence improves, market signals become clearer, and the inflationary tax is cut or eliminated. When stabilization is based on the exchange rate, the relative drop in prices of imported goods creates a powerful stimulus for the purchase of durable goods, for both investment and consumption, and that translates into a temporary spending boom.

Alongside these transitory effects, macroeconomic stabilization and structural reforms have augmented Latin America’s ongoing growth by approximately 2.2 percentage points. Most of this effect (1.9 points) is attributable to the structural reforms, not to stabilization. That implies that the distortions resulting from the average inflation in Latin America in the mid-eighties were less significant than those caused by trade and finance restrictions and others of a structural nature. In fact, countries have made macro stabilization their first priority, and only then carried out reforms, often gradually. Tackling stabilization early was necessary for partially recovering growth, and may also have created the political and technical conditions needed to begin the reform process. 11 Hence stabilization may have contributed indirectly to raising permanent growth, much more than our estimates suggest.

Although the extra 2.2 points of annual growth attributable to stabilization and reforms may seem modest at first glance, it means that per capita incomes will be one fourth higher after ten years (or double after 32 years), as opposed to what they would be under the previous macroeconomic and structural policies. Similar results have been found in other studies or when different methods of calculation are used (see Box 2). In previous studies, however, the effects of stabilization could not be distinguished from those attributable to the reforms, due to the absence of direct policy indicators.

The favorable impact of reforms on economic growth in the past decade does not necessarily explain Latin America’s growth in previous decades. The structural policies of the sixties or the seventies would surely rate relatively low on the index used in this study, and that would seem inconsistent with the high levels of growth at that time. Other factors may have contributed to greater growth in the past, especially the more rapid workforce expansion and improvements in education. Perhaps a more interventionist economic model was appropriate at that time, given the international trade and financing context, the behavior of investors, the slower pace of technological change, and the state of institutions. This study does not claim to shed light on that important question.

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Trade and Finance Reforms Had Greatest Impact

Because this study presents structural policy indicators by areas of reform, it is also possible to estimate the contributions to growth from each area. Trade reform had the greatest impact because that is where reforms have advanced farthest, and also because trade distortions severely diminish economic efficiency, as is well documented (see Box 3). The ongoing gain in growth attributable to the trade reforms carried out since 1987-89, according to our calculations, is 0.8 percent on average for the 19 countries (or 1.1 percent if it is weighted for the GDP of each country). In addition, trade reform is the only

12 The average effect of trade reform on permanent growth is less than that calculated by Sachs and Warner (1995) on a world level. According to those authors, open economies grow 2 to 2.5 points faster than closed economies. Note, however, that the trade opening was already moving along in some countries of the region at the beginning of the period we are analyzing, and has not yet been completed by others, and hence our average estimates are lowered.
Finance reform has also had a considerable effect on permanent growth. We estimate that it has helped raise permanent growth by 0.8 points (0.5 when weighted), confirming also the importance attributed to the development of financing in studies done on a world level (see Box 4).

The growth effects of two other structural policy areas have been more modest: from tax reform 0.2 points, and from privatization 0.1 points. This is partly due to the fact that progress in these reform areas has been more limited, and partly because they are less effective for increasing growth. The labor reforms, which are very meager, have had no significant aggregate effect. Their potential effect is great, however, because countries with flexible labor systems tend to grow more rapidly than those with rigid systems. 13

The main finding is that both greater trade distortions and variability in the real exchange rate have statistically important negative and economically large effects on economic growth in this broad sample of developing countries.

Another very relevant study is that of Sachs and Warner (1995), analyzing which factors determine that there is a trend toward the "convergence" of the per capita incomes of different countries (which means that at lower income levels growth rates must be higher, as the neo-classical theory on growth postulates). It utilizes a sample of 117 countries classified into two groups: those that protected property rights and kept trade open during the 1970-1989 period and those that did not. They find that these are sufficient conditions for the trend toward convergence to be fulfilled and that on average those countries that allowed a trade opening have tended to grow from 2.0 to 2.5 points more than others.

These two studies leave open the direction of causality between growth and opening. There are several mechanisms that could imply a positive effect of growth on opening, or through which other factors would push both opening and growth in the same direction. If these factors are a cause of the positive correlation between opening and growth, the argument in favor of an outward orientation as a policy for driving growth would be weakened. A recent study by Frankel, Romer and Cyrus (1996) took up this issue and corroborated that there is a strong positive correlation between the outside component of opening and economic growth, thereby implying a causal direction consistent with the policy interpretation mentioned earlier.
A very substantial portion of the permanent increase in growth (1.9 points) has arisen from a more efficient use of productive resources. Indeed, 1.7 points of this average increase (or 1.5 if weighted by country size) has been the contribution of total factor productivity. This means that the previous interference in the operation of markets was an obstacle to the efficient use of productive resources, to improvement of production technologies and practices, and to taking advantage of economies of scale. Note, however, that the reforms have simply halted the process of declining productivity, but productivity levels for the region on average have not significantly increased. Thus, the estimated average for the growth rate of all productivity of factors for the 1993-95 period is 0 (with a typical deviation of 1.2 points up or down). Likewise, the estimated average labor productivity growth is only 1.2 percent a year, lower than the historic rates of the sixties or seventies. Hence, the pace of productivity “gains” that the reforms have achieved is sustainable indefinitely into the future and could improve considerably, as we will see.\(^{14}\)

The reforms primarily responsible for improving conditions of production have been those in trade and finance (1.5 points of the total of 1.7 points is attributable to these two reform areas). High tariffs with a great deal of spread and the various restrictions on imports were an obstacle to productivity because they hindered international competition, limited the mobility of productive resources and the adoption of new technologies, and encouraged insider deals and corruption, distracting efforts and resources from socially productive activities. Furthermore, controls on interest rates and on the free allocation of financial resources limited the financing of profitable projects and adequate evaluation and management of investment risks. In terms of productivity, these costs were defeating the possible benefits of protecting new industries or domestic technologies, creating national markets, or guiding productive resources toward high priority activities.

Tax reforms have made a positive but limited contribution (0.2 points) to the growth of factor productivity. This may partly reflect the more limited progress in this reform area and partly the fact that distortions in resource allocation for tax reasons may be less than those caused by constraints on international trade or on the operation of the financial system (a matter on which studies are lacking in Latin America).

The aggregate indicators of productivity do not reflect any effect of privatization. This finding is not very conclusive, and it leaves room for future research. The magnitude of privatization may still be too modest to affect productivity at the aggregate level. It is also possible that the new investments generated by privatization (to which we refer later) will take time to mature and that their benefits in terms of productivity cannot yet be seen. But it is also probable that the indicator used to measure privatization does not allow the most important facets of the process to be captured, such as the generation of competition and the reduction of inefficiencies in the old state enterprises. These effects may have been rather high for the enterprises sold at low prices, and vice versa.

In addition to the structural reforms, macroeconomic stabilization has also helped increase the contribution of productivity to permanent economic growth. The levels of inflation prevailing in the mid-eighties lowered productivity growth by 0.3 points a year. It is not clear what further prejudicial effect the volatility of inflation may have had on permanent productivity. The most recent study on the matter on a world scale also finds that the level of inflation has more harmful effects on productivity and long-run growth.\(^{15}\) But such costs certainly exist, and in any case, reducing the volatility of inflation generates significant if temporary gains in growth.

### Positive but Modest Effect on Investment

The recovery of productivity has been the main channel through which the reforms have accelerated permanent growth. Figure 31 shows the impact of various structural reforms on productivity and investment. The figure indicates that trade reform and financial reform have been the most significant contributors to productivity growth. Privatization and labor reform have also played a role, but their impact is smaller.

14 This point is important in the light of the experience of Southeast Asian countries, whose rapid growth has been based primarily on accumulating factors, not on increased productivity (see Kim and Lau, 1994; and Young, 1994).
15 This is Barro’s study (1997), which uses information for some 100 countries with data from 1960 to 1990.
Smoothly functioning financial markets can stimulate growth in a variety of ways. Because there are economies of scale and scope in the functions of gathering information, monitoring performance, and assuring that contracts are fulfilled, specialized financial institutions tend to reduce the costs of transforming savings into investments. By bringing together the assets of many individual savers, such institutions can finance profitable projects that otherwise would not get underway because of their size, their level of risk, or their slow period of maturation. By combining these assets, specialized financial institutions can reduce people’s exposure to the risks of liquidity and the risks inherent in each individual project if they were financed directly. A smoothly operating financial system can spur economic growth by increasing the productivity of new investments and of fixed capital. To the extent that a greater variety of assets, adjusted to their desired combinations of risk and return, is made available to savers, the possibility of moving greater resources from saving toward investment increases.

Financial policies can make it easier or more difficult for the financial system to contribute to growth. In particular the combination of policies identified as “financial repression” have resulted in diminished mobilization of savings and have reduced the efficiency of investment with the corresponding negative implications for growth. To test such claims, recent research has explored the empirical relationship between financial “deepening” and economic growth.

In the section motivating this study we posed four alternative hypotheses for evaluating how effective the reforms have been. Which of these initial hypotheses is most adequate now that the effects of structural reforms are fulfilled.

Box 4. Financial Sector and Economic Growth

King and Levine (1993 a, b, c) have made valuable contributions in this direction. These authors used four alternative measures of financial depth: the ratio of liquid liabilities of the financial system to GDP, the percentage of credit allocated by the banks (not by the central bank), the percentage of domestic credit received by the private sector, and the ratio of credit to the private sector in proportion to GDP. They examined to what extent these indicators help explain long-term economic growth, the investment rate, and total productivity of factors. In a sample of 77 countries with data for the 1960-89 period, and bearing in mind the influence of other variables on growth, they find that all indicators of financial depth have positive and statistically significant effects on those variables, and that the relationships operate from the former to the latter. This is very solid evidence that financial depth influences long-term economic growth, both through greater accumulation of resources and through productivity.

King and Levine’s conclusions find support in other works (for example, Roubini and Sala-i-Martin, 1992 and De Gregorio and Guidotti, 1992). However, De Gregorio and Guidotti (1995), also using cross-section regressions, have found that the relationship between financial depth and economic growth varies considerably between countries, and was negative for Latin America between 1960 and 1985. They blame the inadequate regulatory environment in which the first efforts at financial liberalization took place.

In a more limited way, the reforms have also increased growth through greater capital accumulation. Indeed, as a result of the reforms, the region’s average investment rates have risen by 1.7 points of GDP (or 2.3 points when weighted), which means a growth rate 0.2 points higher (0.4 points when weighted), bearing in mind the capital intensity in the region’s economies.

Two reform areas have produced increased investment, namely, trade and privatization. The effect of trade reforms has been greater, 1.1 points on average (or 1.4 points when weighted). Privatization has a considerable impact (0.6 on average, 0.9 when weighted), especially in view of the fact that progress in this reform area has been rather modest for the average in the region.

In the section motivating this study we posed four alternative hypotheses for evaluating how effective the reforms have been. Which of these initial hypotheses is most adequate now that the effects of structural reforms on production, income, and employment growth have been evaluated? First, there is no evidence that the reforms have been the wrong tool from the standpoint of production and income, because the strategy of making room for markets to operate freely has been conducive to improvements in productivity, investment, and economic growth. Nor are there grounds for holding that although the reforms are suitable, their effects can only be appreciated with the passage of time. The effects of the reforms have not only been rapid, but they have even been greater in the short than in the medium run. That does not, however, rule out the possibility that over a longer time period, the effects seen thus far may tend to decrease. 16 Sachs and Warner (1995) estimated that the opening to international trade raises the investment rate by 5.4 points. The results presented in Appendix 1 indicate there would be a 4.8 point increase in the investment rate in a country improving its trade policy index from 0 to 1.
Little Employment Growth

The reforms have led to the recovery of growth and productivity and have stimulated investment. What has been their effect on employment? The answer is that they have slowed the pace of employment growth and may have been one cause of the rise in unemployment rates. The reforms have led to a recovery of the capital-labor ratio, which, because of rigidities in the labor market, has been associated with a slower rate of job creation. Deeper reforms leading to higher growth rates may again boost the employment growth rate, especially if lack of reforms in the labor market is addressed and it becomes easier for workers to move from one job to another.

The rate of economic growth and the behavior of real wages are the two main macroeconomic variables that influence the pace of employment growth. The response of employment to the first of these variables is affected, among other things, by the flexibility of labor markets. In Latin American countries which have more flexible labor legislation (as defined in Box 1), at a given level of real wages, a rise in the rate of GDP growth is reflected in a proportionally greater rise in the rate of employment growth. In countries where rigidities are higher, that relationship may be reduced to a third or a quarter.

Whatever the degree of labor market flexibility, structural reforms should have produced an increase in the employment growth rate, because they have had a favorable effect on economic growth. But that has not happened. Employment growth rates have declined, and that has happened more forcefully where the structural reforms, and particularly trade and finance reforms, have been deepest. Because the reforms have simultaneously enabled investment to recover, the upshot has been an increase in the capital-labor ratio.

In itself, this is something desirable. The amount of capital per worker had declined continually since the debt crisis, because the shortage of foreign exchange and internal and external financing were hindering investment (Figure 32). The meager economic growth therefore had to be based on expanding employment. Inasmuch as productivity tended to fall under such conditions, so also did real wages tend to fall. The recovery of the capital-labor relationship has reversed those conditions, making possible productivity increases which by now have partly translated into better real wages. The recovery of growth, productivity, and incomes might not have taken place without the increases in the capital-labor relationship.

What is undesirable is that the increase in the capital-labor ratio has been associated with an average 0.3 percent decline in employment growth. The cumulative effect of this decline explains practically all the rise of the unemployment rate from 5.6 percent to 7.2 percent in the region between 1989 and 1995. The aggregate statistics used in this study do not allow any greater precision about the reasons for this phenomenon. It may have happened because jobs have disappeared more rapidly due to the restructuring of production prompted by reforms in various sectors, and not enough new jobs have been created because of the difficulties of workers in finding employment and relocating. Insofar as the adjustments are of this nature they will tend to decline over time. But it is probable that the phenomenon is reflecting more structural rigidities in the labor market, which hinder the arranging of labor contracts or changing of pay practices that would have to take place as part of restructuring certain sectors.

There is no reason why the increase in the capital-labor ratio has to weaken the pace of employment growth. That it has happened is an indication of temporary mal-
adjustments or of more structural rigidities in the labor market. In any case, it would be a mistake to conclude from the foregoing that the reforms have been a mistaken strategy. Rather it should be concluded that in view of the benefits produced by growth, productivity, and investment, the reforms made should continue and should be complemented by others that will remove the restrictions on job creation and facilitate the process of matching labor supply and demand.

Unexploited Potential for Reforms

In the areas of production, productivity, and investment, the reforms have had effects in the desired direction, and they have also come about quickly. But the pace of economic growth is still not satisfactory. It has not returned to the pace of the past nor of that of the recently industrializing economies of East Asia, and it has not been high enough to lower unemployment rates. That may be because the reforms have been incomplete, either because they have not been deep enough, or because they have not encompassed all the areas that they should include. What can the evidence from Latin America and other regions in the world tell us in this regard?

It is true that the market reforms have not been deep enough. The reforms have already contributed around two points to the permanent economic growth of the region, but they could contribute between 1.2 and 1.6 points more (Table 6). If within five years all the countries were to make improvements in those policy areas where they are below the four leading countries in each area (so as to place themselves exactly at the level of the fourth country), the results would be encouraging. The potential growth rate of the region would go from its current 3.8 percent to 5 percent starting in 2002 (or from 2.9 percent to 4.5 percent if countries are weighted by their GDP). With a gradual reform process the region’s growth could follow the pattern described in Figure 33 (which also includes greater stabilization; see below). Faster reforms would produce more immediate results.

Per capita income may be greatly affected by whether or not the reforms still pending are carried out. The current per capita income level of 3000 dollars (in 1996) would be over 4200 dollars within 10 years if the reforms were completed, or would reach a maximum of 3700 dollars if they were maintained with no change in present policies (see Figure 34).

By itself, further financial reform could contribute around 0.5 additional points to permanent economic growth. Although this has been a significant reform area, progress has been uneven between countries, and much greater in the area of liberalization than in improving supervisory systems and adopting modern legal frameworks for operations of the financial system. Advances in these areas can improve confidence in financial systems and raise their efficiency, thereby making possible further increases in productivity and investment.

The other policies may also make further contribu-

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### Table 6. Potential Effects of Structural Reforms and Other Factors

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<th>Permanent growth</th>
<th>Productivity</th>
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<td>Weighted</td>
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<tr>
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<td>0.8</td>
</tr>
<tr>
<td>Attributable to past reforms</td>
<td>1.9</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Attributable to lower inflation</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>With more structural reforms</td>
<td>5.0</td>
<td>4.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Trade</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Tax</td>
<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Finance</td>
<td>0.4</td>
<td>0.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Privatizations</td>
<td>0.2</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Labor</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>With greater macro stability</td>
<td>5.5</td>
<td>5.2</td>
<td>2.3</td>
</tr>
<tr>
<td>With greater effort in education</td>
<td>6.5</td>
<td>6.7</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Source: Lora and Barrera (1997).
tions to permanent growth. Although the trade reforms have been very effective, in most of the countries there is not much room for making substantial improvements in trade regimes. Tax reforms and privatization can advance substantially in many countries, generating on average and in combination a further 0.4 points in growth.

The potential of labor reforms is largely a question mark. No country has made deep enough labor reforms and hence it is difficult to offer an opinion about this area. However, inasmuch as labor regimes vary between countries (even though they may have changed little over time) there are econometric grounds for stating that more flexible labor policies would contribute to raising productivity and growth significantly. On this basis, it can be very tentatively estimated that labor reforms can contribute a further 0.3 points to growth in the region. The effects may be greater in those countries where informal procedures or inflation do not operate as de facto mechanisms for loosening labor rigidities. More flexible labor markets in a context of greater growth can facilitate the absorption of unemployment. That has not been achieved thus far because the more rapid loosening of other markets has resulted in a bias against job creation.

All these results come from combining the effects that additional reforms would have on productivity and on the investment rate (summarized in Table 6). If the potential for reforms were exploited, average productivity could rise by 1.8 percent a year (or 1.3 percent, weighted). The investment rate would also rise from the 19.5 percent expected from current policies, to 20.6 percent of GDP (or from 19.1 percent to 20.2 percent, weighted). Greater productivity and investment levels would bring the growth rates of the entire region close to the potential that Chile has already shown (Figure 35). Investment rates of around 20 percent are unlikely to be compatible with sustained growth of 5 percent or more.17 Nevertheless, higher growth rates could possibly raise investment rates further, as has usually been observed.18

Macroeconomic stabilization is relatively advanced in most countries in the region. Nonetheless its po-

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17 Chile’s investment rate in the 1993-95 period was 32.7 percent.
18 This relationship is not incorporated into our estimates but it has been amply verified in a number of studies on investment in Latin America. See Cardoso (1993), Corbo and Rojas (1993), Rama (1993), and Sever and Soliman (1992).
stantial contribution to the further growth of the entire region may still be substantial: 0.5 points for the simple average of the countries, or 0.7 points for the weighted average. The highest individual contributions would occur in Brazil (1.4 points), Venezuela (1 point) and Jamaica (0.9 points), in all instances as compared with their situation in 1995. In addition, attaining and maintaining macroeconomic stability may be a requirement for deepening the reform process.

Taken together, deeper structural reforms and greater macroeconomic stability could bring the region from 1.7 to 2.3 points more in annual economic growth (depending on whether calculations are made with simple or weighted averages). These further growth potentials derive from the comparative experience of Latin American economies during the last decade. It is useful to inquire whether they are reasonable in the light of international experience. The answer cannot be entirely precise, because structural policy indices such as those presented in this study are not available for other regions of the world. Nevertheless, the outcome variables in different areas (inflation, government consumption, financial depth, exchange rate unification) can be used as overall indicators of the quality of macroeconomic and structural policies, and for examining whether differences in growth between the countries of Latin America and those of other regions of the world are due to economic policies. As in the previous comparative analysis of Latin American countries, the influence of other factors on the economic growth of the countries must be controlled. The answer obtained is very consistent with the foregoing: if the macroeconomic and structural policies of Latin America between 1991 and 1995 had been at the level of the countries of East Asia, growth of the average country would have been between 1.4 and 2.5 points higher (according to the average used; see Box 5).

Will the countries that adopt more intense reform programs reap the same benefits as those that have already carried out reforms? First, there may be major differences in the capacity of their respective public sectors to design and implement reform. This point is of the greatest relevance because (as shown in Appendix 1) reforms have produced the greatest benefits in those countries that, from the outset, had the most efficient public sectors-meaning those countries whose governments were less corrupt, operated with more straightforward procedures, and had more efficient judicial systems. In Chile, the country with the best public sector of the region, an identical reform package could produce an effect on growth 50 percent greater than the region’s average. Although it may seem paradoxical at first, this suggests that reform of the State is an essential component in the market reform process. And this is because markets are institutional arrangements that require the adoption of rules, and the support of government agencies to ensure that the rules are observed for the collective good. Accordingly, the efficacy of future reforms may be reduced if the countries do not concurrently undertake efforts to correct deficiencies in the State apparatus.

For Higher Growth, More Education

But improving the quality of macroeconomic and structural policies would only make it possible to increase the average rate of growth to around 5.5 percent. Within this average some countries would still have rates close to 4 percent, and the sustained rates higher than 7 percent that have been observed in East Asia would not be attained. What further constrains the region’s growth rates is the education level of the workforce, a very important determinant of growth and productivity. The average level of schooling of Latin America’s workforce has risen in the nineties by 0.9 percent annually, and is currently at 5.3 years on average (or 4.9 if weighted by population). This growth rate is much lower than what it was in the sixties (1.6 percent), and than the prevailing rates in the rapidly growing economies. For example, the four Asian tigers (Korea, Taiwan, Singapore, and Hong Kong), have registered education growth rates of around 3 percent constantly for three decades. As a result, Latin America’s workforce now has two years’ less schooling than it should have according to world patterns and its own development level (Figure 36).

Latin America’s growth potential could rise substantially if during the next ten years an effort were made to raise the average level of schooling of the workforce by one year (above current trends). This would mean reaching 6.8 years of average education (or 6.4 weighted) instead of 5.8 (or 5.4), the result to be expected from cur-

19 The control variables used are per capita income and education levels, the terms of trade (that is, the relationship between export and import prices) of each country, and the growth trends of the world economy (expressed in dummy variables by period).
20 As measured by Business International for 17 Latin American countries; data taken from Mauro (1995).
21 Compare the policy index rate of regressions 1.1 and 1.2 in Appendix 1. Our estimates, however, do not use this result because it covers a limited number of countries and is not totally robust, given that there is a strong correlation between government quality and years of schooling of the workforce.
rent trends. As has been estimated in other studies, such an effort is feasible given current levels of spending on education.\(^{23}\)

This additional effort in education would make it possible to raise by 1 point the average potential ongoing economic growth in the next decade (and the weighted average by 1.5 points). In other words, it would be equal to approximately half the permanent effect of all structural reforms to date, or to the still unexploited potential of those reforms. The estimated impact of education on growth for Latin America is within the range of other international estimates, which support the new theories of growth in which human capital plays a central role (see Box 6).

Box 5. Differences in Growth between Latin America and East Asia

Differences in growth between Latin America and the countries of East Asia have been notable and sustained: approximately 5 points a year during the first half of the nineties in favor of East Asia. The factors explaining these differences have been calculated through econometric studies where economic growth depends on economic policies, but also on factors such as education level, per capita income level, and other permanent or temporary factors.

For Latin America as a whole, about half of its huge growth gap with East Asian economies is explained by the quality of their macroeconomic and structural policies, that is, by the fact that the region’s stabilization and reform process is incomplete. According to these estimates, were Latin America to catch up with East Asia in policy outcomes, the difference in per capita growth would decline over the long run by two and a half points. Based on these same estimates, further improvement in policies would be comparable to what has been accomplished between the second half of the eighties and the first half of the nineties.

The methodology supporting these calculations does not provide grounds for concluding which policies have led to different outcomes in particular areas of economic management. Strictly speaking, they only make it possible to conclude that policies are needed, for example to achieve greater financial depth or greater international opening, but not what they would be. In some Southeast Asian countries effective use has been made of a number of kinds of state involvement and leadership that would not necessarily be replicable in other economies. Likewise, some of the liberalization policies that have been successful in Latin America may not be suitable elsewhere.

But economic policies do not completely explain the differences in growth between Latin America and East Asia. The educational deficit in Latin America explains approximately another half point of this difference. The per capita income level favors Latin America by approximately 0.3 points of growth in comparison with East Asia, because where income is lower there is a greater potential for taking advantage of resources and developing untapped productive capacities. Other structural differences between the countries of Latin America and East Asia may explain a further half point in differences of growth. Among the factors behind this outcome should be mentioned income distribution, factor endowments and geographical location. In addition, quality of government, respect for law, and property rights and other institutional characteristics of countries that various studies have found to influence growth (Asian Development Bank, 1997; Barro, 1997; Knack and Keefer, 1995; Mauro, 1995) may also have had an influence. Finally, the rest of the difference between the growth of Latin America and that of East Asia should be attributed to individual transitory factors in the various countries (not of the world economy).

Why Does East Asia Grow More Than Latin America? (Difference in annual growth points, based on the 1991-1995 period)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Because the countries of East Asia have:</td>
<td></td>
</tr>
<tr>
<td>Better economic policies</td>
<td>2.5</td>
</tr>
<tr>
<td>More education of the workforce</td>
<td>0.5</td>
</tr>
<tr>
<td>Initial higher per capita income</td>
<td>-0.3</td>
</tr>
<tr>
<td>Other more favorable structural factors</td>
<td>0.6</td>
</tr>
<tr>
<td>More favorable transitory factors</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Total: Higher growth of East Asia</strong></td>
<td><strong>4.6</strong></td>
</tr>
</tbody>
</table>


Greater educational effort would spur growth by two means. First, it would directly raise the rate of accumulation of human capital, which is growing more slowly than in the past. Obviously, this effect would be greater in those countries with lower current education levels. Second, it would make productivity rise faster, because not only...

\(^{23}\) Londoño (1996) calculated the required spending increase to be approximately 0.5 percent of GDP over education spending in 1990, to move up one year in average education levels by the year 2000. Between 1990 and 1995, education spending in the region (not including pension spending) has already registered the increase needed (see IDB 1996). Obviously, the question is whether these resources have been allocated to extending enrollment in basic education.
would the labor productivity of individuals improve, but externalities favorable to the overall productivity of all factors would be generated. Indeed, one more year of education for the work force would raise the rate of productivity increase by approximately 0.8 percent a year. It is also possible that a larger supply of qualified labor would be a stimulus to investment, but this is an area in which there is no solid econometric evidence.

In short, the combination of deeper structural reforms in a context of macro stability, along with greater educational effort, can raise the average growth rate of the region to 6.5 percent during the next ten years (6.7 percent weighted by countries’ GDP). Such rates, which today look unattainable, have been surpassed by Southeast Asian countries and are not substantially different from those Chile has already achieved. Miracles can happen again.

Less Volatility

High volatility in Latin America is the result of the external shocks that the region has received, the instability of its macroeconomic policies, and the way its markets and economic institutions operate. Governments should be concerned about volatility because it harms economic growth, disproportionately affects the lowest income groups, and weakens the accumulation of physical and human capital. The structural reforms have substantially reduced volatility because they imposed macroeconomic discipline, made price signals more transparent, made it easier for markets to adjust smoothly, and contributed to the development of financial institutions. Nevertheless, they are no guarantee of stability: there remains a strong potential for internal and external instability and institutional conditions that could aggravate them.

Volatility Can Be Reduced

A major source of volatility of aggregate production, of the real exchange rate, and other macro variables has been the severe external shocks to which Latin America has been subjected. More important in quantitative terms, however, has been the volatility caused by its own economic policies, whose most notorious manifestations are the short term instability of monetary growth and of fiscal results and the frequent changes of exchange rate systems.24

The destabilizing influence exerted by the region’s economic policies has been a result of institutional factors, leading to inappropriate economic policy responses to external or internal shocks. Fiscal policies provide an illustrative case. Instead of smooth shocks, fiscal policies in Latin America have tended to multiply them. Fiscal policy has tended to be pro-cyclical, particularly in times of crisis, when a stabilizing fiscal reaction would have been more appropriate, in sharp contrast to what happens in industrial economies, where fiscal policy tends to be anti-cyclical and stabilizing.25 The reason for such behavior is obviously not any interest in aggravating recessions on the part of authorities, but the instability of fiscal resources and of the sources of government financing, resulting from tax structures, the lack of financial depth, and the fragility of banking institutions, among other reasons.

Structural reforms make it possible to correct some of these sources of volatility. For example, tax reforms have led to broadening bases of taxation, and have reduced dependence of taxes on imports and on luxury consumption, which fluctuate a great deal. Financial reforms have facilitated financial development and in some countries have led to improvements in regulatory and supervisory mechanisms for preventing crises. No less important, reforms have imposed discipline on governments, by reducing their discretionary control over credit, interest rates, and exchange rates. Less discretionary power over macro policies may entail less uncertainty and hence less volatility.

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24 The effects of these factors on the volatility of Latin America has been analyzed by Gavin and Hausmann (1996c) and ILO (1995).
Structural Reforms as a Source of Volatility

These are only some of the ways in which structural reforms can reduce volatility (see Box 7). That is not the whole story, however. Reforms can also give rise to a greater volatility. The reforms in themselves constitute a shock that the economy must absorb. The reforms, like macro-economic stabilization, generally give rise to a phase of booming growth because they enable productivity to recover while at the same time stimulating consumption spending and investment. But this phase can be the passageway to a period of greater macroeconomic volatility, because the boom generates external and fiscal financial weaknesses. The banking system becomes overextended.
### Box 7. Structural Reforms and Volatility

**Volatility may diminish . . . . . . or increase**

**Trade reform**

There are various reasons for expecting an open economy to be less volatile: (i) productive resources are allocated according to international comparative advantages, making it easy to respond to shocks, (ii) there is free access to inputs and imported machinery, enabling productive sectors to adjust quickly, (iii) there is greater capacity for generating foreign exchange, and hence for adjusting to external financial shocks, and (iv) exports are more broadly based, reducing vulnerability to shocks from external prices (Sachs, 1985; Sachs and Warner, 1995).

Nevertheless, in the opposite direction, it can be argued that more open economies (i) are more exposed to external impacts, especially if they specialize in basic products (Rodrik, 1997); (ii) have less discretionary leeway for cushioning external shocks with changes in tariffs or other trade policy measures; and (iii) are more exposed to changes in capital flows.

**Tax reform**

The adoption of simpler and less distorting tax systems tends to lower fiscal and macroeconomic volatility, because it involves (i) replacing taxes on foreign trade with broad-based and stable domestic taxes, like the VAT; (ii) broadening tax bases and reducing high marginal rates on consumption or more unstable incomes; and (iii) bolstering tax revenues and reducing dependence on unstable financial sources, like the inflation tax or short term financing.

But simpler tax systems can increase volatility because they (i) reduce discretionary tax power which can be used for stabilization purposes and (ii) reduce tax elasticity, which the government may utilize to save more in periods of expansion and to dissave in periods of recession.

**Financial liberalization**

There are two sides to financial liberalization: lowering barriers to international capital flows and reducing constraints on the activities of internal financial intermediaries. Both sides can contribute to lower volatility, because (i) external financing can help stabilize consumption and finance increased investment; (ii) freer financial markets impose discipline on macroeconomic policy and make key macroeconomic variables, such as interest rates, transparent; and (iii) financial liberalization facilitates the movement of productive resources and investment decisions.

But there are also well founded fears that liberalizing external and internal financing increases instability, because: (i) international capital may be susceptible to changes in relative conditions of profitability, and to shifts in confidence or other domestic or external factors that are by nature unstable, (Calvo, 1996) (ii) domestic banks face problems of information (difficulty of assessing credit risks, especially in expansionary periods) and of incentives (their own capital is substantially smaller than their liabilities) leading them to take excessive risks. When the results are favorable, they reap the benefits, and when they are not they transfer the costs to depositors and taxpayers; and (iii) these risks are greater in the early stages of financial liberalization when the banks are less capable of weighing and controlling risk and when the regulatory and oversight structure is weak.
Imports grow more quickly than exports. Transitory tax revenues lead to expansions of public spending that become irreversible. The subsequent slowdown of spending can cause all these sources of instability to spring to the surface. The quality of the financial system portfolio may deteriorate rapidly when spending and production slow down. The fiscal situation may be weakened, undermining the confidence of investors and reducing possibilities of external financing. What happens subsequently depends on the magnitude of the vulnerabilities and weaknesses that develop during the expansion, the nature of the political reaction to economic and financial pressures, and luck. In Mexico, to point to a particularly dramatic example, the vulnerabilities caused by the huge credit expansion during the early 1990s were extensive and it was the country’s bad luck to experience a series of political disturbances at a time when the economy had to confront the pressures caused by those weaknesses (IDB, 1996, Part One).

Besides that macroeconomic thrust, structural policies may augment the sources of economic volatility. A greater openness to external commercial and financial flows exposes the economy more to changes in external prices and the vagaries of international capital. The lifting of controls over finance may lead the banks to take on excessive risks, especially in those countries where supervision is inadequate, and where the financial sector is less developed and more concentrated. Under such circumstances banking crises are more likely, and the potential for macro destabilization is greater. The reforms also reduce the set of tools that the economic authorities have for responding to external and internal shocks. For example, tools for controlling imports or the demand for foreign exchange are no longer available, nor are the mechanisms for avoiding fluctuations in interest rates or credit.

Thus, structural reforms may affect economic stability in a variety of ways and may impact differently over time. The empirical evidence below shows what Latin America’s experience has been since the mid-1980s.

**Fears of Greater Volatility Exaggerated**

Although economic instability is far from eradicated, the reforms of the past decade notably reduced the volatility of economic growth and inflation and to a lesser extent that of the fiscal deficit and the real exchange rate. Trade opening and financial reforms were decisive in these outcomes, because they facilitated the operation of markets for goods and factors and helped impose discipline on macroeconomic policies. By reducing volatility, the reforms contributed indirectly to improving possibilities for growth and correcting problems of distribution given their effect on those variables.26

Volatility tended to decline more in countries that also carried out greater structural reforms, while it held steady and even increased where reforms were lesser (Figure 37). Costa Rica and Trinidad and Tobago are two isolated cases that had very high volatility a decade ago that they have now managed to lower. By contrast, Mexico and Argentina, two countries that recently experienced situations of instability, are not exceptional cases. Mexico, which has carried out reforms gradually, has undergone situations of similar volatility in the past. In Argentina where structural reforms have been greater, GDP volatility has been reduced in comparison with its levels of a decade ago, despite the recession experienced in 1995. In any case, the negative relationship between volatility and structural reforms for the entire set of countries is likewise noteworthy when compared with other periods (see Appendix 3).

The trade opening and the financial reforms were crucial for reducing the instability of growth (and were the reforms that most accelerated ongoing growth, as we saw in the previous section). The greater mobility and transparency that they introduced to markets for goods and factors have made it easier for the economy to adjust to shocks. These favorable effects have more than compensated for the potentially destabilizing consequences

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26 These relations are analyzed in IDB (1995), Part Two.
of the greater exposure of the economies to international trade and financial flows. Thanks to the trade and finance reforms, instability of economic growth has been practically cut in half.

The fact that the reforms have helped stabilize growth is not incompatible with the fact that when adopted they unleashed an acceleration of growth which has been partly transitory. Opening the economy has lifted it to a higher level of production, thereby establishing the basis for more stable growth than in the past. After the initial expansion caused by the opening and lower inflation, many countries have undergone periods of slowing and some have experienced tension and even crisis. Nonetheless, this macroeconomic cycle has led to more stable economic growth rates than were the case prior to stabilization or reform.

No other factor has had an influence comparable to that of the trade and finance reforms in stabilizing the region’s economic growth in the past decade. There is no evidence, for example, that greater fiscal, exchange-rate, or inflationary stability have helped significantly to stabilize economic growth. But it is important to keep in mind that lowering inflation has been a prerequisite for adopting and consolidating the reforms, and thus its ultimate effect on the stability of growth may be significant, especially in those countries that were affected by high inflation. Over a longer time period, greater fiscal, exchange-rate, and inflationary stability may also translate into less volatility of growth. Likewise, there is no evidence that the real exchange rate adjustment caused by greater capital inflow has had any effect (favorable or unfavorable) on the stability of the countries of the region as a whole during the past decade. However, that does not rule out future effects, and it may already have had effects in countries like Mexico. What the evidence does indicate is that, contrary to the usual assumption, this latter case is not typical of Latin American countries as a whole.

The structural reforms have also helped to cut inflation volatility almost by half, perhaps because they have bolstered market discipline and introduced stricter control over macroeconomic policies, thereby inspiring confidence in economic agents. The trade opening has disciplined the prices of saleable goods and deprived the government of policies of protection and control over imports and their inflationary bias. Together with financial reform, the trade opening has broadened access to outside financing, without which the increased imports needed to stabilize domestic prices would not be possible. In addition, the financial reform has imposed discipline on macro policies, since it removed the government’s discretionary power to allocate credit, modify

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**Table 7. What Reduced Volatility** *(In percent)*

<table>
<thead>
<tr>
<th>The volatility of has changed due to Structural reforms:</th>
<th>Growth</th>
<th>Inflation</th>
<th>Money supply</th>
<th>Fiscal deficit</th>
<th>Real exchange rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade</td>
<td>-35</td>
<td>-47</td>
<td></td>
<td>-15</td>
<td>-22</td>
</tr>
<tr>
<td>Finance</td>
<td>-20</td>
<td>-28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less inflation volatility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater monetary volatility</td>
<td>+7</td>
<td></td>
<td></td>
<td></td>
<td>-45</td>
</tr>
<tr>
<td>Less fiscal volatility</td>
<td></td>
<td></td>
<td>-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater volatility of capital flows</td>
<td></td>
<td></td>
<td>+2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total change of volatility due to these factors</strong></td>
<td><strong>-48</strong></td>
<td><strong>-59</strong></td>
<td><strong>-6</strong></td>
<td><strong>-15</strong></td>
<td><strong>-58</strong></td>
</tr>
</tbody>
</table>

*Totals do not correspond to the sums of the cells, but to the product of the terms (1+\(x\)), where \(x\) equals the values of the cells. Source: See Appendix 3.*
reserve requirements, or set ceilings on interest rates. These developments have inspired confidence in the markets, thereby helping reduce inflation volatility.

It is recognized in theory and in fact that monetary volatility translates into inflation volatility (as confirmed by the results reported in Appendix 3). But this factor has not helped reduce the average volatility of inflation throughout Latin America, because monetary volatility has increased in some countries and declined in others. (On balance, the increases outweighed the decreases, although the latter have been important in cases such as Argentina and Brazil.) Monetary anchors have not been at work, because monetary demands in many countries have varied due to lower inflation, the stabilization of exchange rates, and the adoption of structural reform programs. Many countries in the region have based their inflation reduction strategies on totally or partially fixing the real exchange rate (IDB 1996, Part I). That has led some to think that an exchange rate appreciation was necessary to lower inflation volatility. The econometric evidence does not support that hypothesis for the countries of the region as a whole, although it could be valid in individual cases.

As to whether the reforms helped correct the fiscal instability that has been characteristic of Latin American countries, the answer is yes, although the effect has not been notable. Wherever countries have simplified their tax systems and made them more neutral, greater stability has been achieved in fiscal revenues, and that has cut average fiscal volatility in Latin America by almost a fifth. This was possible because dependence on unstable tax bases—like imports, luxury consumption or the profits of some sectors or economic groups—was reduced and gave way to broader and more stable tax bases, such as consumption goods as a whole, and individual and corporate incomes.

Structural reforms have also contributed to exchange rate stabilization in two ways. First, because real exchange-rate instability tends to be reflected in inflation instability, the reforms have had a direct effect because of their influence in stabilizing prices. Second, the countries that have gone furthest in the areas of financial liberalization—cum-supervision have tended to achieve greater stability in real exchange rates. The relationship between financial reform and exchange-rate stability is another example of how structural reforms can introduce confidence and stability in the markets because they take discretionary power away from the government and make macroeconomic signals more transparent.

While structural reforms, and particularly trade and finance reforms, have reduced macroeconomic volatility, the recent experiences of Argentina and Mexico (and those of Argentina, Chile, and Uruguay in the early eighties) are a warning against interpreting such results mechanically. No structural reform, no matter how deep or how well conceived, can eliminate the sources of macro instability, especially if the economic authorities are not willing to admit the discipline (and rigors) that freer markets tend to impose. Moreover, the financial reform process cannot be limited to eliminating restrictions on financial institutions. Designing adequate oversight and regulation procedures is an essential component of good financial reform (and that is the position of the financial policy index used in this study). Not surprising, financial crises have been significantly more likely to occur in those countries that have moved too quickly toward eliminating restrictions without making improvements in oversight. 27

In sum, contrary to usual beliefs, the reforms have not increased economic instability. Nevertheless, because macroeconomic volatility remains high in several aspects, we return to the original hypotheses of this study to ask (i) whether deeper reforms are required, (ii) whether with the passing of time the stabilizing effects of the reforms already carried out will increase, and (iii) whether other policies are needed to achieve acceptable levels of stability.

Can Less Volatility Be Expected?

The variability of the region’s economic growth has moderated, thanks to trade and finance reforms. But these are the reform areas where most progress has been made, and hence only a modest further reduction could be expected in these directions. If both reform areas were to be deepened in the countries where they are least advanced so as to attain the minimum level achieved by the four leading countries, the volatility of growth could be cut by a further 22 percent on average over the region, in comparison with the level of a decade ago (Table 8). But such progress would not be negligible. Economic growth would reach a stability similar to that of the industrialized countries in the first half of the nineties, although somewhat greater than that of the countries of the Asian miracle. Hence, deepening the reforms would make it possible to reach reasonable levels of growth stability. Some of the large countries of the region, like

27 See IDB (1996), Part II, Chapter 4.
Brazil and Mexico could greatly increase their stability by strengthening their financial sectors and improving mechanisms for prudential bank supervision.

Deepening the trade and finance reforms would also reduce volatility in Latin America’s inflation rates, to levels comparable to other regions, and with even greater impact on some of the larger economies. Moreover, deeper tax reforms can continue lowering fiscal volatility, which as far as the fiscal deficit is concerned, has now reached levels close to those in developed countries. All these outcomes will tend to bolster stable economic growth over time. Indeed, those factors that studies have identified as long-term determinants of volatility—such as fiscal volatility, financial depth, and the exchange rate system—have shifted toward greater stability. A notable exception is monetary volatility, which on average for the region continues to be as high as a decade ago, and may jeopardize the stability of future economic growth.

### Structural Reforms Do Not Guarantee Stability

The deepening of reforms over time will help reduce the volatility of output to levels comparable to those of other regions. But that will only be a reality if episodes of macro instability flowing from fiscal, financial, and external vulnerabilities, which tend to occur in times of expansion and rise to the surface during recessions, can be avoided.

In fiscal matters, during expansionary periods surpluses must be generated to strengthen the government’s financial position so that it can respond counter-cyclically in a time of recession, instead of worsening it with abrupt cutbacks in spending due to lack of resources. For similar reasons, the authorities must also prevent the accumulation of short-term debts that may become destabilizing. Fiscal weaknesses can arise in spending cycles driven by electoral considerations or in the process of transferring the central government’s fiscal revenues to other levels of public administration. All these are areas that require the attention of the economic authorities to prevent the reappearance of fiscally caused macroeconomic volatility.

In the finance area, the continuation of reforms may lead to strengthening bank oversight and increasing financial depth, which would help prevent volatility. But financial reform does not exempt the monetary authorities from the role they should assume to prevent the reappearance of the credit increases during which financial crises take hold. Financial reforms must also be extended to areas other than banking, to make possible a greater financial deepening. Especially important is the creation of a suitable legal framework for developing the capital market and generating sources of long-term saving to nourish it. For these reasons, pension system reforms may contribute greatly to reducing macro instability.

With regard to vulnerabilities caused by external

### Table 8. More Reforms May Further Reduce Volatility (In percent)

<table>
<thead>
<tr>
<th>The volatility of could be reduced by further structural reforms in:</th>
<th>Growth</th>
<th>Inflation</th>
<th>Money supply</th>
<th>Fiscal deficit</th>
<th>Real exchange rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade, Finance, Tax</td>
<td>-3</td>
<td>-3</td>
<td>-20</td>
<td>-24</td>
<td>-13</td>
</tr>
<tr>
<td>and by Less inflation volatility Less monetary volatility Less fiscal volatility</td>
<td>-1</td>
<td>-1</td>
<td>-9</td>
<td>-13</td>
<td>-21</td>
</tr>
<tr>
<td>Total change in volatility due to these factors</td>
<td>-22</td>
<td>-28</td>
<td>-1</td>
<td>-13</td>
<td>-21</td>
</tr>
</tbody>
</table>

* Totals do not correspond to the sums of the cells, but to the product of the terms (1+x), where x equals the values of the cells.

Source: See Appendix 3.
forces, movements of the real exchange rate and foreign investments must be watched over to prevent the emergence of unsustainable situations that could lead to destabilizing corrections. The margin of action for exchange rate policy is usually very limited so as to assure external stability, unless it is reinforced with a suitable combination of monetary and fiscal policies to prevent excessive domestic spending and the emergence of differentials between financial yields inside and outside the country.

The final section of this report describes the relationship between policy actions and a number of economic objectives, besides macro stability. That will enable us to delve further into the policy agenda presented here.

**Halt to Worsening Distribution**

Persistent income inequality and slow social progress are major reasons for dissatisfaction with Latin America’s new economic model. After a decade of reform there is no sign in the region that social gaps or the higher levels of poverty built up in the eighties are declining. The reforms have nevertheless been part of the solution, not the problem. The reforms as a whole halted the decline in distribution because they spurred economic growth and reactivated investment. Trade reform by itself also generated a redistribution of income favorable to low-income groups, because it brought down prices of ordinary consumer items and lowered the rents that national producers derived from protection. But the structural reforms have been a very incomplete solution to the problems of distribution, because of the region’s educational gaps. In countries where education is more defective, only a few have been able to take advantage of the new economic opportunities brought by the reforms, and hence concentration has been reinforced. The structural reforms must be deepened in order to make economic activity more dynamic and raise investment rates. But improvements in distribution will be very modest unless Latin America catches up with world standards of education. Beyond that, a complementary effort at redistributing opportunities for investment and for holding assets is also required so that Latin America as a whole may attain the levels of equity that now characterize European or Southeast Asian countries.

**Income Distribution: Worst in the World**

Latin America is the world region where income is distributed most unfairly. The average of the Gini coef- cient of the countries of the region is 0.56, more than 15 points higher than that of developed countries or of Southeast Asian countries, and comparable only to the average of African countries (see Figure 12). After distribution became much worse in the eighties, and despite economic recovery, equity and poverty did not show much progress in the nineties.

The high inequality of income in Latin America has its origins in the level and composition of its productive resources and in the way that they are distributed. In comparison with other regions of the world (and taking into account the different levels of economic development), Latin America has approximately the same relative amounts of physical capital, while it is relatively abundant in natural resources and comparatively poor in human capital. Such conditions are generally associated with greater income concentration. Exploiting natural resources generates rents that go to a few, with low employment and as a rule, fewer incentives to create new productive activities. Relatively low education levels are an even more serious cause of inequality. The relationship between education and inequality is not linear, because at very low education levels the scant income generated is relatively well distributed. Greater concentration of income tends to occur when the average level of education is between 5 and 6 years, precisely the levels characteristic of Latin America.

The way the ownership of productive assets is distributed is as important for income distribution as the relationship between the amounts of some assets and others. In this regard as well, Latin America is at a disadvantage. In some countries of the region, ownership of natural resources and opportunities for education are very concentrated. Thus economic growth and the new economic opportunities it brings are not equally available to all population groups, and in extreme cases their concentration tends to intensify.

In comparison with Southeast Asian countries, Latin America’s greater income concentration is due especially to the relative abundance of natural resources and poor distribution of land and education. In comparison with Europe, the most important difference is the low accumulation of physical and human capital, although the other factors have some weight (Figure 38).

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Distribution Fluctuates in the Short Run

Because these structural factors change very slowly, the structural reforms should not be expected to have a pronounced effect on income distribution. But that explanation is incomplete, because alongside long-run factors, macroeconomic fluctuations can produce important changes in income distribution. In particular, distribution can become worse when productive activity slows down, when investment falls, or when the inflation rate rises. This hypothesis is clearly confirmed by an econometric analysis of the changes in income distribution in 12 Latin American countries between 1970 and 1995 (see Box 8). Through these macroeconomic factors, the structural reforms have had a favorable impact on distribution, as we will see further on.

Nevertheless, structural reforms may also change income distribution in the short run as a result of microeconomic factors, or more precisely, through changes in relative prices, remuneration, and chances for employment of some groups as opposed to others. These kinds of redistributions, which are quickly observed, may give rise to fears of the distributional effects of the reforms. But the redistributive effects of reforms are quite diverse and difficult to predict, as explained below.

Trade Reform. Fears that trade reform worsens income distribution are usually based on one of three arguments: (i) increasing imports means displacing national production and employment (at least temporarily), (ii) the opening of trade cheapens luxury consumption goods, as opposed to mass consumer items, (iii) the opening makes it possible to introduce capital-intensive production technologies that tend to require more trained labor but that lower the demand for unskilled labor. In the opposite direction, it can be argued that (i) the opening stimulates export development in those goods that intensively utilize the most abundant resources, especially unskilled labor (nevertheless, if exports are natural-resource intensive, concentration may possibly increase), (ii) the opening eliminates the rents that favor importers and protected national producers, who are on the higher income levels, while (iii) reduction of tariffs and protection on mass consumer goods improves the purchasing capacity of low-income groups, and (iv) the opening broadens investment, production, and employment opportunities to the benefit of groups marginalized from economic activity in the previous situation.

Tax Reform. Simplification of tax systems can bring about regressive effects in income distribution for four reasons: (i) marginal tax rates are lowered for higher-income segments and businesses; (ii) value-added taxes are adopted, which are taxes on consumption, and they tax less those who save more, that is, higher-income groups; (iii) tax exemptions for goods in the basket of basic goods are eliminated, and the rates of the specific tax on luxury consumption are lowered, and (iv) special treatments are ended for low profit or high job creation businesses or activities, such as agriculture or certain industrial sectors. In the opposite direction, the reforms may be progressive because: (i) simpler systems cut opportunities for tax evasion and reduce exemptions and special treatments, which would otherwise favor the more influential and higher-income groups, (ii) the adoption of broader bases for taxes on consumption or income avoids imposing greater taxes on certain easier to monitor groups, such as wage-earners, who are not necessarily the most wealthy; and (iii) insofar as they encourage investment, more neutral tax systems favor the creation of new job opportunities and stimulate competition.

Finance Reform. Financial liberalization may translate into greater income concentration in several ways: (i) liberalization of interest rates may raise the real yield on savings in the financial system which are held by high-income groups, (ii) broadening the credit supply and lowering margins of financial services makes capital cheaper, facilitating the adoption of capital-intensive technologies to the detriment of labor demand, (iii) the dismantling of targeted credit programs may harm the popular sectors that were served by such programs, and (iv) the new financing possibilities may augment the concentration in favor of the families and businesses that already have control over the financial groups. Whether or not such effects actually take place will depend on the...
Around the world the levels of inequality in different countries are associated with relative endowments of physical capital, natural resources, and education. Hence, changes in these variables are expected to have some impact on income distribution in each country. But the growth tendencies of the economy and its performance can also influence the distribution situation. Sustained growth over time changes the relative remunerations of productive factors and enables new income and mobility opportunities to appear. In the short run, economic cycles may have more than a proportionate effect on the more vulnerable groups that have no means to stabilize their incomes. Londoño and Székely (1997) analyzed these hypotheses for a group of 12 countries in Latin America during the 1970-1995 period (see the methodology in Appendix 4).

The results confirm that income inequality in Latin America has changed according to the pace of the accumulation of physical and human capital. Increased investment of between 4 and 5 points of GDP is associated with a one-point decline in the Gini coefficient and a one-year increase in average education (above what would be expected for the level of development) is associated with a reduction of the Gini coefficient of somewhat over 2 points.

Income distribution has also been associated with the ongoing growth rate. Although the statistical relationship is not very strong, greater long-run growth rates are related to lower levels of inequality in Latin America (this implies that the region is already on the right side of the Kuznets inverted U, which postulates that distribution tends to worsen during earlier states of economic development and to improve later).

On the other hand, during temporary economic boom cycles the poor have benefitted more than the wealthy. An expansion of income 5 percent above their permanent level has tended to improve the Gini coefficient by 2 points. By the same token, recessions have been very inequitable.

High inequality in education, however, has conditioned the impact of accumulation on income distribution. Greater inequality in education has brought with it greater income concentration. But there has also been an indirect effect. Educational inequity has limited the distributive effect of the accumulation of physical capital. In those countries with greater concentration of education, increased investment has worsened income distribution, possibly because it has increased the benefit of education, which is scarce, and reduced the need for unskilled labor.

The interaction of these factors has led to a notable worsening of income distribution in Latin America since the 1970s. Physical investment rates have fallen from a 29 percent average in the seventies to 22 percent since the debt crisis. Education has gone backward, and currently the workforce in Latin America has an average of two years less schooling than it should have for its level of development (and 4 years less than Southeast Asian countries, discounting the differences attributable to income levels). Moreover, education in Latin America is increasingly concentrated. In the seventies these structural tendencies were combined with a cycle of economic expansion, resulting in slightly improved distribution. The recession of the eighties had the effect of reinforcing all the factors that cause deterioration, producing an abrupt increase in concentration. The recovery of growth and investment in the nineties has compensated for the concentrated effect of the lack of education and its poor distribution, but it has not been enough to produce an improvement.

Characteristics of the financial sector and the manner in which the liberalization and regulation process is carried out. Ideally, financial reform can lead to extending the credit supply to sectors formerly excluded, improving competition within the financial sector, and moderating the margins between the deposit rate and the lending rate, and reducing the monopolistic profits of the financial groups.

Privatizations. This may be the reform area that has aroused the greatest resistance for distribution reasons. Although the usual arguments presented mistakenly assume that state property is the same as property of the
people (and hence redistributive), there are other reasons to fear that privatization may worsen income distribution, because: (i) with privatizations, subsidies to public services, which are sometimes truly redistributive, normally disappear; (ii) privatization may grant monopoly power to the new companies, who then reap extraordinary profit, (iii) privatized companies in the utilities area may not have incentives to serve the demand from the popular sectors or rural areas, and (iv) privatization generally means massive layoffs of employees. As in the case of financial reform, whether or not such things take place depends on factors specific to each country. Likewise, privatization may be redistributive, because (i) subsidies on rates, even if differentiated by income groups, grant larger total subsidy amounts to those who consume more, namely higher income groups, (ii) privatization tends to introduce competition and efficiency into antiquated companies, which generate losses at taxpayer expense and provide poor services, especially to popular sectors and to groups unable to exert pressure, and (iii) privatization stimulates investment in the privatized companies and in other related sectors, compensating for jobs lost as redundant with others that are more productive.

Labor reform. Concern for distribution may have been an obstacle to labor reforms in Latin America. Making labor more flexible may reduce real remunerations of permanent workers, may increase their risk of being left unemployed, and may reduce economic protection against illness or old age. However, it is not obvious that any labor reform has to produce such results, and even less that if they do take place they worsen income distribution. Lower unemployment rates are typical of countries with more flexible labor markets (which depends not only on legislation but on other institutional characteristics proper to each country). More rigid labor legislation provides protection and stable incomes only to groups that are not poor, while limiting the possibilities for job creation and tending to depress the incomes of temporary workers, the self-employed, and the rural classes. Rigid labor codes may prompt governments to take steps to make labor more flexible on the margins, thereby reducing protection for the more vulnerable groups. For example, making temporary jobs more flexible or an excessive erosion of the minimum wage may help alleviate unemployment, but it can have adverse effects on groups of poor workers who lack bargaining power.

Many of these distributive effects of structural reforms cannot be quantified because the usual indicators of concentration are based on pre-tax monetary incomes rather than the incomes received by households. Hence they do not register changes in the incomes that are not received by households, such as earnings withheld by companies. Nor do they register changes in taxation on income (although they do on indirect taxation, which is reflected on prices of consumer goods), nor changes in non-monetary subsidies received by households (for example through free or heavily subsidized education). Because they refer solely to income, the usual indicators of concentration do not take into account the distributive effects of changes in the price of assets (real estate, equipment or financial assets). It is not surprising that there is no conclusive evidence on the distributional impact of the reforms.

In the case of trade reform, where most of the distributional effects do take place through incomes and the relative prices of goods, it is possible to come to precise conclusions. In thirteen countries analyzed during the 1985-95 period, the adoption of trade liberalization policies has been associated significantly with faster growth of the real incomes of the poorest 60 percent of the population and with a decline of the real revenues of the wealthiest 20 percent. The effect is highly progressive, since the greatest relative increases have occurred in the lowest income quintile (see Figure 39 and Appendix 4).

The redistributive effect of trade liberalizations may seem to run contrary to conventional wisdom. In many countries it has been observed that since trade liberalization the gap has increasingly widened between the incomes of skilled workers and other workers, and that seems to be associated with the adoption of more capital-intensive production techniques and the greater international competition to which less capital-intensive products that use low-skilled labor, are subjected. Although this is unquestionably important, it is not proof of a general worsening of income distribution but applies only to wage-earners (and actually not even all of that income but, strictly speaking, that generated in formal companies in the manufacturing sector). Although trade reform may have worsened distribution among certain labor groups, these effects have been compensated in the aggregate by the reduction of rents derived from protection and the lowering of prices for everyday consumer goods, among other factors (see Box 9).

Reforms Improved Distribution through Growth

As to the microeconomic redistributive effects resulting from changes in relative prices and incomes and from transfers between the state, households, and businesses, the evidence is incomplete. The reforms affected not only
Trade liberalization effects on income distribution have drawn increasing interest in the last few years. Numerous studies of the effects of trade liberalization on wage differentials have concluded that in Latin America since the eighties, increase in international trade has coincided with an increase in demand and returns to skilled labor, relative to unskilled labor, implying unfavorable distribution effects. However, recent international studies indicate that the increase in wage differentials is not limited to Latin America, but has occurred almost everywhere, not only in countries that have opened up to international trade. Most studies credit recent technological change as the most important factor causing changes in the wage structure.

On the other hand, though empirical evidence on the rise of urban skilled wages is quite solid, this is no proof that trade liberalization increases global income inequality. Wages are only a part of home incomes, and not a majority in the aggregate. Trade liberalization can generate changes in the relative prices of all factors of production, not only of wage labor. It can also induce a resource reallocation in the economy, promote the adoption of different technologies, and modify relative prices of basic consumption goods. The joint effect of all these changes on total income distribution has not yet been clearly established.

Recent research has found that the relationship between trade liberalization and income distribution is far from straightforward. The most complete recent study is that of Bourguignon and Morrison (1989 and 1990). Based on a model where income distribution depends on factor endowment and openness, they conclude that the evidence does not support the hypothesis of greater liberalization corresponding to greater inequality. Recently, Edwards (1997) confirms the lack of a systematic relationship between changes in income distribution and openness by utilizing an array of indicators for the latter. Londoño and Szekely (1997) find the degree of inequality in Latin America closely linked to resource endowment and property structure. The relative abundance and concentration of natural resources in a few hands, and the relative scarcity and poor distribution of human capital, seem to explain much of the extreme income inequality of the continent. Unless the context of structural reforms in which liberalization occurs is taken into account, it is difficult to identify the linkage between distributive changes and openness. But once the resulting investment and productivity increases are taken into consideration, structural reforms, and trade liberalization in particular, have favorable effects on equality. They also find that the increased investment associated with liberalization could generate a negative effect on inequality in those countries that have the greatest education gaps.

Spilimbergo, Londoño and Szekely (1997) generalize the previous results and find that for a postwar 88-country sample, the relationship between trade liberalization and total income distribution depends essentially on factor endowments (skilled labor, natural resources and capital) relative to world patterns. In turn, world endowment patterns have changed with trade: growing participation of China and other Asian countries abundant in unskilled labor, has altered traditional Latin American comparative advantage patterns. They also find that changes in natural resource and capital rates of return that usually accompany trade liberalization processes tend to have a smaller effect in bridging the income gap in those countries in which assets are more concentrated in few hands, as seems to be the case for Latin America. In a good number of cases, paradoxically, global income distribution has followed a different path than that of urban labor income distribution.

In short, even though trade liberalization seems to have coincided with an increase in the relative wages of skilled urban workers in those countries with wider education gaps, trade liberalization effects on total income distribution are more complex, and influenced by the countries' relative factor endowments, by global technology changes and by recomposition of world trade patterns.

While empirical research continues, the existence of a simple relationship between trade liberalization and worsening income distribution is the only hypothesis that is strongly rejected.

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1 For Latin America, valuable comparative studies are Bulmer-Thomas (1996), Cárdenas (1997) and Berry (1997a). Two recent essays with such interpretation are Berry (1997b) and Morley (1997).
3 For an excellent literature review, see Atkinson (1997) and Gottschalk (1996). The most complete summaries can be found in Goldin and Katz.
the microeconomy, but also the way the macroeconomy operates. The evidence available since 1970 shows that income distribution improves when economic growth increases and when investment rises (as seen in Box 8). The structural reforms have produced effects in that direction, and hence can be expected to have favorable effects on income. Can evidence be found that this occurred? Perhaps, but there may still be reasons to expect that when the development model changed, reforms may not have caused such effects on distribution. Instead, there may be evidence of other significant changes in income distribution through the microeconomic factors discussed above.

In fact, changes in income distribution over the past decade in Latin America reflect the influence of the structural and macroeconomic variables in the directions that would be expected, given the evidence for longer periods. Greater rates of economic growth or investment have been translated into improvements in income distribution. The direction of these relationships has not been altered by the structural changes. If anything, the structural reforms may have increased the distributional effect of investment, although the evidence is not overwhelming (the econometric results are reported in Appendix 4).

Lack of Education Limits Reforms’ Redistributive Potential

Changes in income distribution in the past decade have also been due to educational factors. Higher levels of schooling have helped reduce inequality, whereas a greater concentration of education has reinforced income inequality. Although the direction of these effects has been the same as in the past, the reforms seem to have augmented the concentrating effect of poor distribution of education. The reforms have increased employment opportunities and pay for skilled work, because they have facilitated the adoption of new technologies and forms of organization and administration. Consequently, in those countries where labor force education was more uneven, differences in remuneration between the more educated and less educated workers have been magnified, with adverse effects on income distribution. This effect has been more significant for the poorest 20 percent of the population than for other groups, although it also adversely affected the middle classes, and has only benefited the richest 20 percent of the population.

Consequently, the reforms have been favorable for income distribution through their macroeconomic effects of greater growth and investment, but part of this effect has been diluted by the poor distribution of education, since the reforms have increased remuneration for relatively higher education.

Due to the interaction of structural, macroeconomic, and educational factors, income distribution has not held steady in the past decade. In the second half of the eighties, concentration rose in a very pronounced way because two adverse forces were combined: on the one hand, economic growth was low and on the other, changes in the educational levels of the workforce were slow and tended to worsen the education gap. In the first half of the nineties, thanks to stabilization and structural reforms, growth recovered and that led to improved distribution. But the educational decline was even more severe than during the previous five-year period, and the concentration effect of poor distribution increased. In sum, although the process of deteriorating distribution was halted, no improvement was achieved (Figure 40).

The economy and education were opposing forces that kept distribution unchanged during the nineties. The tension between the two factors was much sharper in lower income strata than in the higher. By itself alone, the educational factor would have caused the incomes of the lowest quintile to drop by around 20 percent, an effect that could have been overcome with better performance by the economy. By contrast, the highest income group barely benefited from greater economic growth, while it made substantial gains in income because of the value placed on its education. Modest economic growth did not produce any improvement for the middle class-
The education lag was harmful to them. These middle population groups indeed have reasons to feel frustrated.

Reforms Are Not Enough

The structural reforms of the past decade halted declining distribution but they did not correct it, because of lacks in the level and distribution of education, and the fact that investment did not recover sufficiently. The future could be simply an extension of these developments, unless the reforms are deepened and unless very aggressive policies are also adopted in order to make up for the region’s lag in education and to improve the distribution of productive assets, both human and physical.

Current economic and social policies will not suffice to alleviate social inequities at a rate acceptable to Latin Americans. If current macroeconomic and structural policies are maintained, economic growth will be around 3.8 percent and the investment effort of physical assets as a proportion of GDP will not change. If education policies do not change, the gap vis-à-vis the world pattern, now at two years of schooling, will be over three years in the coming decade and schooling will be even more concentrated than it is at present. Under such conditions, the overall indicators of inequality cannot be expected to change significantly. After a small temporary reduction connected with the recent recovery, the situation will return to the present high levels of inequality. The number of poor people will fluctuate with the ups and downs of the business cycle with no clear downward trend.

The deepening of the structural reforms may represent some progress but it will not be the solution. With greater macroeconomic stabilization and structural reforms in each country so as to reach the achievements of the most advanced group in each reform area, growth can reach 5.5 percent annually and the pace of accumulation of productive physical assets can grow above that figure. That would make it possible to permanently reduce the Gini coefficient by more than 2 points. The effect would be noticeable and significant in a few years, but in the next decade this trend toward progress in distribution would be halted.

The additional impact of a more effective educational policy would be more noticeable and would extend more over time. Suppose that in addition to the macro and structural policies mentioned in the previous paragraph, the governments of the region were to reorganize education systems with a view to closing the educational gap with the rest of the world by the year 2020. The average education of the Latin American workforce would then reach nine years of schooling. The initial impact of greater educational effort would not be very pronounced during the first two five-year periods, but the gradual incorporation of the more educated population into the workforce would subsequently bear increasing fruit, until it generated a further reduction of the Gini coefficient by approximately five points. This means that, combined with macro and structural policies, the reduction of the coefficients of inequality would be around 8 or 10 points, and the extra inequality that Latin America displays vis-à-vis world patterns would thereby be eliminated.
But even these gains would be insufficient for reaching the levels of equity typical of European or Southeast Asian countries. That is not surprising, because inequity in Latin America has its roots not only in economic and educational policies, but also in its relative endowment of other resources and the way they are distributed. Hence, as discussed in the next section, further policies are required for gradually making progress in distribution.

**TOWARD AN AGENDA OF ECONOMIC AND SOCIAL POLICIES**

The structural reforms adopted in Latin America during the past decade have helped spur economic growth, reduce economic volatility, and halt the trends toward worsening income distribution and increasing poverty. In terms of the hypothesis this document posed, it is correct to say that the reforms have worked in the direction desired by society. In most of these domains, the effects have been rapid: in economic growth and reduction of volatility, the favorable effects have been observed no later than three years after adoption of the reforms. But even though the effects of the reforms have been in the desired direction and have been relatively rapid, they have not been sufficient for attaining the growth, stability, and social equity that society regards as acceptable.

Part of the reason has been that market reforms have been incomplete. A deepening of the reforms would bring the growth rates of those countries that still have low growth rates to levels near or above 5 percent and to conditions of a stable GDP, inflation, and other macroeconomic variables not far from those of developed countries. Even so, however, in most instances, market reforms, no matter how deep, would not make it possible to reach the sustained growth rates attained by Southeast Asian countries, and in a few countries growth would not even be 5 percent. Nor would the structural reforms prevent the emergence of situations of macro instability whose roots lie in inadequate institutional structures in the fiscal, monetary and financial areas, because the means to anticipate the generation of imbalances and to counteract business cycles are lacking.

Structural reforms by themselves will not suffice to resolve the serious problems of social inequity in Latin America; at best, they can prevent them from becoming worse. The deepest causes of this injustice lie in the slow accumulation of human capital and in the way markets and institutions reproduce the existing patterns of distribution of physical assets and education.

Hence, an economic and social policy agenda for Latin America must contain action strategies that tend to:

- Deepen market reforms
- Reduce sources of volatility
- Accelerate the accumulation of human capital, and
- Broaden the range of tools for pursuing equity.

A policy agenda for these four areas is presented below. The structure and central elements of this agenda flow naturally from the results of this study, while their more specific details and concrete actions are based on a number of studies of the IDB and other multilateral organizations based on the experiences of the countries. This agenda constitutes ideas for debate rather than a listing of recommendations. The actions that particular countries take will depend on their economic and political circumstances, on their institutional and human capital, and on their own national proposals. Nor does this proposed agenda represent IDB action priorities for the countries, which may be developed only in connection with policy dialogues with each government.

**Deepen Market Reforms**

Trade policy. The lifting of controls on trade is the most advanced reform area in most countries in the region. Even so, the job is not finished in this area. In some countries of Central America and the Caribbean in particular, average tariff levels are well above the 11 percent registered by the region as a whole. Advances made in the integration process in the Central American Common Market, Panama’s recent entry into the World Trade Organization, and some measures of tariff rationalization in the Bahamas, signal movement in that direction. Despite widespread tariff reduction in Latin America, many countries still maintain relatively high levels of tariff spread, with tariff platforms moving up from capital goods to intermediate products and from them to consumer goods. These structures reflect, albeit in a much more moderate form, the features of the tariff regimes maintained in previous decades, but it is not clear that they are in line with justified efficiency considerations. It may be possible to make advances in this area that will aid the processes of regional integration and unilateral opening without causing disruptions in the areas of labor or distribution, which are generally claimed to be constraints to adopting more level tariffs.

The region also faces the tasks entailed in the process of hemispheric integration, to which all countries are committed. This objective is consistent with the deep-
ening of the unilateral trade opening, but it also requires other efforts to bring about the convergence of the regional agreements. In particular, the subregional integration schemes must move toward the adoption and harmonization of rules regarding nontariff restrictions and resolution of trade conflicts. Individually, the countries must also adjust themselves to the commitments acquired within the framework of the World Trade Organization, assure the compatibility of the subregional trade agreements with the multilateral rules, and demand of the WTO a coherent and fair monitoring system of the obligations undertaken.

The subregional trade agreements have facilitated the adoption of trade liberalization policies and must continue serving that purpose within ever-expanding integrating schemes.

Financial policy. Financial reforms in Latin America have advanced more quickly in liberalization than supervision and prudential regulation. In this process the countries have been left exposed to greater risks of financial crises, which they should try to prevent, partly through actions seeking to reduce the potential for macroeconomic instability (see next section), and partly through a deepening of the financial reform in the areas of regulation and supervision, as follows:

- Adoption of adequate accounting systems so as to facilitate proper classification of assets by risk considerations, register in a timely way changes in valuation of assets, and make it possible to follow changes in portfolio quality quickly and accurately;
- Capitalization requirements linked to risk of all assets, in no case less than those established in the Basel Accords and ideally greater, in view of the more volatile economic atmosphere in Latin American countries;
- Standards to limit the concentration of loans or granting of credit to companies or individuals with ties to the owners or management of a financing agency;
- Legal standards setting strict and transparent conditions for creating new financial entities, which take into account the procedures to be followed and actions to be taken by authorities in the event of a crisis;
- Supplementing government supervision through the use of outside auditors and private risk assessment agencies;
- Complementary domestic oversight of banks that have foreign capital with overseas supervision;
- Supplementing accounting oversight with market vigilance through issue of shares in banks that can be bought and sold on stock exchanges;
- Requirements that accounting information on financial entities be released publicly, with a view to making it easier to monitor the market.

Tax policy. The tax reforms of the past decade have focused on making systems more neutral and rationalizing the number and structure of taxes, without jeopardizing tax collection procedures. These measures can go deeper in most countries inasmuch as, contrary to what has happened with the trade and finance reforms, progress in tax reforms has been rather incomplete. In addition, the region’s tax systems have to face the following challenges:

- Increase collection through direct taxation, mainly the income tax;
- Rationalize selective consumer taxes;
- Improve management of the VAT, extending the bases and in some cases lowering rates;
- Revise tax powers between levels of government and shared tax systems, stimulating the development of taxation at subnational levels of government;
- Modernize models of tax management and strengthen the functions of assigning taxes, collecting, and court procedures, and;
- Bring procedures for tax administration into line with the process of international economic integration.

Privatization. Advances in this area have been very uneven between countries, not only because of the political constraints and opposition from labor that such privatization generally encounters, but because of the need to follow a sequence in order to assure the success of the process from the standpoint of economic efficiency. Keeping in mind the limitations proper to each country, the privatization process should be guided by the following general guidelines:

- Conclude the sale to the private sector of the state-owned companies in the areas of industry, finance, and others that are now operating in a free competition framework;
- Before moving ahead with the privatization of companies operating in monopolistic sectors, establish the regulatory framework separating activities that can be potentially competitive, setting up rate systems, defining spheres of activity and purposes of the companies, and creating or strengthening oversight agencies;

29 An extensive discussion of these issues is found in Hausmann and Rojas-Suárez (1996).
30 See a development of these action areas in IDB (1996), Part II, Chapter 3.
31 See in Part III of this Report a description of systems of shared participation and taxation powers in the countries of the region.
32 A more complete discussion is found in Kikeri, Nellis, and Shirley (1992), from which the guidelines here are drawn.
When that is not possible in the short run, steps should be taken at least to privatize the management of companies through management contracts, concessions, or subcontracts for clearly separated segments of production or distribution;

- Arrange for the sale of companies primarily in order to improve economic efficiency, not to maximize fiscal revenues or distribute property;
- Avoid capital investments before companies are privatized, and focus instead on administrative and organizational reorganization, clean finances, and, when necessary, cutting back on personnel;
- Pay attention to the social costs of the unemployment that may ensue, by using tools of labor policy, such as severance payments, unemployment insurance, retraining, and job information services (see below);
- Allow the market to set transaction prices, with payments preferably made in cash; and,
- Assure that the entire process is legally, administratively, and operationally transparent.

Labor legislation. Labor code reforms have been few and not very deep. Current labor legislation may have hindered the reabsorption of workers who were displaced during the reform process. Labor legislation modernization is a challenge in almost all countries in the region. It must strive primarily to facilitate job creation, but must also keep in mind the need to stabilize worker incomes, especially at the lower end of the wage scale, and avoid segmenting the market into workers who are covered by certain social protection regulations and those who are not, or between permanent and temporary workers. Such segmentations reinforce wage rigidities and limit the mobility of groups of workers who now enjoy greater stability and protection, while they increase the instability of employment and income among groups not covered, who may need greater protection. Consequently, a minimum policy agenda in the labor area should seek to accomplish the following goals:

- With a view to stimulating labor demand, reduce the tax character of payroll contributions and charges intended for social security programs, and instead tie them to the individual benefits that workers derive from such programs, so that they may be perceived as part of their pay. The conversion of traditional pension systems into individual capitalization systems is consistent with such an orientation.
- With the same purpose of stimulating labor demand, factors of uncertainty of labor costs ought to be eliminated, especially those deriving from dismissal costs connected to worker seniority. The replacement of such costs by individual savings, in funds that can be withdrawn if the worker is unemployed, not only improves the certainty of labor costs, but also makes the component of remuneration in this protection system more explicit to workers.
- Seek to stabilize incomes, not necessarily workers’ jobs. Individual savings funds to be drawn on in the event of unemployment are one option. Another is unemployment insurance, although it is difficult to administer and entails the risk of encouraging voluntary unemployment.
- Grant the same basic social security and other benefits to temporary workers and to workers in different occupations. Allow flexibility in a wider range of job categories.
- Reduce wage rigidities imposed externally on the parties contracting a labor agreement (that is, the company and the entire body of current workers). An example of such rigidities are conventions inherited from the past (currently being discussed in Argentina), or the norms for collective bargaining for a whole sector or branch of industry that exist in a number of countries, or legal arrangements for wage indexing.
- Nevertheless, due to the needs for protection of poor workers without organizing and negotiating capability, a policy of stable real minimum wages compatible with high levels of employment should be maintained.
- Improve the management of government employment services so as to ease the transition between jobs and reduce the length of unemployment.
- Reduce the state monopoly over labor training, in order to allow for a more rapid and adequate adjustment to the needs of companies which can be provided by private training services.

Reduce Sources of Volatility

The structural reforms have significantly reduced the volatility of GDP, inflation, and the real exchange rate because they have enabled markets for goods and financial resources to adjust more smoothly, made price signals and macroeconomic variables more transparent, and imposed discipline on fiscal and monetary policies. But none of this is any guarantee that macroeconomic stability will not be seriously upset in the future by shocks from outside, by fiscal disruptions, or by mistaken monetary or financial policy decisions. Although these risks can never be eliminated, a set of actions and institutional reforms can certainly reduce the likelihood of their occurrence.
Monetary policy and saving. The financial sector is often the terrain where destabilizing factors sprout and the source from which they spread. We have already noted a number of measures for deepening financial reforms that may help detect on time and limit the possibility of banking crises. But financial stability and the stability of the economy as a whole also make macro policies a necessity. Monetary and savings policies may help reduce volatility in various ways:

• By preventing credit booms that tend to begin when inflation has been successfully controlled, or when market reforms are introduced that broaden the possibilities of financial dealings. Although financial deepening is a desirable objective, it should be achieved slowly, because during times when credit is booming, the quality of loans cannot be discerned until the recession comes, and then it may be too late to prevent financial crises and their impacts on the economy as a whole. Monetary policy must play an active role in preventing credit booms, by managing the liquidity requirements of the banks and open market operations.

• By maintaining a precautionary balance of international reserves in order to deal with speculative attacks on the local currency, the outcome of which may be exchange rate and financial crises. The sum of international reserves that can fulfill this function depends not so much on the value of imports (the variable against which it tends to be measured) as on the exchange rate system intended to be maintained (the more the fixed the nominal exchange rate the greater the need for reserves) and particularly on the size and variability of liquidity in local currency.

• By creating sources of long-term saving that will enable the financial and market deepening to have solid and stable foundations. Pension funds based on individual contributions have proven to be an important source of long-term saving in Chile, and have begun to be so in other countries which have reformed their pension systems. Moreover, public sectors in Latin America must become generators of long-term saving, because, while they have strengthened their capacity to generate tax resources, they have transferred to the private sector a significant portion of the responsibility for investing in utilities and infrastructure. This reallocation of functions can only be sustainable with higher levels of public saving.

Fiscal policy. As argued in Part III of this Report, fiscal policy in Latin America is typically pro-cyclical: public spending expands vigorously during times of economic expansion and contracts in recessionary periods, thereby helping to augment rather than to moderate economic cycles. Since little saving is generated in periods of expansion, and financing possibilities are reduced in times of recession, fiscal adjustments at such times are necessarily abrupt and painful. The relatively high levels of the domestic public debt of Latin American countries are a further complicating factor that make financial constraints more severe and constitute yet another source of volatility, given the short time periods of public debt securities and low levels of depth of financial markets and domestic capital. In order to disarm the destabilizing potential of fiscal policy, a number of actions are required:\footnote{Some of these recommendations are discussed in Hausmann and Stein (1995) and Gavin, Hausmann, Perotti and Talvi (1996). For a detailed analysis of the interplay between fiscal institutions and performance, see Part III of this Report, which also contains a broader discussion of policy recommendations.}

• Set the maximum fiscal deficit allowable adjusted to the business cycle in order to prevent pro-cyclical changes in spending.

• Set up funds for stabilizing fiscal revenues that will demand that extraordinary revenues or those of a cyclical nature be saved so that they can then be used when the situation is reversed.

• Adopt broad taxation bases, such as, for example, all consumption, in order to replace more limited and potentially unstable bases, such as taxes on foreign trade, on capital flows, or on certain luxury goods.

• Dismantle systems for transferring fiscal resources (to other levels of government or to specific spending programs) that are based on fiscal revenues, or when they must be maintained (for example, in order to make decentralization viable), link them to public spending or some other indicator that will prevent them from behaving pro-cyclically.

• Prevent accumulation of unforeseen government debt obligations by explicitly incorporating them into the budget. The quasi-fiscal deficits generated by central banks, deposit guarantees, unemployment insurance, and the actuarial deficits of social security systems are examples of contingent fiscal obligations that ought to be estimated, recognized, and provided for in budgets.
• Limit the possibilities of lower level governments to contract debt, keeping in mind not only their ability to repay, but the total levels of public debt in the country and its composition.

**Accelerate the Accumulation of Human Capital**

Greater educational levels of the labor force would make it possible to accelerate economic growth and would notably reduce income concentration in Latin America. In the next ten years it is feasible to raise the educational level of the workforce one year above the rate at which it is currently tending to grow. This would mean reaching an average schooling level of 6.8 years (or 6.4 years, weighting the countries by population) by the year 2007, instead of the 5.8 (or 5.4) years that may be expected with current trends. The main obstacle to attaining this objective is not fiscal in nature. In fact, education spending in the region in the nineties (leaving out pension payments for teachers) has risen by 0.5 percent of GDP on average, enough to finance the proposed increases of education. The main challenge is one of organizing in order to obtain better results in terms of coverage and quality with those resources. The organization of education systems in Latin America is typically overcentralized from financial, labor, management, and academic standpoints. Although this system offers some advantages, it does not guarantee the most efficient or most equitable use of resources, does not encourage educational innovation or improvements in school management, does not make it easy to adapt curricula to the students’ needs and abilities, and does not take advantage of the possibilities of participation by the communities and parents in watching over and guiding the schools. Although the organization of education is not the only factor that must be taken into account in order to deal with the educational challenge in Latin America, it does indeed constitute an area of immediate priority. A new way of organizing the educational sector must be guided by the following criteria:

- Allocating budget resources not based on the (past or present) costs of operating properties, but on the basis of providing education service, that is, the number of students and the quality of achievements;
- Transferring to schools decisionmaking responsibility in hiring staff and financial and management administration;
- Setting standards of quality and proof of performance that are universally applicable and known to the public, making them known and having them discussed;
- Providing information and technical, management, and academic help to schools and to their management bodies and advisors;
- Encouraging the participation of communities and parents in oversight over school administration;
- Granting parents the chance to choose between schools.

Discussion of education policy has been centered on issues of the quality and quantity of primary education and the relevance and efficiency of university education. We suggest that the center of attention should turn increasingly toward secondary education. In order to eliminate the region’s educational gap in the next two decades, access to secondary education will have to be made universal for the coming generations.

The reorganization of education can remove some of the obstacles that have limited the supply of spaces in school, especially at the secondary level. But a greater supply of education may be redundant unless the demand for educational goods and services on the part of youth and adults is stimulated at the same time. The limitation that financial markets impose on young people and their families who pursue second education even seems to be stronger than that imposed on the accumulation of physical capital of businesses. The increasing orientation of government subsidies toward the demands of populations with less ability to pay either through vouchers or through government training arrangements may be part of the solution, but capital markets and international financing must also play a more active role.

**Broaden the Range of Tools for Pursuing Equity**

Macroeconomic stabilization and freer operation of markets have not been against equity. Evidence from Latin America during the past decade shows that these policies halted the process of income concentration and growing poverty from previous years. But a new generation of public policies is required to change the distribution patterns of physical and social assets much more profoundly.

Restructuring factor markets. During the past decade public policies have been intended primarily to remove the distortions preventing markets of goods from func-

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34 Londoño (1996) calculated that it would be necessary to raise 1990 education spending by this amount in order to move up one year in education by the year 2000.

35 A detailed discussion of these policy guidelines is found in IDB (1996), Part III.

36 See Flug, Spilimbergo and Wachtenheim (1997).
tioning. Less attention has been paid to improving the functioning of factor markets, and in particular to broadening and democratizing access to productive resources. In the case of the financial market, although its operation has been eased, problems of access to credit have not been resolved for small producers. Consequently, policy actions for restructuring factor markets include:

- Reform of labor codes with the aim of not only improving efficiency but of correcting the inequitable segmentation currently characterizing labor markets, and of offering protection to workers, especially at lower income levels;
- Design and implementation of mechanisms for evaluating and monitoring the credit risks of small borrowers;
- Strengthening of mortgage financing systems, whose foundations were eroded away in some countries by years of inflation and inadequate financial policies.

Restructuring of government institutions. Not only markets have an impact on inequality of income and opportunity in Latin America. Inequitable access to government services and to decisionmaking bodies in government and other public institutions also have an influence on the characteristics and persistence of inequality.

Latin America’s fiscal volatility has been substantially reduced in the nineties. Nevertheless, the fiscal structures that would make social spending an instrument of social protection against business cycles have not been built. In many countries the allocation of resources for social programs is determined on the basis of tax revenues, and their behavior reflects the business cycle. In order to serve as a protective mechanism, social spending ought to be independent of the business cycle, except for items such as unemployment insurance, where it must increase during the downswing, as is the case in developed countries.

Market reforms may have significantly reduced the volatility of the most important macroeconomic variables, but that does not mean that they have necessarily reduced the instability of employment or of the incomes of certain specific population groups. Latin America is behind in developing social insurance institutions to protect these groups in the framework of market reforms (Rodrik 1997). Neither the welfare state as found in European countries, nor protection through stable employment, as is common among Southeast Asian countries are necessarily adequate models for Latin American countries. The new institutions should neither jeopardize fiscal stability nor encourage segmentation of labor markets, for both of these cause deeper inequities that are difficult to correct, as the experience of the region has shown.

Finally, Latin America must develop institutions for handling social conflicts. In the absence of such institutions, economic transformations, such as those wrought by structural reforms or external shocks from prices or technology, are difficult to absorb, and their recessionary and regressive effects tend to be prolonged and to extend unnecessarily. The corporative tradition of some countries of the region has led to the exclusion of many social groups from the negotiating and collective decisionmaking process, where usually only companies that belong to major business associations and formal workers tied to labor federations are represented. Collective bargaining mechanisms in labor are likewise inadequate in many countries, especially when they are industry-wide, because they do not take into account the variety of conditions in companies and the different kinds of workers involved. The weakness and lack of credibility of legal institutions in some countries of the region is a further hindrance to resolving individual conflicts.
REFERENCES


ECLAC. 1997. La brecha de la equidad. Latin America, the Caribbean and the Social Summit. Santiago de Chile: UN Economic Commission on Latin American and the Caribbean.


A DECADE OF STRUCTURAL REFORMS


APPENDIX 1.
ECONOMETRIC ESTIMATES OF THE EFFECTS OF REFORMS ON GROWTH, PRODUCTIVITY, AND INVESTMENT

The estimates presented in this appendix are panel regressions for 19 countries covering four consecutive three-year periods: 1984-86, 1987-89, 1990-92, and 1993-95. The dependent variables are growth rates, total factor productivity changes, and investment rates (as percent of GDP). The main independent variables are the structural policy indices, two measurements of macro stability (the inflation tax and volatility of inflation), and one structural control variable (schooling of the workforce). Schooling is the only variable without a time dimension, because it holds its initial 1983 value. The other variables are calculated as averages for each three-year period, except that policy indices for the first period correspond to the average for 1985-86.

The regression method used was that of random effects (generalized least squares) for growth and productivity regressions, and that of fixed effects for investment regressions. In the growth and productivity regressions, the indices used are the orthogonal components obtained through regressions of each index as a function of the others, in accordance with the matrix presented below. Privatization was excluded because its orthogonal component showed little significance in growth and productivity regressions.

<table>
<thead>
<tr>
<th></th>
<th>Trade</th>
<th>Taxes</th>
<th>Finance</th>
<th>Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.2036</td>
<td>-0.2902</td>
<td>-0.2411</td>
<td>-0.4859</td>
</tr>
<tr>
<td>Trade</td>
<td>1.0000</td>
<td>0.3468</td>
<td>0.5800</td>
<td>-0.0722</td>
</tr>
<tr>
<td>Taxes</td>
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<td>1.0000</td>
<td>0.1744</td>
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<td>Finance</td>
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<td>1.0000</td>
<td>-0.0019</td>
</tr>
<tr>
<td>Labor</td>
<td>-0.1215</td>
<td>0.0386</td>
<td>-0.068</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

In the investment regression, a similar procedure was followed for the trade policy and privatization indices alone, since the others did not show significance. The corresponding matrix is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Trade</th>
<th>Privatization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.6979</td>
<td>0.1281</td>
</tr>
<tr>
<td>Trade</td>
<td>1.0000</td>
<td>-0.2840</td>
</tr>
<tr>
<td>Privatization</td>
<td>-0.4282</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

The breakdown exercises and simulations presented in tables in the text require that coefficients obtained in the regressions be retransformed, by using these coefficient matrices to obtain the structural coefficients of the policy variables. The following table presents the results of those transformations:

<table>
<thead>
<tr>
<th></th>
<th>Per capita growth (regression 1.3)</th>
<th>Productivity (regression 1.7)</th>
<th>Investment coefficient (regression 1.11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Level Change</td>
<td>0.0415</td>
<td>0.0275</td>
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</tr>
<tr>
<td>Change</td>
<td>0.0589</td>
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<td></td>
</tr>
<tr>
<td>Taxes</td>
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<td>0.0223</td>
<td></td>
</tr>
<tr>
<td>Finance</td>
<td>0.0321</td>
<td>0.0232</td>
<td></td>
</tr>
<tr>
<td>Privatization</td>
<td></td>
<td></td>
<td>0.0291</td>
</tr>
<tr>
<td>Labor</td>
<td>0.0558</td>
<td>0.0337</td>
<td></td>
</tr>
</tbody>
</table>

The breakdowns and simulations presented in the study utilize the foregoing productivity and investment coefficients, but not those for growth. For calculating total, permanent, and transitory growth, the model used is one that assures their consistency with estimates of productivity and investment, which can be described as follows. Total growth, g, comes from the accumulation of factors and their productivity, in accordance with the following expression:

\[ g = p + \alpha (c \div k - d) + (1 - \alpha) h \]

where \( p \) is total factor productivity, \( c \) is the investment coefficient, \( k \) is the capital-output ratio, \( d \) is the depreciation rate, \( h \) is the growth rate of human capital (product of the labor force and years of education) and \( \alpha \) is share of capital in income. This expression is consistent with the breakdown of sources of growth based on a Cobb-Douglas production function (see below, the description of the variable “total productivity of factors”).

According to the regressions,

\[ p = p(IPi, \Delta IPi, \tau\pi, \Delta\tau\pi) \]

\[ c = c(IPi) \]

where \( IPi \) equals the levels of policy indices, \( \Delta IPi \) is the change in the trade policy index, \( \tau\pi \) is the inflation tax and \( \Delta\tau\pi \) is the change in inflation volatility (see below for the sources of these variables). Hence, combin-
ing these expressions makes it possible to evaluate the effect of each policy on total growth for each country and for the aggregate.

Note that ΔIP COM and Δσπ capture transitory effects on growth because they affect only the productivity in the three-year period when the change takes place. The rest are effects that we define as permanent. An alternative would be to start from a statistical breakdown between permanent growth and transitory growth and show that the latter depends solely on variables that enter into the differences in the regressions of the original variables. We have verified that such is the case (but have not included the results here), and that the results obtained for total growth on the basis of productivity and investment estimates fall within the ranges of estimates of direct regressions of growth.

The sources and methods for calculating the variables involved in the regressions and/or in the simulations are described below. (ESDB is the IDB’s Economic and Social Database, whose basic statistics and sources are included as Part IV of this report.)

Change of inflation: change with respect to the previous three-year period of log (1 + π) where π is average inflation (from monthly data) based on the ESDB.

Government efficiency: the simple average of indices from 0 to 1 measuring corruption, bureaucratic procedures and efficiency of the judicial sectors, taken from Mauro (1995).

Inflation tax (τπ): calculated as log(1+π) M1/GDP, where π is average inflation (from monthly data) and M1/GDP is the liquidity ratio of the economy at midyear, based on ESDB.

Inflation volatility: (σπ): average of variance of monthly inflation, based on the IMF electronic database.

Investment coefficient: ratio between gross investment at constant prices and GDP at constant prices.

Per capita income growth: ESDB.

Schooling of workforce: the years of schooling of population over 25, according to ESDB (five-year data interpolated).

Structural policies index: see Box 1 and Appendix 5.

Total factor productivity (variation of): the residual of the sources of growth equation derived from a Cobb-Douglas production function:

\[ p = g - \alpha r_k - (1 - \alpha) r_h \]

where p is total productivity of factors, g the growth rate, \( \alpha \) is share of capital in income, \( r_k \) is growth rate of physical capital stock, and \( r_h \) is the growth rate of the stock of human capital, which is defined as the product of the labor force and the years of schooling of the labor force. The value for \( r_h \) was obtained from the IEC Capital Stock Database, World Bank (1993), updated with World Bank gross investment data (maintaining for each country the capital depreciation estimated on the basis of the capital stock and investment series). In calculating \( r_h \), we used the World Bank series on the labor forces (updated with ESDB data), and the education series on the population over 25 of the ESDB. In the regressions and simulations presented, it was assumed that \( \alpha \) is 0.4, but results are just as robust when \( \alpha = 0.6 \).

Robustness exercises were performed for each of the following additional explanatory variables (none of which turned out to be statistically significant):

- Exchange rate premium: relative differential between the parallel and official exchange rates at the end of the year, according to Currency Data & Intelligence, Inc.
- Initial income concentration: measured by the Gini coefficient (Londoño and Székely, 1997).
- Initial per capita income: ESDB (measured in 1990 dollars).
- Initial per capita income gap: logarithmic difference between the real per capita income at the beginning of each three-year period and its historic maximum for each country, calculated from the ESDB.
- Per capita natural resources: (measured in dollars) according to Serageldin (1997).
- Real exchange rate index: calculated by ESDB with currency baskets according to each country’s trade, base 1990 = 100.
- Real interest rate: defined as log(1+I)/log(1+π), where I is the average nominal interest rate (from monthly or quarterly data according to availability of information) and π is average inflation (from monthly data), based on ESDB.
- Structural policies dispersion: standard deviation of the five individual policy indices in each three-year period for each country.
- Terms of trade: (change or income effect) according to ESDB.
<table>
<thead>
<tr>
<th>Regression number:</th>
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<th>1.3</th>
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<th>1.7</th>
<th>1.8</th>
<th>1.9</th>
<th>1.10</th>
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<tbody>
<tr>
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<tr>
<td>Growth</td>
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<tr>
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<td>(2.71)</td>
<td>(2.71)</td>
<td>(2.34)</td>
<td>(2.73)</td>
<td>(2.73)</td>
<td>(2.73)</td>
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<td>Investment</td>
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<tr>
<td>Rate</td>
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<td>(-1.57)</td>
<td>(-3.64)</td>
<td>(-3.64)</td>
<td>(-1.81)</td>
<td>(-1.92)</td>
<td>(-2.56)</td>
<td>(-3.48)</td>
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<tr>
<td>Percent change (% of GDP)</td>
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<tr>
<td>Policy indices (scale from 0 to 1)</td>
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<td>a. Levels</td>
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<tr>
<td>Simple average, 5 areas</td>
<td>0.095</td>
<td>0.065</td>
<td>0.081</td>
<td>(2.50)</td>
<td>(1.73)</td>
<td>(2.54)</td>
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<td>Average combined with</td>
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<td>government efficiency</td>
<td>(4.53)</td>
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<td>(2.15)</td>
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<td>(1.64)</td>
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<td>average for 5 areas</td>
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<td>(1.24)</td>
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<td>with government efficiency</td>
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<td>(0.82)</td>
<td>(0.82)</td>
<td>(3.45)</td>
<td>(3.45)</td>
<td>(3.45)</td>
<td>(3.45)</td>
<td>(3.45)</td>
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</tr>
<tr>
<td>Change in trade policy</td>
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<td>0.062</td>
<td>0.062</td>
<td>0.211</td>
<td>0.159</td>
<td>0.067</td>
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<td>0.062</td>
<td>0.062</td>
<td>0.211</td>
<td>0.159</td>
<td>0.067</td>
<td>0.093</td>
<td>0.057</td>
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<tr>
<td>Change in financial policy</td>
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<td>0.062</td>
<td>0.062</td>
<td>0.211</td>
<td>0.159</td>
<td>0.067</td>
<td>0.093</td>
<td>0.057</td>
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</tr>
<tr>
<td>Change in labor policy</td>
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<td>0.062</td>
<td>0.062</td>
<td>0.211</td>
<td>0.159</td>
<td>0.067</td>
<td>0.093</td>
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<tr>
<td>Durbin-Watson*</td>
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<td>2.43</td>
<td>2.54</td>
<td>2.62</td>
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</tr>
</tbody>
</table>

Note: Panels of three-year observations by country; T-statistics in parentheses.
* Estimates corrected by panel. Only in regressions for investment is there significant evidence of autocorrelation.
** The values obtained indicate that both models show consistent estimates.
This appendix analyzes the relationship between structural reforms and employment, using the same panel regressions methodology as Appendix 1. The evidence is composed of regressions for the capital-output ratio (change of log) and for the rate of employment growth. The results show that (i) the trade and financial reforms are associated with increases in the capital-labor ratio, (ii) increases in the capital-labor ratio are associated with reductions in the rate of employment growth and (iii) the reforms are associated with lower rates of employment growth, after controlling for the effect of economic growth and real wages. Hence, the evidence consistently tends to indicate that structural reforms have reduced the rate of employment growth.

The capital-labor ratio, calculated for 13 countries (Argentina, Brazil, Chile, Colombia, Costa Rica, Guatemala, Jamaica, Mexico, Nicaragua, Paraguay, Peru, Uruguay, and Venezuela) is based on capital series derived from the IEC Capital Stock Database (1993), updated with World Bank gross investment data (maintaining for each country the capital depreciation estimated on the basis of the capital and investment stock series). Employment statistics (which are also involved in the capital-labor ratio) and the real wages series come from the IDB’s new database based on national statistics.\(^1\)

To control for the effect of economic growth on employment growth, the independent variable used is the product of GDP growth and the labor flexibility index (see Appendix 5). Implicit in this specification is that employment-output elasticity is proportional to labor market flexibility. When controlled directly for the GDP growth rate, the coefficient is not found to be significant.

<table>
<thead>
<tr>
<th>Employment Regressions</th>
</tr>
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<tr>
<td><strong>Dependent variables</strong></td>
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<tr>
<td>Change of the capital-labor ratio logarithm</td>
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<tr>
<td><strong>Regression number:</strong></td>
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<tr>
<td><strong>Independent variables</strong></td>
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<tr>
<td>Constant</td>
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<tr>
<td>Real wages (change in logs)</td>
</tr>
<tr>
<td>Capital-labor ratio (change in logs)</td>
</tr>
<tr>
<td>GDP growth x index of labor flexibility</td>
</tr>
<tr>
<td><strong>Structural policy indices:</strong></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Trade</td>
</tr>
<tr>
<td>Trade (lagged)</td>
</tr>
<tr>
<td>Financial</td>
</tr>
<tr>
<td>Financial (changes)</td>
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<tr>
<td><strong>Regression statistics</strong></td>
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<tr>
<td>R²</td>
</tr>
<tr>
<td>Durbin-Watson</td>
</tr>
<tr>
<td>Number of observations</td>
</tr>
</tbody>
</table>

Note: Estimation method is generalized least squares (random effects). T-statistics in parentheses. For regressions 2.1 through 2.4, time periods used are 1987-89, 1990-92, and 1993-95; for regressions 2.5 and 2.6, three-year periods since 1984.

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\(^1\) Detailed descriptions of sources and databases are available at the IDB, Department of Social Programs and Sustainable Development, Division of Social Programs. See O’Connell (1997).
APPENDIX 3.
ECONOMETRIC ESTIMATES OF THE EFFECTS OF REFORMS ON VOLATILITY

The panel regressions method (see Appendix 1) was also used to evaluate the effects of the reforms on the volatility of a number of variables. The dependent variables are the three-year averages of volatilities calculated with monthly or annual data, depending on the availability of information, as explained below. The main explanatory variables are the total or by-area structural policy indices, and sometimes the volatilities of other variables. The econometric results were proven to be robust in all cases to the volatilities of the other variables studied—the real exchange rate, fiscal deficit, net external capital flows (as percent of GDP) and their volatility, the terms of trade and their volatility, and dummy variables for the three-year periods. The sources and calculation method of the variables involved in the regressions are described below:

GDP volatility: uses annual data and is defined as average in three-year periods of absolute change in growth of GDP over previous year. GDP data come from the ESDB.

Inflation volatility: calculated as the standard deviation in each year of the monthly observations of variation in the consumer price index, based on IMF statistics.

Monetary volatility: refers to the volatility of means of payment (M1) calculated as the standard deviation in each year of monthly observations, based on IMF statistics.

### Regressions of Volatilities

<table>
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<th>Inflation</th>
<th>Money supply</th>
<th>Fiscal deficit</th>
<th>Real exchange rate</th>
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<td>3.2</td>
<td>3.3</td>
<td>3.4</td>
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<td></td>
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<td>-0.96</td>
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<td>(-28.4)</td>
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<tr>
<td>Total</td>
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<td>(-3.73)</td>
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<td>0.041</td>
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<td>69</td>
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Note: Method of estimation is generalized least squares (random effects). T-statistics in parentheses. For all regressions, the time periods used are 1987-89, 1990-92, 1993-95.
Fiscal deficit volatility: uses annual data and is defined as the average in three-year periods of absolute change in the fiscal deficit as percentage of GDP over previous year. Data from the ESDB.

Real exchange rate volatility: calculated as standard deviation for each year of monthly observations of the real exchange rate, based on nominal exchange rate and inflation statistics from the IMF.

Volatility of external capital: uses annual data and is defined as the average in three-year periods of absolute changes with respect to the previous year of the net external capital flow as a percent of GDP. The net capital flow is calculated as the variation of international reserves minus the external current account balance, based on ESDB.

The results presented in the text (see Table 7) are based on the following regressions: 3.2, 3.4, 3.6, 3.7, and 3.8.

APPENDIX 4.

SOURCES OF INFORMATION AND ECONOMETRIC ESTIMATES OF DISTRIBUTIVE EFFECTS OF STRUCTURAL REFORMS

Databases

According to Deininger and Squire (1997), a “good quality” database on income distribution should meet at least three requirements: (i) it should be obtained directly from household surveys of income or spending with national coverage; (ii) contain information on all sources of income; and (iii) have as its unit of observation households or individuals. The main problem faced in estimating inequality and poverty for any region is that not all countries have such information, and the region of Latin America and the Caribbean is no exception.

Deininger and Squire (DS) report 109 cases of “good quality” information for Latin American and Caribbean countries during 1950 to 1994. Each item of information consists of a Gini index and, in almost all cases, income or consumption distribution by quintiles of the population. Following the criteria of these authors, in this study 32 additional observations not included in DS are gathered. Because our analysis is limited to changes in distribution between 1970 and 1995, we excluded observations prior to that period and the cases in which there were fewer than three usable observations, or where DS do not report distribution by quintiles. The base finally used encompasses 104 observations (72 of them from DS) for 13 countries, representing 82 percent of the population of the region. The observations are distributed by periods as follows: 30 for the seventies, 43 for the eighties, and 31 for the nineties.

Changes over Time

Because adequate information for all the LAC countries and for all the years of the 1970-95 period does not exist, some assumptions are required to generate comparable series over time before estimating the level of inequality and poverty in the region as a whole. For the purposes of this study, we have estimated income distribution by quintiles for each country and for each of the 26 years making up the period under study, making linear interpolations between the points on which we have information.

We use the methodology of Datt and Ravallion (1992) to estimate the proportion of poor people on the basis of the parameters of the Lorenz curve, the sum for the poverty line, and the average income or consumption of the population. For our calculations, we define poverty lines of one dollar and two dollars a day in 1985 adjusted for purchasing power and exchange rate. We used private per capita consumption based on national accounts adjusted for exchange rate and purchasing power with 1985 as the base year. The total poor population

---

2 The distribution of observations per country is: Bahamas (10), Brazil (16), Chile (8), Colombia (8), Costa Rica (10), Dominican Republic (4), Guatemala (3), Honduras (3), Jamaica (7), Mexico (5), Panama (5), Peru (4), Venezuela (21).

3 Where no direct information existed for 1995, the trend of the previous 5 years was extrapolated. Pre-1970 surveys were also used to make interpolations up to the moment of the next survey.

4 Private consumption was obtained directly from each country’s national accounts. The data on adjusted GDP per capita, reported in Penn World Tables, were used to estimate private per capita consumption, adjusted for purchasing power and exchange rate.
for the region was calculated by expanding the estimate that we obtained for 13 countries.\textsuperscript{5}

**Econometric Aspects**

With the previous data and techniques, two econometric exercises were carried out. The first exercise checked the impact of structural reforms on income distribution, by using directly as explanatory variables the (orthogonal components of the) structural reform indices.\textsuperscript{6} The independent variables are either the proportions of income received by each quintile, or the ratio between the proportions of income going to quintiles 5 and 1. In each regression we experimented with estimating the equation by both fixed and random effects, and we include a dummy variable per country. In all cases the coefficients passed the Hausman test, indicating that the method of random effects (presented in the table) is adequate for our data. Because the structural reform indices exist for the years after 1985, we only used observations from that year (without interpolated data, for obvious reasons).

The second exercise determined the effect of policies on the same dependent variables by an indirect method. The logic of the exercise is as follows. By estimates made with the complete database since 1970, we know that economic growth (together with other variables such as inflation and education) affects income distribution (as reported in Londoño and Székely, 1997). We also know that structural reforms affect growth through productivity and investment (see Appendix 1). Therefore, we can indirectly establish the effect of the reforms on distribution.

We calculated the productivity and investment generated by the reforms since 1985 on the basis of regressions 1.7 and 1.11 in Appendix 1, and used these effects as variables explaining distribution. To avoid problems of omitted variables, we also included as explanatory variables those macroeconomic and structural variables that were significant for the entire period (see Londoño and Székely 1997). Because growth is one of these explanatory variables, in order to avoid simultaneity with the productivity and investment variables, we subtracted from growth the component due to the effect of the reforms on productivity and investment.

In short, regressions 4.7 to 4.15 presented in this appendix employ four groups of variables: (i) those that capture total macro fluctuations, (ii) the variable that reflects growth independent of structural reforms, (iii) those that capture the effect of the reforms on investment and productivity, and (iv) the structural variations of the level and distribution of education generated by using the database of Barro-Lee.\textsuperscript{7} The calculations of random effects are reported, it having been established that they pass the Hausman test.

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\textsuperscript{5} Because poverty is measured in terms of individuals, it was necessary to assume that income distribution by households and individuals is the same.

\textsuperscript{6} The indices (Lora 1997) are described in Appendix 5. The orthogonal components method is described in Appendix 1.

\textsuperscript{7} To estimate the standard deviation of years of education (used as an indicator of the distribution of human capital), we disaggregated the original data that indicate proportions of the labor force in various educational categories. We divided the categories and assigned a number of years of education to each of them, thereby making it possible to measure both the average and the spread of the years of schooling.
### Regressions of Distributional Effect of Structural Reforms, 1985-95 (cont.)

#### Dependent variable: Income share of each quintile

<table>
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<tr>
<th>Regression number</th>
<th>Change in inequality (Quintile 5/ Quintile 1)</th>
<th>Quintile 1</th>
<th>Quintile 2</th>
<th>Quintile 3</th>
<th>Quintile 4</th>
<th>Quintile 5</th>
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<td>4.9</td>
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#### Independent variables

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#### Macro independent of reforms

| Changes in per capita GDP | -0.01 | -0.005 | 1 | 0.09 | 0.011 | 0.8 | -1.1 |
| (0.23) | (1.8) | (1.9) | (1.8) | (0.7) | (0.46) | (0.8) |         |

#### Macro generated by reforms

| Investment generated by reforms | -34.71 | -14.3 | 5.9 | 14.5 | 1.44 | -5.17 | -3.4 |
| (1.8) | (-1.5) | (2.1) | (1.5) | (1.0) | (-0.3) | (-0.3) |         |
| Productivity generated by reforms | 2.73 | 4.6 | 6.2 | -0.7 | 1.23 | 2.8 | -0.22 |
| (0.21) | (0.3) | (0.4) | (-0.1) | (0.2) | (0.6) | (-0.7) |         |

#### Structural variables

| Level of education | -6 | -6.8 | -7.3 | -5.8 | 4.03 | 2.3 | 1.7 | 1.4 | -1.5 |
| (2.1) | (-2.3) | (-2.4) | (-2.0) | (1.1) | (1.4) | (1.3) | (1.4) | (-1.9) |         |
| Distribution of education | 2.1 | 1.7 | 1.9 | 2.3 | -2.2 | -0.85 | -0.62 | -0.6 | 0.5 |
| (2.8) | (2.1) | (2.3) | (3.0) | (-2.1) | (-1.9) | (-1.8) | (-2.1) | (2.4) |         |
| Interaction between reforms and distribution of education | 5.1 | 6.5 | -6.9 | -2.1 | -1.23 | -1.7 | 1.12 |
| (2.2) | (2.5) | (-2.0) | (-1.4) | (-1.1) | (-1.8) | (1.8) |         |         |
| Constant | 0.03 | 0.04 | 0.7 | 0.73 | -0.06 | -0.02 | -0.01 | -0.01 | 0.007 |
| (1.0) | (1.3) | (1.8) | (2.0) | (-1.2) | (-0.9) | (-0.6) | (-0.3) | (0.7) |         |
| R-squared | 0.28 | 0.21 | 0.24 | 0.35 | 0.23 | 0.22 | 0.17 | 0.25 | 0.25 |
| Number of observations | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 |         |

**Note:** Method of estimation is generalized least squares; the regressions were estimated as a panel with random effects, and all the regressions pass the Hausman test. T-statistics in parentheses.

**Source:** Regressions estimated on the basis of data from 13 Latin American countries with information for the 1970-1995 period.
APPENDIX 5
SOURCES OF THE POLICY INDEX

The structural policy index is a simple average of the policy indices of the following five areas: (i) trade policy, (ii) tax policy, (iii) finance policy, (iv) privatization, and (v) labor legislation. In each area there can be one or more basic indices, which are then averaged. Each of the basic indices can move on a scale of 0 to 1, where 0 corresponds to the worst observation for any year and any country within the period and countries considered, and 1 is the best. The basic indices used for each area have been listed in Box 1. The following were the sources of information used:

Trade. Information on average tariffs (including surcharges) and their dispersion for 11 countries (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela) comes from research now being conducted in the OAS under the direction of Juan José Echavarría, covering the years, 1986, 1988, 1990, 1992, 1994, and 1995. The intervening years were interpolated. For the eight remaining countries (Costa Rica, El Salvador, Guatemala, Honduras, Jamaica, Nicaragua, Dominican Republic and Trinidad and Tobago) the information used came from Edwards (1995) and the IDB, Department of Integration and Regional Programs, obtained from national sources. In some of these countries where recent information covered only the year of greatest trade liberalization identified by this source and 1995, a non-linear interpolation between both points was used, assuming that each year tariff reduction was two-thirds of that achieved until the following observation. The tariff dispersion for these eight countries was calculated on the basis of a non-linear estimate using the data from the 11 countries with this information.

Taxes. For the 1990-1995 period, the basic source was CIAT (Centro Interamericano de Administración Tributaria), Estructura y Administración de los Impuestos sobre Rentas y Ventas en Países Miembros del CIAT and the accompanying CD-ROM. For previous years, the sources were Coopers and Lybrand, International Tax Summaries, various issues; and Price Waterhouse, Individual Taxes: A World Wide Summary and Corporate Taxes: A World Wide Summary, various issues. The VAT productivity indicator was calculated on the basis of the Government Finance Statistics Yearbook and Recent Economic Developments, both from the IMF.


Privatization. Privatization amounts in dollars come from the database of the World Bank’s International Economics Department. Information for countries not included in this database (Belize, Dominican Republic, El Salvador, Guatemala, Guyana, Haiti and Suriname) come from the national governments. The cumulative value of privatizations as a percent of GDP was divided by the average public investment rate as a percent of GDP between 1985 and 1987, calculated from the IMF Government Finance Statistics Yearbook.

Labor. The indicators used to measure labor legislation flexibility were compiled by the Office of the Chief Economist of the IDB (and partly reported also in IDB 1996, II:6), entirely on the basis of information provided by national officials. The social security contributions indicator comes from several issues of Social Security Programs Throughout the World, U.S. Department of Health and Human Services.
### Structural Policy Index

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Note: Simple averages of policy indices in five areas of reform. On a 0 to 1 scale, 0 is the lowest and 1 the highest score over the total period for all the countries considered.
Part THREE

Fiscal Stability with Democracy and Decentralization
INTRODUCTION

Latin America and the Caribbean are becoming more democratic. Among the borrowing members of the Inter-American Development Bank, only 13 countries had democratic governments in 1980. Today, all 26 countries are not only democracies but also are becoming more decentralized. While only three countries in the region elected their mayors directly in 1980, 17 countries today use this form of local representation, while in six others mayors are appointed by elected municipal councils (see Figure 1).

Political decentralization has been accompanied by an increasingly decentralized fiscal structure. The share of state and local governments in total government spending increased from 15.6 percent in 1985 to almost 20 percent a decade later. This process of decentralization has transferred greater responsibilities to subnational governments in providing services such as education, health, housing, roads, and water.

The move towards deeper decentralized democracy has coincided with stabilization of the region’s economies and the adoption of structural reforms reviewed in Part II of this Report. This is perhaps surprising because much has been written suggesting that stabilization and structural reforms are easier to achieve under authoritarian governments, since these regimes do not need the same degree of social consent required in a democracy. The Latin American experience is in sharp contrast with this view.

Moreover, much economic theory has also suggested that democracy may have an inherent fiscal deficit bias that is aggravated under more federal, decentralized structures. Therefore, it is also important to note that as decentralized democracy has deepened in Latin America, deficits have come down: after reaching 9 percent of GDP in 1982-83, they have averaged 2 percent in the 1990s. In fact, as Figure 1 also shows, the number of countries with deficits under 3 percent of GDP went from five in 1982 to 18 in 1996.

One such example is the so-called "commons problem," which is particularly relevant for fiscal systems. To get an intuitive feeling for the nature of the problem, imagine yourself in a restaurant that offers two dishes: chicken for $10 and lobster for $50. You prefer chicken because you find the $40 price difference quite steep. Think now of what happens if you go with nine friends and expect to share the bill. If all the others ask for chicken, then you have the choice of ordering chicken and paying $10 or asking for lobster and paying only $14 (that is, \(9 \times \$10 + \$50\)/10). Hence you are tempted to order lobster. But what if all the others plan to order lobster? Not only would lobster then cost you $50, but the chicken would cost $46 (that is, \(9 \times \$50 + \$10\)/10). So in this latter scenario as well, you might as well order lobster. Hence, no matter what the others plan to do, you will ask for lobster if you go in a group, even though you would have ordered chicken had you gone on your own.

The problem highlighted in this example is caused by the fact that people choose independently but pay collectively. Such interaction distorts collective choices and makes them inefficient from the point of view of individual participants. The fiscal decisionmaking process is similar in that different constituencies decide on spending initiatives that are paid out of a common pool of tax resources. This coordination problem, if unchecked by the institutional framework, can lead to excessive use of the common resource, i.e., excessive deficits and debts. The problem is potentially even more serious with decentralization, since it can enable one jurisdiction to shift the tax burden onto other localities.

This example is just one of the perils of collective choice. It gives hints as to how to change the decision-
making process in order to avoid pitfalls. But it is not the only problem. Other problems discussed include:

- Achieving adequate political representation of individual electoral preferences (aggregation problem);
- The incentives of politicians and bureaucrats to follow their own interests and not those of the electors (agency problem);
- The difficulty in making credible commitments about future policies (credibility problem).

In this light, Latin America's fiscal achievements are so much more impressive. They show that democracies can be made to work well. Nevertheless, these positive trends occur in the context of old and new unsolved problems, as discussed in Chapter 1. First, the region still has a bias towards deficits that has not been contained with equal success in all countries. Second, fiscal accounts remain vulnerable to the volatility that characterizes Latin American economies, which implies that the political system must deliver more wrenching adjustments in a shorter span of time than industrial democracies.

Third, fiscal policies have not played the stabilizing, anticyclical role that economic theory suggests they should and that characterizes the experience of most industrial democracies. Instead, fiscal policy has tended to react to the large shocks it must absorb mainly in a procyclical manner, i.e., it has been expansionary in booms and especially contractionary in downturns, thus aggravating rather than cushioning the underlying volatility.

There is also evidence that many Latin American governments suffer from electoral budget cycles. Budget deficits tend to grow in the run-up to the election, forcing costly adjustments in the following year.

Some of these features, like the bias towards deficits, may reflect the same political distortions that have been well documented for the industrial democracies, with similar negative effects on their fiscal outcomes. Others reflect specific interactions between these political distortions and the characteristics of the Latin American economic context, especially greater economic volatility and a weaker tax base. In particular, Chapter 1 argues that countries in the region may be trapped in a vicious circle: their initially higher volatility creates the need for larger and more frequent fiscal adjustments. Doubts about the ability of the political system to deliver those adjustments may cause access to financial markets to disappear in bad times. Lack of financial resources enforces a procyclical fiscal reaction just when a more stabilizing response would have been most valuable. The procyclical response then accentuates the underlying macroeconomic volatility.

Fiscal performance is affected by interaction between problems in the decisionmaking process and an economic environment that is less forgiving. Chapter 1 analyzes the economic environment and fiscal performance, then looks at the decisionmaking process. Chapter 2 focuses on the way the fiscal decisionmaking process is organized at the national level, while Chapter 3 studies fiscal decentralization.

Chapter 2 looks specifically at electoral systems and budget institutions. The former are important because they affect how individual preferences of voters are aggregated into social choices and political majorities. The chapter finds evidence that systems that rely more on proportional representation, as opposed to first-past-the-post systems, tend to generate a greater number of effective political parties, less congressional support for the government, and greater difficulty in addressing issues of deficit bias and procyclicality. They also tend to lead to larger governments, which may be explained as a consequence of the fact that proportional representation systems must include the preferences of a larger share of voters.

Chapter 2 also discusses budgetary institutions, i.e., the set of rules whereby budgets are drafted, approved and carried out. These rules are important because they may affect the way in which coordination, credibility and agency problems are dealt with. For example, spending ministers, the executive branch's budget authority, legislators, state enterprises and the public at large must interact with one another in the budget process. If the process is not well structured, as in the chicken and lobster problem, it may lead to excessive spending, deficits and debts, and inadequate management of both good times and bad, as the political process may not react appropriately to changing circumstances. Countries with transparent budget institutions that put explicit limits on the deficit and provide hierarchical or agenda-setting powers in the budget process for the finance minister and the executive vis-à-vis congress can put an effective check on the bias towards deficits and debts. This shows that strong budget institutions can overcome the fiscal consequences of proportional representation, indicating that countries need not renounce this type of electoral system in order to achieve fiscal control.

However, existing institutions have yet to deal effectively with the problems of procyclicality and electoral budget cycles. The chapter ends with a set of ideas on the types of reform that could be effective on these fronts.

Chapter 3 looks at the challenges of decentralization. It reviews the way subnational government officials
are elected and studies the distribution of the power to tax, spend and borrow in the different countries, together with the vertical financial relations and imbalances between the different levels of government. It studies the potential benefits that political decentralization can provide in terms of a better match between citizens’ preferences and public priorities, and the effect that elections may have in disciplining public officials. It also explores the risk of coordination failures emerging from the incentives that one jurisdiction has to shift the burden onto taxpayers from other jurisdictions. These incentives tend to be created when subnational governments face soft budget constraints that arise when they can force the federal government to bail them out of financial troubles.

Budget constraints can be ameliorated by:

- Limiting vertical imbalances by assigning to subnational governments those taxes that can be efficiently imposed and collected at that level;
- Reducing the discretionality and instability of government transfers;
- Setting mandatory constraints on borrowing.

Chapter 3 also includes a discussion on how to implement these strategies.

Latin America has opted for democratic participation and macroeconomic stability. The challenge is to learn about the institutional arrangements that can best deliver on both fronts.
Democratic forms of decisionmaking possess crucial advantages over the alternatives; they provide legitimacy, mechanisms for the revelation of the preferences of the citizenry, and ways to discipline unresponsive governments. However, as we illustrated very briefly in the Introduction, and will describe in considerably more detail in Chapter 2, democratic decisionmaking about public spending and taxation involves a process of collective choice that carries with it potential pitfalls. These provide some reason to be concerned that democratic politics will all too often deliver expensive lobster, when chicken would have been the more appropriate choice. Nevertheless, as Latin America has become more democratic and fiscal decisionmaking more decentralized, fiscal deficits have declined dramatically. This demonstrates that the problems that may be posed by the political decisionmaking process can be overcome. It does not, however, mean that they have all been solved, or that adaptations could not be made to the institutional context that surrounds fiscal decisionmaking to promote even better fiscal outcomes in the future.

In this first chapter we set the stage for the analysis in subsequent chapters by laying out some stylized facts about fiscal outcomes in Latin America. The objective is in part merely descriptive, attempting to answer some of the following questions: What is distinctive about the Latin American state, and about the economic environment in which it exists? In what dimensions are Latin American governments big, and in what dimensions are they small? How do governments of the region spend the resources that they obtain from their citizenry, and how do they finance themselves?

These descriptions also serve a diagnostic purpose, highlighting the special challenges for the management of fiscal policy posed by the structure of the Latin American public sector and the characteristics of its macroeconomic environment, and identifying areas where fiscal policy may not have met these challenges as effectively as possible. Here we focus on three main diagnostics: Have Latin American governments exhibited a deficit bias, thus leaving their economies with larger public debts than might be optimal? How well has fiscal policy been managed in a cyclical context; that is, has fiscal policy leaned against the wind of economic shocks and fluctuations, or has it instead amplified them? And finally, have fiscal outcomes displayed an important tendency to be influenced by political pressures associated with elections?

Throughout the analysis we use industrial country experience as a benchmark by which to evaluate Latin America. This is for a number of reasons, the most important of which is that the industrial economies share with Latin American democracies similar political institutions. The comparison with the industrial countries is also valuable because their experience has inspired the theories about fiscal policy that are available to guide policymakers in the region.

While Latin America shares similar political institutions and decisionmaking structures with the industrial economies, the economic context within which Latin American institutions must operate is very different, and is in fact substantially more demanding. A highly volatile macroeconomic environment generates large fluctuations in fiscal revenue, and frequently creates the need for very large fiscal adjustments, while relatively small
budgets reduce the fiscal room for maneuver. We find, moreover, that the volatility of fiscal outcomes is more than just a passive response to macroeconomic shocks, for in Latin America, and in contrast to the industrial economies, fiscal outcomes have displayed an important procyclicality, with public spending expanding in economic good times and collapsing in bad times, thus amplifying rather than absorbing shocks to the economy. Finally, and again in contrast with the industrial economies, we find evidence of a large electorally-motivated fiscal cycle, suggesting that politically-motivated fluctuations in fiscal policy have been a problem in at least some countries.

Thus, while Latin American democracies share similar political institutions with the industrial economies, these institutions operate in a very different and in many ways less forgiving context. This may give rise to problems in fiscal performance such as the ones that we identify here. But as recent Latin American experience has shown, these problems can be overcome with appropriate institutional adaptations to the more complex environment. Subsequent chapters of this Report build upon the stylized facts presented here to deepen our understanding of the interaction between the macroeconomic environment, institutions and fiscal performance, providing insights into the kinds of institutional adaptations that can promote even more effective fiscal policymaking in the future.

SIZE AND STRUCTURE OF THE LATIN AMERICAN STATE

Smaller Governments

The public sector of the typical Latin American country spends roughly 25 percent of GDP, approximately half of the almost 50 percent of GDP spent by the typical industrial country government.¹

The most notable difference between Latin America and the industrial countries is in the size of spending on social security systems, where industrial country spending of roughly 15 percent of GDP dwarfs Latin America’s average of 2.5 percent. Latin America also spends much less than the industrial economies on “core” government functions, defined here as all areas other than interest, social security, and public investment. (The term “core” is used primarily for want of a more descriptive term for the wide variety of functions financed by public spending on items other than interest, social security and public investment. The term should not be interpreted to imply that these core activities are in some way more fundamental or basic than the others.) Spending on these core functions amounts to roughly 25 percent of GDP in the industrial economies, but only 15 percent in Latin America.

Latin American governments are not small in every dimension, however. Most notably, they typically spend much more on public investment—over 6 percent of GDP compared with less than 2 percent in the industrial economies.

Nor are all governments of the region equally small—there is enormous variation in the size of Latin American governments, especially among the smaller and poorer countries of the region. Public spending in Barbados amounts to 35 percent of GDP, while spending in Bolivia, Trinidad and Tobago, Uruguay, Honduras, Jamaica, Brazil and Venezuela has averaged 30 percent of GDP or more during the 1990s.

At the other extreme, public sector spending in Haiti and Guatemala amounts to only 12 percent of GDP, while spending in the Dominican Republic, El Salvador, Paraguay and Peru has averaged well under 20 percent.

Differences in government size are partly attributable to differences in per capita income. Around the world, wealthier countries have tended to have large governments, and Latin America is no exception. The Latin American economies with the lowest per capita income spent, on average, roughly 20 percent of GDP, while the

¹ These figures understate public sector spending to some extent because they exclude from total spending current (noncapital) spending by public enterprises. Figure 1.6 includes both current and capital spending of public enterprises, but for only 13 of the region’s larger economies.
richest countries of the region spent an average of nearly 30 percent. However, income explains only part of the variation in government size in the region. As Figure 1.4 illustrates, while there is a tendency for governments to be larger in wealthier countries, there are a number of low-income economies, most notably Belize, Guyana, Nicaragua and Suriname, that are much larger than might be expected on the basis of their relatively low income.

By the same token, there are other economies, notably the Bahamas and to a lesser extent Chile, where the public sector is substantially smaller than would be expected on the basis of their relatively high income levels.

We will explore in more detail below how the relationship between income and government spending differs greatly depending on the type of government activity.

**Governments Have Become Smaller**

In sharp contrast with the industrial economies, where public spending has generally risen throughout recent decades, government spending in Latin America declined as a share of national income during the 1980s. Despite some recovery of public spending in the first half of the 1990s, government spending in Latin America remains below the peak attained during the early 1980s.

The decline in spending by nonfinancial public enterprises has been even more dramatic, reflecting restructuring and privatizations that have taken place as part of the region’s reforms during the past decade. (These reforms are discussed in more detail in Part II of this Report.)

The result is that total spending by the nonfinancial public sector, which includes spending by all levels of government and by nonfinancial public enterprises, now stands at nearly 10 percentage points lower than in the early 1980s.

**Small Governments Reflect Limited Fiscal Capacity**

The small size of Latin American governments reflects the fact that these governments have a much more limited capacity to raise revenue to finance public spending than do industrial country governments. This limited fiscal capacity stems from the region’s large informal sectors, which largely escape direct taxation, as well as a more limited bureaucratic capacity to collect taxes. As a result,
to finance even the relatively small states that exist in the region, governments have had to impose relatively high rates of tax (in many cases comparable to those observed in the industrial economies) on those businesses and individuals who do pay taxes.  

This means that many governments of the region have a relatively limited scope to increase revenue simply by adjusting tax rates upward, which could prove both politically and economically counterproductive. This point has important implications for the management of the large fiscal shocks that affect the region.

Revenue Structures Pose Challenges for Fiscal Policy Management

Table 1.1 summarizes some key facts regarding the region’s fiscal revenue and places them in an international comparative perspective. Several differences between Latin American and industrial country revenue structures clearly emerge. First, governments in Latin America are substantially more reliant upon nontax revenue sources than are industrial country governments, reflecting the importance of natural resource rents and income from state-owned enterprises in total revenue.

Latin American governments are also more reliant upon indirect taxes (most notably trade taxes), and substantially less reliant upon direct taxes (taxes on income and contributions to the social security system) than the industrial economies.

This revenue structure poses important challenges for the management of fiscal policy in Latin America. Because the underlying bases of nontax and indirect taxes are relatively volatile, those taxes are particularly unstable revenue sources. The structure of fiscal revenue thus exposes national budgets to larger shocks than they would face with a revenue structure more like that of the industrial economies, requiring the political system to cope with the need to bring about frequent and large fiscal adjustments. Chapter 2 of this section describes some of the factors surrounding the democratic decision-making process that may impede timely fiscal adjustment, as well as institutional structures that can improve the capacity for democratic decisionmaking to cope with the required fiscal adjustments.

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2 See Part II of this Report for a more detailed description of the tax systems of Latin American countries and how they have evolved in response to the reform programs of the past decade.
Latin American Governments Spend Differently than Industrial Countries

As we noted above, the mix of activities carried out by Latin American governments differs dramatically enough from those of the industrial economies that a meaningful description of the size of government requires an examination of several dimensions.

As a share of GDP, Latin American governments tend to spend much less on social security systems, about as much on interest, substantially more on public investment, and less on core functions, which we define as all activities other than these three.

What Accounts for Government Size?

We have seen that governments of the region vary widely in size and that, while they tend to be small in some dimensions, they are large in others. So, an illuminating answer to the question of whether Latin American governments are large or small needs to address the questions of which governments and in which dimensions of government? The following section examines the size and structure of public spending in Latin America in order to flesh out the institutional context and highlight some political forces that appear to underlie fiscal outcomes in the region.

Small Social Security Systems

The single largest difference between Latin American and industrial country budgets is in the size of social security systems. Where the industrial countries spend over 16 percent of GDP, and over a third of public sector spending, Latin America spends only 2.5 percent, or less than 10 percent of total spending. This primarily reflects differences in demography. The industrial countries passed the demographic transition well before Latin America and tend to have longer life expectancies, and therefore have a much higher proportion of elderly in their population. In the industrial economies, the share of the population older than 65 is nearly 14 percent of the total, while it is less than 5 percent in Latin America.

This difference in age structure explains most of the difference between Latin American spending on social security systems and that of the industrial economies, which accounts for roughly 12 of the 14 percentage point difference in social security spending. The remaining 2 percentage points are attributable to the relative newness of most social security systems in the region, and perhaps to fiscal pressures that have made it difficult for governments to fund the systems as generously as industrial countries have done.

Figure 1.7 suggests that the age structure of the population also explains most of the differences in social security spending within the region, as well as the regional average. Argentina and Uruguay, for example, are the countries with the highest social security budgets, and they also have a much higher share of elderly in the overall population. After accounting for the impact of age on social security payments, Barbados, Jamaica and Trinidad and Tobago have relatively small social security systems,
while in Brazil, Chile, Panama and Uruguay, social security systems are large.

The relationship between age structure and social security spending carries an important policy message for Latin American fiscal policymakers over the longer term. The analysis suggests that as Latin American age structures begin to resemble those of the industrial economies, pressures for spending on social security spending will rise toward industrial country levels. This poses a potential danger for governments of the region because, while demographic factors may push the demand for social security spending to industrial country levels, the fiscal capacity of the Latin American states is likely to remain well below that of the industrial countries over the medium term. Pressures from growing social security systems could thus become a destabilizing factor over the medium and longer term unless systems are reformed and fiscal capacity increased.

High Public Investment

While overall spending is lower, public investment is much higher in Latin America than in the industrial economies. Even after the privatizing and downsizing of the 1980s and 1990s, capital spending by the typical Latin American public sector amounted to 6.6 percent of GDP during the 1990s, compared with less than 2 percent in the industrial economies. But there are enormous variations across countries, with public investment at 3 percent of GDP or less in Costa Rica, Guatemala, Haiti, Panama and Suriname, and exceeding 12 percent in Belize, Guyana and Venezuela.

Public investment levels follow some patterns that provide clues as to why public investment has been relatively high in the region and shed light on the underlying political and economic forces that drive it. First, public investment is negatively correlated with income per capita; poorer countries in the region tend to have substantially higher rates of public investment than do wealthier economies. Public investment is also very highly correlated with the share of primary exports in GDP, reflecting the fact that natural resource industries such as oil or minerals are generally carried out by public enterprises.

There are of course many factors that explain the importance of public investment, including in some cases ideological or historical influences that lie outside the scope of this chapter. But the patterns seen here also lend support to the idea, discussed in more detail in Chapter 2, that public investment has been used to compensate for the absence of a credible policy framework. The problem arises because private investors need a degree of confidence that the policy framework will remain acceptable over the medium and long run. In the absence of an appropriate institutional framework, this is hard to achieve, if only because the government is likely to change repeatedly over the investor’s time horizon. The authorities in charge today have no means of assuring that future policymakers will respect their commitments. If the political system is unable to overcome this problem, private investment and domestic income are likely to be low, and the government is likely to step in and provide some of the missing investment.

Some sectors are more affected by this problem than others. The problem is particularly acute in infrastructure investments because they often involve natural monopolies and therefore public regulation of prices. Once the infrastructure investments have been made, the regulator may perceive a strong incentive to set lower prices than the investor had been led to expect, benefiting the consuming public at the expense of the investor. Anticipating this result, private investors may refuse to invest, and the public sector will step in. A similar problem arises in natural resource based industries, in which governments and investors must negotiate the allocation of resource rents. But once the investments have been made, governments may wish to renegotiate the allocation of natural resource rents at the expense of the investor. The large public presence in infrastructure and natural resource based investments can thus be interpreted as an indication that the problem of making credible long-term commitments is an important influence on the size and structure of Latin American states, and on fiscal outcomes more generally.
Interest Payments Reflect High Levels of Public Debt

In both the industrial economies and in Latin America, interest payments comprise, on average, just over 3.5 percent of GDP. However, because Latin American governments are so much smaller, this represents nearly 15 percent of total expenditure in Latin America, as opposed to roughly 8 percent in the industrial economies.

There is substantial variation across countries of the region in the magnitude of interest payments, which range from 1 to 1.5 percent of GDP in Chile, the Dominican Republic, Guatemala, Paraguay and Uruguay, to 9.6 percent in Jamaica and 13 percent in Guyana. The magnitude of these payments primarily depends, of course, on the stock of public debt outstanding, which we discuss in more detail below. However, in several cases interest costs are much lower than would be predicted by their relatively large outstanding debts because much of the debt is highly concessional. On the other hand, for those countries of the region that rely primarily upon private financial markets, interest rates tend to be higher than those that industrial country governments pay, reflecting an assessment that the creditworthiness of Latin American governments is more limited.

Spending on Core Government Functions

In this, the largest component of government spending, Latin America spends less than industrial country governments: 15 percent of GDP against the 25 percent spent by the industrial economies.

In the Dominican Republic, Guatemala, Haiti, Peru and Paraguay, core government spending amounts to less than 10 percent of GDP, while in Argentina, Brazil, Barbados, Belize, Costa Rica, Guyana, Nicaragua, Suriname and Trinidad and Tobago, such spending is 18 percent or more, consistent with the experience of many industrial economies.

There is a tendency for the ratio of core government spending to GDP to increase as per capita income rises, though the somewhat exceptional experiences of a few smaller and poorer economies of the region—particularly Nicaragua and Suriname—obscure the pattern somewhat. These countries are special in that they receive large international transfers in support of their development efforts. Since such transfers tend to be channeled through the public sector of the recipient country, they tend to support the development of a state substantially larger than would otherwise be expected.

One interpretation of the relationship between per capita income and government size is that the demand for the public goods that are provided by core public spending tends to increase as income rises. In addition, core public spending is positively correlated with the share of the elderly in the population, suggesting that the elderly generate demand for public services other than those provided by social security systems. But it is also plausible that the association between core government spending and per capita income reflects the ability of governments in wealthier economies to mobilize a larger fraction of national income, suggesting that the limited size of core public spending in Latin America is related to constraints on the availability of public finance, as well as to factors that determine the demand for these public services. Supporting this interpretation is our finding that core public spending appears to be crowded out in countries with high public debt or public sector interest payments.

DEFICITS AND DEBT

Have They Been Particularly Big in Latin America?

It is commonly believed that fiscal deficits and resulting public debts have been much larger in Latin America than they have been in the OECD countries. There are indeed some economies of the region where this is true, most notably Guyana and Nicaragua, where during the 1990s public debt averaged five and seven times the GDP, respectively. But setting aside these unrepresentative cases, fiscal deficits and the resulting public debts have been quite similar in Latin America and the industrial economies, if measured as a share of GDP. Figure 1.10 illustrates that from 1970–95, central government deficits have
averaged about 3.8 percent of GDP in the OECD countries and 3.9 percent in Latin America. During the 1990s, fiscal deficits have been much lower, averaging only 2 percent of GDP, about half the size of those recorded in the industrial economies.

The stock of public debt, of course, is the result of deficits recorded over the long term, and the typical Latin American government possesses a public debt of around 56 percent of GDP, somewhat below the industrial country average of 68 percent. Despite this, most Latin American governments are widely perceived to be less creditworthy than most industrial country governments, as evidenced in the generally lower bond ratings and higher interest rates demanded by investors to hold Latin American debt. Guatemalan government bonds, for example, are widely perceived as a more risky investment than Italian bonds, even though Guatemala’s public debt, at about 24 percent of GDP during the 1990s, is much lower than in Italy, where the public debt is well over 100 percent of GDP.

One reason for this apparent anomaly is that GDP provides an incomplete and potentially misleading measure of the macroeconomic costs of fiscal deficits and debt. The overall size of the economy is a sensible measure when the objective is to assess how large a portion of national income is being allocated by the state. However, it is less adequate when the question is whether a given fiscal position is sustainable. This is a particularly important concern for fiscal deficits, debt, and debt service. Deficits represent postponed taxation, and today’s debts will have to be serviced out of future tax collection. Deficits and the resulting public debt may therefore pose major problems if they are large relative to a government’s tax capacity, even if they are a small share of national income.

A government’s tax capacity is, for this reason, a more informative measure with which to assess its ability to face up to present and future financial commitments than is the size of the national economy. There is some evidence that capital markets work this way in the industrial economies, since the ratio of debt service to tax revenue is a good predictor of bond ratings for state and local governments.

By this measure, Latin America’s fiscal performance during the 1990s has roughly matched that of the industrial countries, but performance over the past 25 years appears somewhat less impressive. Latin American governments possess a much more limited tax capacity than do industrial country governments, and as a share of government revenue fiscal deficits have been significantly higher than in the industrial economies. Similarly, the public debt of Latin American governments now averages about 2.5 years of tax revenue, compared with an average of 1.6 years in the industrial economies.

Another important consideration is the depth of the domestic financial system that may be called upon to finance a fiscal deficit. A fiscal deficit may generate relatively little economic and financial disruption if it is being absorbed by a very deep financial market, such as the ones that are typical of industrial economies. If, however, domestic financial markets are shallow, a deficit of the same size—measured as a share of GDP—may be highly disruptive. Financial markets are still relatively shallow in Latin America, though they have been expanding in the 1990s. Measured relative to the size of the domestic financial markets, Latin American deficits have
been similar to those of the developed countries in the 1990s. During the last 25 years, however, they have been three times as large as in the industrial countries.

In short, by all of these measures the deficits of the 1990s have been small by comparison with the industrial economies. During the past 25 years, deficits have of course been larger. Even deficits and the public debts that they have left behind have not been particularly large by the standards of the industrial economies, if measured as a share of GDP. However, if measured as a share of fiscal revenue or the size of the domestic financial system, they have been from two to three times as large as in the industrial economies.

In addition, the existing debt of Latin American governments—the legacy of many years of fiscal outcomes—remains substantially larger than that of the industrial economies if it is measured relative to the government’s tax capacity or the size of the domestic financial system.

**Different Public Debt and Deficits**

The countries of Latin America have varied widely in their recourse to deficit financing during past decades, and in the public debt that has resulted. As noted above, Nicaragua and Guyana are the economies with the most extreme public debts. During the 1990s, debt totaled more than 25 years of revenue in Nicaragua and 12 years in Guyana. However, most of their debt is highly conditional, substantially reducing the burden.

Among the other countries of the region, public debt ranges from a low of roughly a year of fiscal revenue or less in the Bahamas, Belize, Chile, Colombia and Mexico to roughly five years of revenue in Honduras and Peru. The public debt of the typical industrial country is about one and a half years, which is exceeded by most countries of Latin America. In 11 countries of the region, public debt as a share of fiscal revenue exceeds the maximum recorded in the industrial economies. These variations in indebtedness are not easy to explain with macroeconomic variables such as per capita income, suggesting that the deficits that gave rise to the debts were determined by historical factors not well measured by available data. There is a clear association between public debt, measured as a share of GDP, and international trade. Public indebtedness tends to be higher in economies that are relatively open to international trade, suggesting that markets are willing to provide more international finance to countries where there is higher export income to service the debt. The relatively weak correlations between public debt and other potential economic determinants leaves substantial scope for political or institutional determinants of governments’ propensity to run deficits and accumulate debt, a link that is explored in detail in Chapter 2 of this section.

**Have Fiscal Deficits Been Excessive?**

According to some relevant measures, then, Latin America’s fiscal deficits and public debt have tended to be higher than those observed in the developed countries, and

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3 The most indebted industrial country is Belgium, where the public debt of roughly 130 percent of GDP amounts to 2.7 years of fiscal revenue. Italy, Greece and Portugal are very close behind.
in some countries substantially so. Is this healthy, or does it mean that fiscal deficits have been excessive? Has the political system in countries of the region displayed a significant bias toward deficit finance, to the detriment of economic progress in the region?

No matter what the measure, simple comparisons with the industrial countries can shed at best limited light on this question. Judgment ultimately rests on answering the question of whether the deficits have generated costs that exceed the benefits that may have been associated with deficit spending. A complete assessment is beyond the scope of this chapter, but enough evidence has accumulated to suggest that the costs have been substantial. This evidence will be discussed in more detail below; here we merely note that large and volatile fiscal deficits have been implicated in the region's history of economic and financial instability, including highly disruptive collapses of the exchange rate regime, and that larger fiscal deficits appear to have complicated the cyclical management of fiscal policy and contributed to the destabilizing, procyclical fiscal adjustments that have been typical of the region. These costs suggest that the fiscal deficits that have characterized the region during much of its recent history have been regrettable, that the much more modest deficits that most countries have run during the 1990s are positive, and that countries would have been better off on balance if the political system had run similarly modest deficits during previous decades.

The question thus becomes, what was it about the decisionmaking process that led to apparently excessive reliance upon deficit financing? Why have some countries apparently been more successful in avoiding a bias toward deficits? Do these countries have lessons for other countries of the region to reduce the danger that the deficit bias of past decades will emerge once again? We will turn to these issues in the next chapter, but before doing so we describe some less well recognized but equally troubling characteristics of fiscal policymaking in Latin America: the volatility of fiscal outcomes, the destabilizing cyclical management of fiscal policy, and the existence of an electorally motivated fiscal cycle.

**VOLATILE FISCAL OUTCOMES**

We have examined the average behavior of fiscal outcomes, but an equally important aspect of fiscal policy lies in the variability of outcomes. This includes in particular the question of how fiscal policy has reacted to shocks and fluctuations in the macroeconomic environment. Has it been a stabilizing or a destabilizing influence? In this section we explore these issues. We find that fiscal outcomes have been highly volatile, and that this is related to the volatility of the underlying macroeconomic environment. But this is only part of the story. In Latin America, the volatility of fiscal outcomes does not reflect a passive response to a volatile economic environment, but rather a tendency for fiscal policy to amplify shocks in a procyclical manner.

**Highly Volatile Fiscal Balances**

We have seen that assessments of the size of Latin America’s debt and deficits depend upon some thinking about the appropriate measure to use in comparisons with industrial economic experience. Another equally important feature of Latin America’s experience with fiscal policy requires no such subtle judgments. By any measure, fiscal outcomes in Latin America have been very volatile, fluctuating from year to year to a much greater extent than has been typical of the industrial economies.

If the fiscal balance is measured as a share of GDP, for example, the typical change in the balance from one year to the next has been about 3 percent of GDP in Latin America, about twice the typical change of 1.5 percent in the industrial economies. If comparing the primary surplus, which excludes interest payments, the difference is even more pronounced: the typical change in this variable is 3.4 percent of GDP in Latin America, compared with 1.4 percent in the industrial economies.

If measured as a share of fiscal revenue or the financial system, these fiscal “shocks” are even larger. The typical change in the fiscal balance amounts to roughly 20 percent of fiscal revenue in Latin America, four times that observed in the industrial economies, and if measured as a share of the domestic financial system that must absorb fiscal shocks, the volatility of fiscal outcomes has been roughly 10 times as large in Latin America.

**Fiscal Volatility Associated with a Volatile Underlying Economy**

The instability of fiscal outcomes in Latin America is, to some extent, a reflection of the volatility of the underlying macroeconomic environment, which creates major...
instability in the tax base and, thus, in fiscal revenue. In Latin America as in the industrial economies, tax revenue depends upon real output and income, which determine the base for income and payroll taxes, and upon private spending, which determines the base for expenditure taxes such as value-added or sales taxes and import duties. As we have noted, Latin American budgets are more sensitive to fluctuations in private spending because they rely more heavily upon indirect, expenditure-based taxes than do the industrial economies. The tax base is also affected by changes in the terms of trade; an improvement in the terms of trade will increase non-tax revenue directly if natural resource exports are in the public sector, and will affect income taxes indirectly if the higher income from higher export prices accrues to the private sector.

Public spending is also influenced by fluctuations in the macroeconomy. For example, fluctuations in the real exchange rates or world interest rates have created instability in the real value of international debt service. The budget is thus in many cases also affected by the real exchange rate, although the sign of the effect depends upon the structure of the public sector’s income and spending commitments.\(^5\)

The economies of Latin America have been substantially more volatile than those of the industrial economies in all of these dimensions. The volatility of real output, growth and changes in the terms of trade has been roughly twice as high as in the industrial economies, and the volatility of private consumption growth and the real exchange rate has been nearly three times as high.

Note that in Latin America, unlike in the industrial economies, private consumption has been even more volatile than real GDP growth. This is significant, because it means that the expenditure-based taxes upon which Latin American governments rely heavily are particularly unstable sources of revenue.

How much of the volatility in the fiscal balance is attributable to the volatility of the underlying macroeconomic environment? After all, if Latin American deficits were volatile merely because they respond passively to fluctuations in output and other determinants of tax revenue, there may be little to worry about. However, macroeconomic fluctuations are not the primary reason for the higher volatility of Latin American fiscal deficits. To show this, we constructed a measure of fiscal shocks, which is the standard deviation of changes in the primary deficit after accounting for the typical impact on the deficit of fluctuations in real output, the terms of trade, private consumption, and the lagged deficit. As Table 1.3 indicates, these factors explain only a small fraction of the volatility of the primary deficit in Latin America, and the remaining volatility is still three times as large in Latin America as in the OECD countries, when measured relative to GDP.

Table 1.3. Macroeconomic Volatility
(Standard deviation of percentage change)

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<tbody>
<tr>
<td></td>
<td>Latin</td>
<td>Industrial</td>
<td>Latin</td>
</tr>
<tr>
<td>Real GDP</td>
<td>4.7</td>
<td>2.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Real private consumption</td>
<td>5.6</td>
<td>2.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Terms of trade</td>
<td>15.1</td>
<td>8.9</td>
<td>4.9</td>
</tr>
<tr>
<td>Real exchange rate</td>
<td>13.4</td>
<td>4.8</td>
<td>12.7</td>
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\(^5\) For example, if a government receives much of its income in the form of income from an internationally traded good, and most of its spending commitments are on domestically produced nontraded goods, a real exchange rate depreciation will tend to improve the fiscal balance. (This is the case, for example, of Venezuela.) If, on the other hand, the government’s income is more closely tied to domestic prices while it has large expenditures on imported goods and foreign currency denominated debt, a real exchange rate depreciation will tend to generate a deterioration of the fiscal deficit. In either case, volatility in the real exchange rate will be translated into instability in the fiscal deficit.
Government Revenue and Spending More Volatile than Deficits

Table 1.3 also documents the volatility of revenue and spending in Latin America. The volatility of fiscal revenue, measured as the standard deviation of percentage changes in inflation-adjusted revenue, is three times as high as in the industrial economies. This higher volatility is due in part to the region’s greater reliance upon volatile nontax revenue and indirect taxes, which are substantially more volatile than direct taxes in both regions. But it also reflects a higher volatility of every major form of revenue, the consequence of the higher volatility of the underlying macroeconomy.

The volatility of Latin American fiscal expenditure is also striking. Capital spending is twice, wage payments four times, nonwage purchases of goods and services six times, and transfer payments nearly nine times as volatile as in the OECD countries. How much is too much volatility in public spending? There are no precise answers, but the rough guidelines available suggest that the very high volatility that we observe in Latin American public spending is cause for concern. For example, under plausible conditions one should expect current public expenditure to adjust in line with permanent national income, implying a volatility not much greater than that of permanent income.\(^6\) And indeed, in the OECD countries the volatility of current fiscal expenditure is not much higher than that of GDP growth. The 15 percentage point standard deviation in Latin America’s current expenditure—roughly four times the volatility of GDP growth—would seem excessive by this standard. As noted above, it also seems plausible that these extreme fluctuations in public spending have an adverse effect on the efficiency of public services.

These costs might be worth paying if the fluctuations in public spending represented countercyclical movements in the budget that would stabilize the economy, and therefore reduce the macroeconomic costs of shocks to the economy as a whole. However, the evidence suggests that the opposite is true; public spending in Latin America has in fact been highly procyclical, thus amplifying rather than absorbing shocks. To document this fact and draw out some implications, we now turn to some evidence on the cyclical properties of fiscal policy in Latin America.

<table>
<thead>
<tr>
<th>Table 1.4. Volatility of Various Fiscal Aggregates, 1970-94</th>
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<tr>
<td>(Standard deviation of inflation-adjustment growth rates, in percent of GDP)</td>
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<tr>
<td>Measures of fiscal balance</td>
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<tr>
<td>Change in total surplus</td>
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<td>Change in primary surplus</td>
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<td>Fiscal shock</td>
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<tr>
<td>Total revenue</td>
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<td>Nontax revenue</td>
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<td>Tax revenue</td>
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<tr>
<td>Income tax</td>
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<td>Social security</td>
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<td>Indirect taxes</td>
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<td>Trade taxes</td>
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<td>Total expenditure</td>
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<td>Capital expenditure</td>
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<td>Current expenditure</td>
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<td>Wage payments</td>
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<tr>
<td>Other purchases</td>
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<tr>
<td>Transfer payments</td>
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<tr>
<td>Interest payments</td>
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</tbody>
</table>

Note: Variables are standard deviations of percentage changes in the real value of the indicated variable. All variables are deflated using the GDP deflator. All figures refer to population-weighted averages of underlying country data. In some countries, data are missing for some years, in which case we used all available observations in the relevant time period.

Source: Gavin, Hausmann, Perotti and Talvi (1996).

PROCYCLICAL FISCAL POLICY

The Case for a Countercyclical Fiscal Policy

In addition to ensuring that the public sector is solvent over the medium and long term, allocating resources efficiently among many competing priorities, and arranging an efficient and fair revenue structure, fiscal policymakers must adjust policy to short-term macroeconomic shocks that hit the economy and, thus, the budget. How, for example, should spending and tax rates be adjusted after a downturn in the economy that, in

\(^6\) See Wildavsky (1986). A more complete analysis would separate military from nonmilitary expenditures, since the former category is clearly subject to political shocks exogenous to the domestic economy. However, this has not been important in Latin America.
the absence of a policy shift, would lead to a reduction in tax revenue and an increase in the fiscal deficit? In making these decisions about the cyclical management of fiscal policy, policymakers need to bear several considerations in mind.

First, if fluctuations in the budget are due to factors that are at least partly transitory, such as a change in the terms of trade that is expected to be reversed or a transitory recession, it is efficient to maintain rough stability in tax rates and spending programs, thus generating fiscal surpluses when the economy is booming and deficits when it is in recession. The optimal mix between deficit financing and fiscal adjustment to the shock would thus depend upon the permanence of typical shocks to the tax base. When periods of recession and boom tend to be relatively short, economic downturns should be associated with large fiscal deficits and booms with large surpluses. If recessions and booms last longer, the magnitude of the fiscal swings would be moderated, but policy should still aim to achieve surpluses in good times and deficits in bad.

This is often called the “neoclassical approach” to optimal fiscal policy, because it abstracts from Keynesian considerations, such as the possibility that fiscal policy can be used to affect output and employment in the economy. When such Keynesian considerations are considered, the case for a countercyclical fiscal policy is strengthened. Fiscal authorities would want to cut taxes or increase spending during bad times to reduce the magnitude and duration of the associated recession, thus generating an even larger fiscal deficit during bad times than would occur if fiscal authorities held tax rates and spending levels constant. The same logic justifies a fiscal contraction, and thus even larger surpluses in good economic times.

An important and highly relevant caveat applies to this discussion. As has recently been emphasized by Giavazzi and Pagano (1990), changes in fiscal policy may have opposite effects if the initial fiscal position is tenuous. For example, if a government is nearly insolvent, a fiscal expansion may create such fears of a fiscal crisis that it will lead to a collapse of confidence, thus tending to reduce rather than expand domestic demand. Perotti (1995) presented evidence that suggests this is a real possibility. Giavazzi and Pagano (1990) presented theoretical and empirical evidence that the converse can also happen, that fiscal contractions can have expansionary effects on the economy if they occur when the government’s fiscal position is tenuous, thus significantly reducing the probability of a fiscal crisis.

Thus, the optimality of a countercyclical fiscal policy response to adverse shocks or a cyclical downturn of the economy should be understood to apply mainly to governments for which there are no important concerns about solvency; a barely solvent government may find it very difficult or impossible to implement such policy.

It may instead find that it has little choice but to respond to adverse shocks with a fiscal contraction, with the aim of restoring confidence in the medium-term viability of public finances, and keeping the demand for financing consistent with the more restricted supply. As we shall discuss in more detail below, this appears to be an important part of the Latin American fiscal story, and the relevant question is how Latin American governments can manage fiscal policy to facilitate a more stabilizing response to adverse shocks or cyclical downturns.

Fiscal Balances Display a Procyclical Pattern

The a priori case for a countercyclical fiscal policy is thus well established. Unless fiscal policy has been managed so that doubts about the government’s solvency preclude it, an appropriate fiscal policy would display fiscal surpluses during good times and deficits during bad. And this is more or less what we observe in the industrial economies, where the fiscal balance tends to move into deficit when output growth slows, and toward surplus when the economy grows more rapidly than normal. This is illustrated in Table 1.5, which provides estimates of the typical short-run impact on the fiscal surplus of higher real GDP growth in Latin America and the industrial economies.

The estimates suggest that a one percentage point increase in GDP growth is associated with a movement toward fiscal balance of about 0.25 percentage points, indicating that in the industrial economies fiscal policy has tended to be countercyclical, in the sense described

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7 If there are costs of very rapid fiscal adjustment, one would also expect to see transitory deficits in the aftermath of adverse shocks, and surpluses after favorable shocks, even if the disturbances are permanent.
8 This idea that governments should finance transitory shocks and adjust to permanent shocks has a long history. The basic idea has been analyzed rigorously and extended by Robert Barro, who derived the result that the optimal fiscal response to economic fluctuations involves an element of “tax rate smoothing.”
9 A second caveat has to do with lags in the implementation of countercyclical policies. If it takes a long time to move countercyclical fiscal policies through the political process, the response to recession may arrive after the recovery has begun, thus amplifying the cycle rather than dampening it. This introduces an important note of caution in attempts to introduce discretionary changes in fiscal policy, but it does not provide a rationale for procyclical fiscal policy.
above. Latin America, however, displays little or none of this countercyclicality—the fiscal balance is almost totally uncorrelated with cyclical fluctuations in output. As we shall see below, this reflects the fact that both revenue and spending have tended to decline dramatically when the economy slows down, and to rise together when the economy recovers.

This is not the end of the story, for the fiscal response to economic fluctuations depends upon the nature of the shock. Table 1.6 compares the fiscal response to cyclical fluctuations during good and bad times, where “bad times” are, roughly speaking, periods of recession, and “good times” all other times. The industrial countries display a very interesting pattern. In periods of high growth, the fiscal balance is only moderately sensitive to output shocks, increasing by 14 to 17 cents for every dollar’s worth of higher output. During bad times, however, the fiscal balance is highly sensitive to output fluctuations; for example, the fiscal balance would deteriorate by roughly 60 cents if GDP were to decline by an additional dollar. This pattern is consistent with a world in which recessions are politically or economically more costly than economic booms, and tend therefore to elicit a much larger countercyclical response.

Almost precisely the opposite pattern is observed in Latin America. The response of the fiscal balance to cyclical fluctuations appears to be similar in good times, but in bad times there is a weak tendency for the fiscal surplus to move in the “wrong” direction, with recessions being associated with a decline in the fiscal deficit, rather than the reverse.

The pattern is even more striking if we confine our attention to deep recessions. Figure 1.15 compares the cumulative change in real GDP with the cumulative change in the fiscal surplus during deep recessions. In the industrial economies, we see a very consistent relationship: large recessions are associated with large movements in the fiscal balance toward deficit. No such pattern is observed in Latin America, where, indeed, the average change in the fiscal balance in the 26 deep recessions illustrated in Figure 1.15 is positive, the “wrong” sign. This must have involved an enormous fiscal contraction, for the recession would have exerted a powerful tendency for the budget to move toward deficit if the stance of fiscal policy had remained neutral.

These episodes, and the statistical evidence described above, are all drawn from the 1970–94 period, most of which predates the fiscal consolidation of the 1990s. However, the experiences of Argentina and Mexico during the 1995 crisis provide cautionary evidence that the problem of procyclical fiscal adjustment remains relevant. Both countries fell into deep recessions in 1995, during

### Table 1.5. Cyclical Response of the Fiscal Balance, 1970-94

<table>
<thead>
<tr>
<th>Impact of real GDP growth</th>
<th>Industrial economies</th>
<th>Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total surplus</td>
<td>0.25</td>
<td>0.08</td>
</tr>
<tr>
<td>Primary surplus</td>
<td>0.22</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Note: Numbers give the typical impact of a one percentage point increase in real GDP on the budget category, derived from a statistical analysis that also controls for shocks to the terms of trade and the fiscal position in the previous year. A positive number for the surplus means that it moves in a stabilizing direction. Source: Gavin, Hausmann, Perotti and Talvi (1996).

### Table 1.6. Response of Fiscal Balance to GDP Growth in Good Times and Bad, 1970-94

<table>
<thead>
<tr>
<th>Good times</th>
<th>Industrial economies</th>
<th>Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total surplus</td>
<td>17.4</td>
<td>15.4</td>
</tr>
<tr>
<td>Primary surplus</td>
<td>13.6</td>
<td>12.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bad times</th>
<th>Industrial economies</th>
<th>Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total surplus</td>
<td>61.1</td>
<td>-2.2</td>
</tr>
<tr>
<td>Primary surplus</td>
<td>58.0</td>
<td>-4.9</td>
</tr>
</tbody>
</table>

Note: Numbers give the typical impact of a one percentage point increase in real GDP on the ratio of the surplus to GDP. A positive number for the surplus implies that it moves in a stabilizing direction. Source: Statistical analysis as described in Gavin and Perotti (1997a).

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10 The results in Table 1.5 apply to the central government. Gavin and Perotti (1997b) extend the results to the general government (which also includes local governments) and the nonfinancial public sector (which includes general government and nonfinancial public enterprises). As one might expect, they found little evidence of countercyclical fiscal policy by local governments. They also found that in Latin America public enterprises have tended to reinforce the procyclical fiscal patterns observed at the central government level. One interpretation of this is that public sector pricing, employment and other decisions have been used by governments for purposes, and under constraints, very similar to those of the central government.

11 More precisely, "bad times" are defined as years during which real GDP growth in a country falls more than one standard deviation below the average. Similar results were obtained when bad times were defined as years during which real GDP declines.

12 These are defined as periods when real GDP declines at least 4 percent (Latin America) or 1.5 percent (industrial economies).
which time a stabilizing fiscal policy would have been very valuable. However, policymakers in both countries felt obliged to respond to the crisis with major fiscal contractions that included important reductions in public spending and increases in tax rates. This was almost certainly the best response available, given the precariousness of the countries’ access to credit markets. However, if not dealt with, that precariousness may continue to generate costly and destabilizing responses to economic shocks in the future.

**Highly Procyclical Revenue and Spending**

The failure of Latin American fiscal surpluses to move in a stabilizing manner is not due to a smaller sensitivity of tax revenue to the business cycle; indeed, tax revenue is even more sensitive to economic activity in Latin America than in the OECD countries, and if spending behaved similarly, Latin American budgets would be even more stabilizing. The key difference between Latin American and industrial country fiscal outcomes lies in the cyclical behavior of public spending. In the industrial economies, total public spending is essentially uncorrelated with short-term fluctuations in output.

Transfer payments, which include spending on important income- and unemployment-sensitive programs that tend to increase during recessions, move in a countercyclical fashion and offset mildly procyclical movements in other components of public spending. In Latin America, however, all components of the budget move in a procyclical fashion, sometimes dramatically so. A one percentage point increase in real GDP is, for example, associated with an increase in real public capital spending of 1.58 percentage points and in nonwage government consumption of nearly 3 percentage points.

**Fiscal Procyclicality Reinforced by Inflation Tax**

In the industrial economies, inflation is procyclical in the sense that it tends to increase during periods of economic boom and decline in periods of recession. In Latin America, however, the opposite is observed: inflation tends to be higher during bad economic times and lower...
when the economy is buoyant. In Latin America, then, the inflation tax tends to increase when times are bad and decline when they are good, reinforcing the procyclicality of fiscal policy. Unlike in the industrial economies, inflation in Latin America also tends to be higher when the previous year’s fiscal deficit was higher. 13

These patterns suggest that inflation has acted much more like an instrument of fiscal policy in Latin America than has been the case in the industrial economies. This may, but need not be, the result of a conscious choice by policymakers to exploit inflationary finance when fiscal imbalances become very large. One scenario is that when the private sector becomes convinced that the political system will be unable to rapidly address a budgetary shortfall created by bad economic news, a loss of confidence generates a run on the domestic currency, and the resulting depreciation generates a burst of inflation. This may address the fiscal shortfall, at least temporarily and partially, because the inflationary surprise will tend to erode the real value of nonindexed spending commitments. 14

The end result is that the inflation tax reinforces the procyclicality of the budget, rising when the economy moves into recession and declining in good times, thus tending to amplify economic fluctuations.

**Cyclical Management of Fiscal Policy Varies**

Not all countries of the region display the same degree of procyclicality. If we measure the procyclicality of fiscal policy as the correlation between cyclical movements in government consumption and in real output, the Dominican Republic, Ecuador, Barbados, Bolivia, Argentina and Colombia display a relatively low degree of procyclicality, roughly comparable to that observed in Germany, Italy and Japan.

In Costa Rica, Mexico, Peru and Venezuela, on the other hand, the correlations between cyclical movements in government consumption and real output are roughly 0.8 or more, signifying a very tight relationship between economic fluctuations and government consumption.

**Close Relationship Between Volatility and Procyclicality**

Figure 1.18 suggests that fiscal procyclicality is associated with macroeconomic volatility, where volatility is measured as the standard deviation of real output growth. This statistical association is partly due to the fact that the large industrial economies are relatively stable and

FIGURE 1.17

**Procyclicality of Government Consumption, 1970-95**


FIGURE 1.18

**Volatility of Output and Procyclicality of Government Consumption, 1970-95**


13 See Gavin and Perotti (1997b) for a more detailed discussion.

14 Persson, Persson and Svensson (1996) argue that the impact of an unexpected increase in inflation on the fiscal balance is large and positive in Sweden. This need not be the case, because an increase in inflation may also have a large negative effect on fiscal revenue.
economic fluctuations, generating higher volatility. This is probably part of the story, but an equally plausible (and potentially complementary) explanation is that a highly unstable macroeconomic environment makes it difficult to manage a countercyclical fiscal policy.

**Disruptive Effects of Fiscal Volatility and Procyclicality**

The volatility and procyclicality of fiscal policy in Latin America has been costly. Not only has the "stop and go" nature of public spending almost certainly generated inefficiencies in the provision of public services, it has also contributed to macroeconomic volatility more generally. The contribution of fiscal volatility to the volatility of real output and the real exchange rate was documented in Inter-American Development Bank (1995), which also presented evidence that this macroeconomic volatility has lowered economic growth in Latin America by as much as a full percentage point per year, reduced investment, undermined educational attainment, worsened the distribution of income, and contributed to higher poverty in the region. There is also a strong link between fiscal volatility and monetary and financial instability. Inter-American Development Bank (1995) shows that fiscal volatility is associated with more unstable monetary outcomes, which undermines the domestic financial system. Gavin and Perotti (1997b) show that fiscal booms are strongly associated with the abandonment of fixed exchange rate regimes in Latin America, and that these abandonments have been highly disruptive for the economy.

**Disproportionate Effects on the Poor**

The evidence also suggests that the poor have suffered disproportionately from the economic and financial instability that has characterized, in part, by volatile and procyclical fiscal policies. As we have noted, there is evidence that economic volatility worsens the distribution of income. This is probably in part because the poor are less well equipped to cope with economic shocks. It also reflects the fact that incomes of the poor are substantially more sensitive to changes in aggregate income than are the incomes of the wealthy (Londoño and Székely, 1997).

**Why Is Latin American Fiscal Policy Procyclical?**

As we have noted, the destabilizing, procyclical nature of fiscal policy in Latin America is most pronounced in bad times, when fiscal policy is most countercyclical in the industrial economies. There is good reason to believe that this procyclicality has to do with a loss of access to noninflationary sources of finance during bad economic times. This helps explain why inflation tends to increase during bad times; if we view inflation as a fiscal resource of last resort, then sudden bursts of inflation offer support for the idea that alternative financing sources have become more scarce. It is also consistent with the evidence that Latin American governments’ recourse to IMF credit and “extraordinary” sources of international financing tends to increase during bad economic times.15

All of this suggests that the procyclical behavior of fiscal policy during bad times is the best response available to the authorities, given the somewhat precarious nature of their access to noninflationary sources of finance. This suggests, in turn, that improving the fiscal response to bad times cannot be achieved simply by deciding to relax fiscal policy. As was discussed above, this could promote a collapse of confidence in the viability of public finances and an even larger crisis. Instead, emphasis has to be placed on managing fiscal policy during the good times, ensuring that the fiscal position is sufficiently solid that the fiscal implications of an adverse shock or economic downturn will not generate fears about the viability of public finances, thus ensuring that the financing required to implement a more stabilizing, countercyclical response to the bad times will be available.

This idea that a more stabilizing response to bad times can be achieved by maintaining a more solid fiscal position during good times is supported by the evidence for Latin America. Gavin and Perotti (1997b) show that Latin American countries that enter a bad period with a strong fiscal position have tended to display a substantially lower degree of fiscal procyclicality, as measured by the response of the fiscal balance to changes in real economic activity, than have countries in the region that entered the period with large fiscal deficits.16 One interpretation of this finding is that countries that enter a period with a fiscal position strong enough to weather an adverse shock without falling into a potentially unmanageable fiscal deficit do not suffer the loss of confidence that would otherwise enforce a procyclical adjustment.

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15 See Gavin and Perotti (1997b). “Extraordinary” financing includes arrears, IMF credit and special financing operations such as the U.S. Treasury’s support for Mexico in 1995.

16 See Gavin and Perotti (1997b). A “low” fiscal deficit was defined as a deficit of less than 3 percent of GDP. Gavin and Perotti (1997a) also present evidence that the private as well as public sector of Latin America is affected by the loss of market access during bad economic times.
and are therefore able to manage a more stabilizing fiscal response to economic downturns.

The question then becomes, why has it proven so difficult to achieve the required management of fiscal policies during good times? This would require that governments save a large portion of the temporarily high revenue that they receive, thus running large fiscal surpluses when times are good. It may be much harder for Latin American governments to do this precisely because the economic booms and fiscal shocks are so large; it is very difficult to hide large fiscal surpluses from participants in the fiscal decisionmaking process. And as we discuss in more detail in Chapter 2, it may be individually rational for all participants to spend a transitory boom in fiscal revenue, even though everyone would be better off if there were some way to commit all participants to a cooperative strategy that enforced more saving of the boom income. The collective nature of decisionmaking about fiscal policy thus tends to promote an over-spending of income during economic booms, which is procyclical in itself and also sets up the economy for an even more procyclical reaction to economic downturns.

In a highly volatile economic environment, there is thus a potential vicious circle, which is related to the political distortions that are discussed in more detail below. Countries may be forced into procyclical fiscal adjustments during bad times because they lose access to financial markets. This loss of market access occurs because the very large fiscal shocks raise doubts about the political feasibility of the required adjustment. The resulting procyclical fiscal response exacerbates the problem of macroeconomic volatility. This vicious circle could be broken if the government were to find a way to commit itself to save enough during good times to ensure a viable fiscal position even after a large adverse fiscal shock. But for reasons that are discussed in more detail below, it has generally proven to be as difficult in Latin American democracies as it has in the industrial economies to maintain large fiscal surpluses during good times. The difference is that the costs of this failure are much higher in the volatile Latin American environment.

This makes the management of fiscal policy very challenging in Latin America, substantially more so than in the industrial economies. It requires much larger and more costly adjustments, and a more complex problem of cyclical management, all of which must be undertaken through a democratic decisionmaking process. The challenge is to organize management of fiscal policy so that the democratic process can respond more effectively to the special challenges that face the region.

**ELECTORAL BUDGET CYCLES**

At no time is the potential interaction between democratic politics and fiscal outcomes intuitively easier to grasp than around election time, when governments often relax fiscal policy in order to please or at least try to avoid alienating important constituencies. Of course, tax cuts or extra spending in the pre-election period will have to be covered, with interest, by tax increases or spending cuts in the post-election period, and if they are large enough they may even destabilize the economy. But the strategy may nevertheless be attractive to a government, because the potential macroeconomic costs will generally be borne, and the required fiscal correction take place, after the election, by which time they may, after all, be some other government’s problem.

The influence of elections on Latin American fiscal outcomes is, in some cases, relatively easy to discern. Figure 1.19 documents the case of Costa Rica, a country with a long history of democratic elections, and one where the electoral budget cycle is clearly visible. It can be seen that over the past 20 years almost every election year has been accompanied by a significant deterioration of fiscal balance, which is generally corrected in the years immediately following the election.

This problem has been recognized by the Costa Ricans, and is one of the reasons that they have been debating major institutional reforms that would place constraints on the ability of lawmakers to resort to deficit financing of public spending. A proposal now under discussion would limit the fiscal deficit to no more than one percent of GDP, except in extraordinary circumstances and subject to approval by a two-thirds majority of the Congress.

In this pattern, Costa Rica is far from unique. Figure 1.20 illustrates the typical evolution of Latin American budgets around the time of an election.18

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17 See Lane and Tornell (1996) for a more extended discussion of these “voracity effects.” Talvi and Végh (1997) argue that procyclical fiscal policies can in fact be optimal in highly volatile environments when fiscal surpluses generate strong pressures for wasteful public spending.

18 Figure 1.20 is based upon a statistical analysis of election years and fiscal outcomes that also controls for (i) the previous period’s fiscal balance; (ii) the growth rate of real GDP and the terms of trade; (iii) country dummy variables that control for unobserved country-specific factors; and (iv) dummy variables for each year of the sample period, which control for unobserved factors that vary over time, but are common to countries of the region. The estimated impact of the election year and the post-election years are statistically significant at the 5 percent confidence level, but the estimated impacts on revenue and expenditure are less precisely estimated.
We find that during election years, spending tends to be higher than usual and fiscal revenue lower, with the result that the deficit is typically about 1.3 percentage points larger than during nonelection years. In the year after the election, public spending goes back to normal, revenue rises, and the fiscal balance tends to be roughly 1.3 percentage points above normal, implying an apparently election-related swing in the fiscal balance of more than 2 percentage points of GDP.

If it exists at all, this fiscal response to elections is much more subtle in the industrial economies; we were unable to uncover any systematic relationship between elections and fiscal outcomes in the industrial country data. This suggests that the strategic use of fiscal policy to enhance electoral prospects of the governing party is more pervasive in Latin America than in the industrial economies.

Why might this be true? One possibility is suggested by evidence that the depth of the electoral budget cycle in Latin American countries is correlated with the volatility of the underlying macroeconomic environment. This correlation has two plausible explanations. One is that countries whose political systems have managed to constrain the fiscal response to elections have avoided the destabilizing consequences of that response, and for that reason have more stable economies. Another potentially complementary explanation is that in countries with substantial macroeconomic volatility, and therefore large shocks to the budget, it may be easier to indulge in election year fiscal expansions, which are less visible amidst the noise created by the economic environment, and therefore less exposed to the harsh light of scrutiny by the public and opposition politicians.

CONCLUSIONS

During recent years, and in many respects, Latin America’s fiscal outcomes have been exemplary. There are more countries in Latin America that satisfy the Maastricht Treaty criteria for entry into the European monetary system than in Europe. But our examination of fiscal outcomes in Latin America suggests that there is room for improvement. The fiscal consolidation of the 1990s must first be defended against political pressures that have arisen in the past, and could arise again. Latin American fiscal outcomes have displayed an important element of procyclicality, tending to amplify rather than mitigate economic fluctuations. Recent experience suggests that this problem remains significant, despite the fiscal consolidation of the 1990s. Finally, we uncovered evidence of a tendency for fiscal policy to respond to elections, which suggests that there may be benefits in finding ways to prevent short-term political pressures from exercising undue influence over fiscal policymaking. The chapter that follows builds upon these stylized facts to learn from the Latin American experience what institutional adaptations have been effective in promoting more effective fiscal policy in the region.

19 Volatility was measured as the standard deviation of real GDP growth, and the depth of the electoral budget cycle was measured as the estimated impact on the fiscal surplus of election years, after controlling for the previous period’s fiscal balance, the growth rate of real GDP and the terms of trade, country dummy variables that control for unobserved country-specific factors, and dummy variables for each year of the sample period.
REFERENCES


This chapter looks at the way in which the democratic decisionmaking process is organized in the national fiscal institutions of Latin America. The previous chapter established that fiscal problems remain despite tremendous strides in Latin America in terms of deepening democracy and strengthening public finances. These problems include a deficit bias, high volatility in the fiscal accounts, procyclical responses to shocks, and electoral budget cycles. The problems are interrelated and may reinforce each other, and in this chapter we argue that they are intimately related to political distortions in fiscal decisionmaking.

Deficit bias lies in the fact that fiscal policy is decided collectively, as in the chicken and lobster problem, so that participants do not recognize the full social cost of the programs they support. This commons problem also affects the dynamic response to shocks: fiscal surpluses dissipate as soon as they appear because everyone fears that their decision to save them for times of shortages only increases another group’s chances to grab them today. Response to shocks may be delayed as one group tries to shift the burden of adjustment onto others. The eventual response to a negative shock may have to be procyclical because the political system may not be able to find the necessary financing required for an anticyclical policy, since it cannot credibly commit to generate the necessary surpluses in the future to pay off the debt.

In spite of these remaining problems, this is an optimistic chapter. It presents recent research findings that show that many countries in the region, because of their institutional choices, have been able to limit the extent of these problems while at the same time preserving democratic and participatory decisionmaking. It points to an agenda of reforms that is grounded to a large extent in the successes of the region, but also looks at what may lie ahead.

The section that follows provides a conceptual framework designed to understand the challenges that democratic decisionmaking in fiscal matters must confront. We then move on to study two institutional arrangements with important implications for fiscal decisionmaking: electoral systems and budget institutions. Here we document and discuss how the region is organized. An evaluation then follows of the impact of institutional choices on fiscal performance. We find that there are arrangements that limit the deficit bias problem, but procyclicality and electoral budget cycles remain unsolved. The chapter ends with a discussion of institutional arrangements that may improve democratic decisionmaking in all these dimensions. We concentrate on institutional design because in a setting with many actors, such as a democracy, policy recommendations cannot be based only on a set of exhortations in favor of principles of sound management, which most people already agree
on but are unable to carry out, given the political dynamics they face. Instead, we focus on a set of rules and institutions which, by changing the nature of the political game, can actually deliver on those principles.

**FOUR PROBLEMS A DEMOCRATIC FISCAL PROCESS MUST SOLVE**

The ability to organize large societies with millions of citizens participating in the political process, and to design mechanisms that deliver good government and sound fiscal performance, are among the great achievements of humanity. Analysts can only be mesmerized by the complexity of the problems democratic institutions must solve. These problems can be split into four major areas: aggregation of preferences, coordination, credibility and agency.

**Aggregation**

How can social choices be made out of individual preferences? Ever since Arrow’s impossibility theorem showed the complexities of this process, much economic theory has been developed to understand its implications. In representative democracies, people vote for others who are meant to express their preferences. The way their individual votes are added up to define a number of representatives, and the way the vote of the representatives is added up to define a decision, is one key element of this process.

For the same electoral results, some rules of aggregation, such as first-past-the-post systems, may give rise to large majorities, while others, such as systems of proportional representation, may lead to many small parties that need to govern through coalitions.

Another dimension of this problem is the degree of political decentralization of public decisions. For the same electoral results, a system in which road investments are decided on by locally elected governments would lead to an allocation of resources very different from a system in which that decision is made in the federal congress. In fact, as we shall see in Chapter 3, one of the driving forces behind the current move towards decentralization is precisely the fact that it allows a closer match between local preferences and public decisions.

Moreover, the rules of aggregation themselves may affect the number of parties that coexist. Proportional representation and two-round election systems tend to generate political systems with a larger number of parties, while first-past-the-post systems lead to fewer parties. Hence, the way votes are added up affects the political structure of the country and, in particular, the likelihood of minority or coalition governments.

Hence, some systems lead to coalition governments that are forced to find common ground in order to satisfy the preferences of a larger electorate; other systems might generate a more decisive majority, but at the cost of incorporating the preference of fewer voters.

**Coordination**

Once political representatives are chosen and they appoint the relevant government officials, this group of politicians and bureaucrats must now deal with each other according to a set of rules and procedures. This interaction may lead to distortions that arise out of the interconnected nature of their decisions. We saw already the commons problem exemplified in the chicken and lobster story. Government revenue can be thought of as a common resource that is perceived as underpriced and hence is subject to overutilization. If participants have concentrated interests, they will ask for spending on the programs they like, with the cost borne by all taxpayers. If many groups do this, there will be a tendency towards excessive spending. This same logic may lead to overindebtedness, since each group may prefer to postpone the burden of taxation through deficits, given that they will only pay for a small fraction of the additional debt.

Another related issue is the dynamic commons problem. Suppose that a country has just suffered a positive and temporary shock due to an improvement in the terms of trade. Most would agree to the proposition that the resulting fiscal windfall should be saved to protect spending programs in less favorable times. However, if some groups fear that others will use their acquiescence to grab the resources, then they will have incentives to do the same. The lack of a coordination mechanism to ensure that resources will be carried over to another day leads to their immediate dissipation.

A third issue is that of delayed adjustment. When heterogeneous collective bodies must decide on difficult but necessary measures, there may be a tendency to delay action in order to wait and see if some other group is willing to bear the burden of adjustment. As this process goes on, economic costs often mount. Delayed adjust-
Credibility

Economic decisions involve a calculation about the future. In that calculation, the future course of economic policy becomes an important element, since it can significantly affect the absolute and relative attractiveness of different projects. However, in a democracy the future course of economic policy will, to a large extent, be decided by future governments. Current governments might want to acquire certain commitments about future policy choices so as to assure current investors, but these commitments may be reversed by future governments. The credibility of current explicit and implicit commitments will then become an important determinant of investment. This problem is especially severe if there is a time-inconsistency problem, i.e., a situation in which it is optimal to promise something now, but later it becomes optimal to renege on it. We argued in Chapter 1 that lack of credibility may be behind the need for governments to take on a larger investment role in infrastructure and natural resources.

This logic is particularly applicable to government debt. In order to issue bonds, governments have incentives to promise that they will make good on their commitment to service these obligations. But once issued, there are incentives to repudiate those obligations either explicitly, through a payment moratorium, or implicitly, through surprise devaluation and inflation. Knowing this, investors will demand a large risk premium on these instruments, making it less attractive to issue them and more enticing to default on them. The market for debt may disappear altogether.

Latin America has had relatively precarious access to capital, as we already saw in Chapter 1. This may arise from insufficient credibility. For example, a government may wish to borrow in bad times and repay the debt later in good times in order to smooth economic fluctuations and tax rates. However, if the government’s commitment to pay later is in doubt, the markets will not be willing to finance the deficit and the government may be forced to cut spending and raise taxes during recessions, hence behaving procyclically, as described in Chapter 1.

One contributing factor in the ability to commit is the degree of polarization in society. If economic policy has broad-based support, then it will be more credible. Credibility may also be affected by the likelihood that the government will change. Electoral systems that lead to coalition governments may be expected to change more frequently and hence lead to greater commitment problems.

Agency

In a representative democracy, the public at large delegates choices to elected officials, who then recruit a set of appointees. Both politicians and bureaucrats are meant to act with the best interest of the electors in mind. But they obviously might have incentives to put their own interests ahead. This is the essence of the agency problem. This problem is most acute when agents have so much discretion that they are free to choose among a wider set of actions, and when these choices are not easy to observe.

Some institutional arrangements are better than others to cope with this problem. Disclosure requirements may reduce the information asymmetry that agents exploit in order to hide their actions. A free press and a credible judicial system may impose sufficient dissuasive elements to keep agents honest. The ability to reward and punish politicians, an aspect affected by the structure of government and the competitive nature of the political process, may constrain agents. One common justification for decentralization is that it allows electors to discipline top local officials who perform functions that would be carried out by low-level bureaucrats in a centralized system.

One form the agency problem might take affects the electoral budget cycle. An unchecked executive may exploit the inability of the public to distinguish between healthy economic expansion and an artificial and unsustainable fiscal impulse in order to cause an election year boom that may require future cutbacks once the election is over.

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3 The literature on credibility started with Kydland and Prescott (1977) and Calvo (1978).
4 See Bulow and Rogoff (1989) and Calvo and Guidotti (1993).
5 Talvi and Végh (1996) argue that if governments are unable to run large surpluses they will be unable to choose a stabilizing fiscal policy. Since Latin America has larger fluctuations, the required surpluses are larger and more difficult to achieve. Saint-Paul (1994) argues that in a context of asymmetric information about the government’s intentions, the authorities may choose a very procyclical fiscal reaction in order to signal their commitment to sound finances. Moreover, he points out that this result is most likely to be obtained in volatile and highly indebted countries.
6 For an excellent nontechnical review of agency problems, see Arrow (1985). A more technical treatment can be found in Hart and Holmstrom (1987).
ELECTORAL SYSTEMS

Aggregation, coordination, credibility and agency are four problems at the core of democratic decisionmaking. The following sections focus on two institutions that are at the core of fiscal policy: electoral systems and budget institutions. The specific design of these institutions implies difficult tradeoffs between the four different problems. More representative electoral systems may make coordination and credibility more difficult to achieve. More hierarchical decisionmaking may solve the commons problem, but the hierarchical authority may generate greater agency problems. To improve credibility, governments may need to tie their hands in ways that will sacrifice precious flexibility needed to adjust to shocks and unforeseen new realities. This section discusses the main dimensions of electoral systems and analyzes how they might have impacted fiscal performance. We do the same for budget institutions in the subsequent section.

Electoral systems are the set of rules under which members of parliament and the chief executive are elected in a representative democracy. They are instrumental in shaping such political outcomes as the degree of fragmentation of the government (whether majority, minority or coalition), the number of parties represented in the legislature, and the ability of minorities to obtain political representation.

A critical dimension of an electoral system is the electoral formula. There are three main types of electoral formulas: first-past-the-post or plurality systems (PL), where only one representative is elected per district and all seats go to the winner; proportional representation systems (PR), where the seats are distributed in proportion to the votes obtained according to some allocation rule; and mixed systems that combine features of both. This polar representation is a bit fuzzier in practice. Some PR systems have few seats to be allocated per district and hence cannot achieve much proportionality in the representation. District magnitude (DM) simply measures the average number of representatives elected per district. Plurality systems can then be redefined as those that have a district magnitude of one, while systems become more proportional as the DM increases. Hence, district magnitude is a more continuous representation of the electoral systems contained between the two polar cases of pure PL or PR.

As we shall see, proportional representation systems (i.e., systems with large district magnitude), tend to encourage multiparty political systems, political representation of minorities and coalition governments. By contrast, first-past-the-post arrangements usually produce two-party systems and majority governments, and make it difficult for minorities to be represented in the legislature.

Electoral Systems in Latin America

Latin America has a large variety of electoral systems. However, proportional representation is by far the most common system: 15 of the 26 countries have such systems. Six (the Bahamas, Barbados, Belize, Haiti, Jamaica and Trinidad and Tobago) have first-past-the-post or plurality systems, and five (Chile, Mexico, Panama, Peru and Venezuela) have mixed systems (see Table 2.1). For example, in Mexico and Venezuela some candidates for the lower house are elected under the PL system, while others are elected using proportional representation. In Panama, legislators are elected by PL or PR depending on the electoral circuit where they run. In Chile and Peru, candidates are presented in lists but voters can cast a preferential vote for one of the candidates, and the candidates with the largest number of preferential votes are selected within the list.

Seventeen countries have two-tier or bicameral systems, while nine have only one-tier or unicameral systems. In all cases except Panama, unicameral systems are observed in countries with a PR system. All PL systems are bicameral. Two-tier systems can achieve a balance between different aggregation criteria. Some allow balance between demography and geography, while others combine the advantages of a close voter-representative contact characteristic of smaller districts, with the advantages of greater proportionality and minority representation offered by larger districts.7

District size varies considerably across countries (see Figure 2.1). Obviously, PL systems have small district sizes. Among PR or mixed systems, district size varies from 2 in Chile and 3.2 in Ecuador to 10.3, 14.4, 16.6, and 19 in Argentina, Bolivia, Mexico and Brazil, respectively. The variety in district size is even greater in the upper house, ranging from 2 in Chile to 102 in Colombia.

Another important dimension of the electoral systems has to do with the way in which the executive is chosen. In presidential democracies the presidency is voted on directly and has significant independent authority. By contrast, in parliamentary democracies the prime minister is accountable to the legislature. The manner in

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7 See Lijphart (1994).
Table 2.1. Electoral Institutions and Political Outcomes

<table>
<thead>
<tr>
<th>Country</th>
<th>Legislative electoral formulas</th>
<th>Number of legislative chambers</th>
<th>Lower/ single house district magnitude</th>
<th>Higher house district magnitude</th>
<th>Average district magnitude</th>
<th>Presidential vs. parliamentary systems</th>
<th>Number of rounds</th>
<th>Absolute number of parties in lower house</th>
<th>Effective number of parties in lower house</th>
<th>% of legislative seats held by the head of government's party in the lower/ single house</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>PR</td>
<td>2</td>
<td>10.3</td>
<td>2.9</td>
<td>8.7</td>
<td>P</td>
<td>2</td>
<td>16</td>
<td>2.82</td>
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<tr>
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<td>PL</td>
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<td>1.0</td>
<td>na</td>
<td>1.0</td>
<td>Pa</td>
<td>na</td>
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<td>1.34</td>
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<td>Pa</td>
<td>na</td>
<td>3</td>
<td>2.00</td>
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<td>14.4</td>
<td>3.0</td>
<td>12.5</td>
<td>P</td>
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<td>3</td>
<td>3.71</td>
<td>0.40</td>
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<td>19.0</td>
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<td>P</td>
<td>2</td>
<td>8</td>
<td>8.16</td>
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<td>2.0</td>
<td>2.0</td>
<td>P</td>
<td>2</td>
<td>8</td>
<td>4.95</td>
<td>0.58</td>
</tr>
<tr>
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<td>PR</td>
<td>2</td>
<td>5.0</td>
<td>102.0</td>
<td>42.1</td>
<td>P</td>
<td>2</td>
<td>2</td>
<td>2.24</td>
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<tr>
<td>Costa Rica</td>
<td>PR</td>
<td>1</td>
<td>8.1</td>
<td>na</td>
<td>8.1</td>
<td>P</td>
<td>2</td>
<td>5</td>
<td>2.30</td>
<td>0.49</td>
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<tr>
<td>Dom. Rep.</td>
<td>PL</td>
<td>2</td>
<td>4.0</td>
<td>1.0</td>
<td>3.4</td>
<td>P</td>
<td>na</td>
<td>3</td>
<td>2.43</td>
<td>0.48</td>
</tr>
<tr>
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<td>3.2</td>
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<td>3.2</td>
<td>P</td>
<td>2</td>
<td>13</td>
<td>5.21</td>
<td>0.23</td>
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<td>El Salvador</td>
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<td>1</td>
<td>8.2</td>
<td>na</td>
<td>8.2</td>
<td>P</td>
<td>2</td>
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<td>4.03</td>
<td>0.33</td>
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<tr>
<td>Guatemala</td>
<td>PR</td>
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<td>6.9</td>
<td>na</td>
<td>6.9</td>
<td>P</td>
<td>2</td>
<td>7</td>
<td>2.72</td>
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<td>43.4</td>
<td>na</td>
<td>43.4</td>
<td>P</td>
<td>1</td>
<td>4</td>
<td>2.14</td>
<td>0.54</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>P</td>
<td>2</td>
<td>8</td>
<td>1.46</td>
<td>0.82</td>
</tr>
<tr>
<td>Honduras</td>
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<td>P</td>
<td>1</td>
<td>1</td>
<td>2.03</td>
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<td>P</td>
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<td>P</td>
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<td>4.06</td>
<td>0.46</td>
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<td>Paraguay</td>
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<td>4.7</td>
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<td>19.2</td>
<td>P</td>
<td>1</td>
<td>3</td>
<td>2.38</td>
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</tr>
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<td>4.8</td>
<td>4.0</td>
<td>4.0</td>
<td>P</td>
<td>2</td>
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<tr>
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<td>5.1</td>
<td>Pa</td>
<td>na</td>
<td>8</td>
<td>5.36</td>
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</tr>
<tr>
<td>Trin. + Tob.</td>
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<td>1.0</td>
<td>Pa</td>
<td>na</td>
<td>3</td>
<td>2.23</td>
<td>0.53</td>
</tr>
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<td>11.4</td>
<td>P</td>
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<td>2.0</td>
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<td>P</td>
<td>1</td>
<td>5</td>
<td>4.73</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Notes: District magnitude is the average number of representatives elected per district. Average district magnitude is the weighted average (weighted by the number of representatives in each house) of the district magnitude of the lower and upper house. The number of effective parties, Ns, is defined as Ns = 1 / \sum_i s_i, where s_i is the proportion of representatives party i has in the lower house.

1 Following the constitutional reform of 1993 in Peru, there is only one electoral district and the congress has one single house. Only one election has been held under the new rules.

FIGURE 2.1

District Magnitude

a. Lower House

b. Upper House

(Countries with two-tier systems)

Note: Guyana has been excluded from the graph for presentational purposes. Its district magnitude is 43.4.
which the chief executive is chosen may have ambiguous consequences on the fragmentation of the political system. On the one hand, since large parties have a better chance of winning the presidency and this advantage is likely to carry over to legislative elections, presidential systems will likely have a smaller effective number of parties than nonpresidential systems of government, other things being equal. On the other hand, an independently elected chief executive might undermine party discipline: when the control of the presidency does not depend on parliamentary majorities, parties can afford greater internal dissent. 8

In Europe, most countries have parliamentary democracies. The opposite is true in Latin America, where 20 countries are presidential democracies and only six parliamentary. All PI systems are parliamentary democracies except Haiti, and all PR and mixed systems are presidential democracies, except Suriname.

Electoral Systems, Political Outcomes and Fiscal Performance

From the perspective of fiscal policy, why should we care about electoral systems? At first glance, the connection between electoral systems and fiscal performance appears remote. But this remoteness is only apparent. Electoral systems help shape important aspects of the political landscape, such as its degree of fragmentation, expressed in the number of parties represented in the legislature, and therefore the likelihood that the executive enjoys a majority in congress or has to form coalitions. These political characteristics may in turn affect fiscal performance.

How Do Electoral Institutions Affect Political Outcomes?

Proportional representation systems with large district magnitude allow a more exact mapping between the votes obtained by a party and the representation that party wins in the legislature. Consider an election in which the three main parties get 45, 40 and 10 percent, respectively. A first-past-the-post system may create a very large majority. In fact, if the vote is homogeneously distributed throughout the country, the first party would win all congressional races and seats. A system of proportional representation that elects only a few representatives per district (for example, two) would only allow the first two parties to obtain representation in the legislature, precluding the minority party with 10 percent of the vote from obtaining representation. By contrast, in a system of proportional representation where the number of representatives elected per district is large (for example, 100), the smaller party would obtain 10 seats in the legislature. In fact, the two smaller parties would even be able to form a coalition and control the parliament.

Proportional representation systems therefore allow a better representation for minorities to express their views through the political system. However, the inclusiveness of the PR system comes at a cost: the same electoral rules that allow minorities to be represented also create incentives for the system to produce a large number of parties. Systems with a high degree of proportionality, i.e., systems with large district magnitudes, tend to produce political structures with a larger number of parties than systems with a low degree of proportionality, such as first-past-the-post or plurality systems.

Figure 2.2 illustrates the relationship between district magnitude, which measures the average number of representatives elected per district for 26 Latin American and 15 European countries, and the number of effective parties that are represented in the legislature. The difference between the absolute number of parties in the legislature and the effective number is that the latter weights each party by its share of the vote in the legislature. For example, if there are two parties represented in the legislature, one with 90 percent of the seats and the other with 10 percent, the effective number of parties will be 1.2 rather than two. Only when the parties have an equal share of the seats in the legislature will the absolute and effective number of parties be the same.

Figure 2.2 shows that the relationship of district magnitude to the effective number of parties is very strong in both Latin America and Europe. In fact, the effect appears to be even stronger within Latin America. This is an important result because it signals that electoral systems, as aggregation rules, are bound to influence the nature of the coordination, credibility and agency problems that the fiscal system will have to resolve by affecting the number of relevant actors.

For example, electoral systems, by affecting the number of parties in the system, influence the likelihood of having a majority, a coalition or a minority government. Figure 2.3 shows that in Latin America the percentage of the seats that the executive enjoys in the legislature is very closely connected to the number of effective parties represented in parliament: the larger the number, the more

8 See Rogowski (1987).
likely it is that the government will not enjoy a majority and will therefore either have to form a coalition or govern with weak support in congress.

The evidence for Latin America and the Caribbean indicates that countries with low district magnitude, such as the English-speaking PL systems, have a low effective number of parties and, in general, majority governments. Among the rest, those with larger district size tend to have a larger number of effective parties and governments that have less than 50 percent of the seats in the lower house.

Another interesting dimension connecting electoral institutions and political outcomes is the election of the executive in presidential democracies, i.e., whether there is only one round or two rounds of voting to elect the president depending on whether a candidate wins the absolute majority in the first round. This process, known as balloting, encourages political factions to split into different parties in the first round, assuming that they may form electoral coalitions for the second round. Through this mechanism, the effective number of parties is likely to be larger. The 20 presidential democracies in Latin America are equally split between one and two-round voting. The respective absolute and effective number of parties is on average 10.5 and 3.7 in two-round systems, and seven and three in one-round systems, providing some evidence for the presence of this effect on the region (Table 2.1).

Electoral Systems and Fiscal Performance: Theoretical Considerations

The fact that district magnitude affects the effective number of parties, and the additional result that this latter variable influences the support that the executive has in parliament, are important in pointing out some of the channels through which electoral systems may affect fiscal behavior.

These results imply that other things being equal, PL or low DM systems are likely to be more decisive and stable because they will generate fewer parties and larger representation to the winning side. To the extent that these arrangements generate two-party systems, there will be competition to grab the political center, and hence parties will be less ideologically polarized. However, these three characteristics are at the cost of less inclusion into the political system. By contrast, high DM systems are more likely to suffer from gridlock, because with a larger number of parties it is harder to ensure control of congress. Furthermore, coalition governments tend to be less stable because, after all, they are formed by competing parties. Finally, the increased number of parties makes the center a less attractive political strategy and hence encourages wider ideological distances between the likely winners of the election. However, these political difficulties are a reflection of the fact that the system is trying to accommodate a wider diversity of preferences.

A large body of economic research has studied how fragmented political systems (e.g., divided governments, weak coalitions, polarization) influence fiscal performance. Although not unanimous, most of the evidence suggests that fragmentation tends to undermine fiscal discipline and accentuate the procyclicality of fiscal policy (Box 2.1). We can readily identify some of the potential channels through which this effect may operate. More constituencies may aggravate the commons problem.
Coalition members who expect to share power for shorter periods of time may not have incentives to take adequate account of the future, and hence may limit support for policies where the costs have to be paid immediately and the benefits deferred. Fiscal adjustment and the saving of booms are two examples of such policies. They may also cause delayed adjustment, because they expect other members to pay for the cost of those adjustments. Hence, coordination is likely to be a more challenging problem for the political system to deal with.

Political fragmentation may also affect fiscal performance through a credibility channel. More polarized political systems represent a larger risk of major policy changes, making current government commitments less credible. Weak governments may have less ability to commit to any policy strategy because they are less likely to be able to impose it or maintain it over time.

In summary, from the perspective of fiscal policy, electoral systems represent a tradeoff between the four major problems discussed above: aggregation, coordination, credibility and agency. Proportional representation systems with large district size represent a choice of a more inclusive aggregation system. However, by encouraging many parties and the formation of coalition governments, PR systems make coordination problems more difficult to solve, since more agents with diverse interests are involved in the fiscal decisionmaking process. To the extent that coalition governments are less stable—since coalitions often break and have to be formed again, and in parliamentary systems it often means a call for new elections—proportional representation systems will also reduce the ability of the current government to credibly commit to future policies, since the likelihood of a change in government is larger.

We have no priors as to the direction to which the degree of proportionality may affect agency problems. On the one hand, it is argued that PR systems with high DM may improve agency problems by giving representatives greater autonomy from local interests and therefore making the system more immune to “pork barrel” politics. On the other, these systems make agency problems worse by loosening the direct control the constituents have on their representatives.

Do Electoral Systems Matter for Fiscal Performance?

In Chapter 1 we studied some characteristics of Latin American fiscal systems, including size, deficits, debts, procyclicality and electoral budget cycles. How do we expect electoral systems to affect these performance dimensions?

Since systems with higher district magnitudes are more inclusive and can be expected to represent a broader spectrum of the electorate, it may be argued that they
will lead to a larger sized government than low DM systems, since voters will entrust governments that represent them better with more responsibilities. On the other hand, since coordination and credibility problems are more difficult to handle when the degree of proportionality and the number of parties is large, PR systems with large DM can be expected to deliver less fiscal discipline (larger deficits and debt) and a less efficient and prompt response to shocks. We have no strong priors for the impact of the electoral system on the intensity of the electoral budget cycle.

Table 2.2 presents the evidence. We split the sample of countries into three uneven groups, those with high, medium and low DM, and characterize average performance within these three groups with respect to the different measures of aggregate fiscal performance: government size, fiscal deficits and debt, procyclicality, and the intensity of the electoral budget cycle. The ordering matches very closely our expectations: countries with a high degree of proportionality (high DM) have larger government size, deficits and debt, and are more procyclical than countries with a low district magnitude. The intensity of the electoral budget cycle does not show a clear pattern.

Figure 2.4 presents the results of the formal statistical analysis. The formal results confirm the conclusions derived from Table 2.2. Even when accounting for other determinants, electoral institutions—as characterized by the degree of proportionality of the electoral system—are significant in explaining cross-country differences in fiscal performance. Countries with large DM tend to have larger governments, higher deficits and debt and a more procyclical response to the business cycle. We found no statistical evidence that electoral budget cycles are more pervasive in high DM systems than in low DM systems.10

The estimated statistical relationship indicates that the impact of electoral institutions on fiscal performance is potentially large in economic terms. A country with a district magnitude of 10 is expected to have government spending 3.5 to 5 percentage points of GDP above a country with a DM of one (a PL system). Similarly, a PR system with a DM of 10 is expected to have a budget surplus nearly 2 percent of GDP below, a debt-to-GDP ratio 30 percentage points above, and a degree of procyclicality 18 percentage points higher than an electoral system with a DM of one.

However, as we shall see in the next section, appropriate budget institutions, while unable to address other problems, can neutralize the effect of electoral systems on debts and deficits.

### Table 2.2. Electoral Institutions and Fiscal Performance

<table>
<thead>
<tr>
<th>Fiscal performance</th>
<th>District magnitude</th>
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</thead>
<tbody>
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<td></td>
<td>High</td>
</tr>
<tr>
<td>Budget surplus</td>
<td></td>
</tr>
<tr>
<td>Primary surplus</td>
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</tr>
<tr>
<td>Total surplus</td>
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</tr>
<tr>
<td>Debt</td>
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</tr>
<tr>
<td>Percent of GDP</td>
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</tr>
<tr>
<td>Percent of government revenues</td>
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<tr>
<td>Size</td>
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<tr>
<td>Total government expenditures</td>
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<td>Government expenditures (excl. social security and interest payments)</td>
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<tr>
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<tr>
<td>Procyclicality</td>
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<tr>
<td>Electoral budget cycles</td>
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</tr>
<tr>
<td>Central government surplus (Avg. of electoral year minus avg. of post-electoral year)</td>
<td>-1.80</td>
</tr>
</tbody>
</table>

Notes: The procyclicality of government consumption is measured by the correlation coefficient between the cyclical component of government consumption and the cyclical component of output. An analogous calculation is performed for the inflation tax rate.

### BUDGET INSTITUTIONS

Budget institutions are the set of rules and procedures by which budgets are drafted in the executive branch, modified and approved by congress and then carried out. They must facilitate identification of social preferences in terms of spending programs and acceptable taxes; allocate resources efficiently between expenditures, taking full account of the opportunity cost of taxes; avoid shifting the tax burden inefficiently or unfairly into the future; allow...

---

9 The regression results corresponding to the figures appear in Appendix A.

10 In this section we did not include budget institutions as a determinant of fiscal performance. This will be done in the following section. Their inclusion changes the results on debt and deficit in important ways.
FIGURE 2.4
Electoral Institutions and Fiscal Performance

a. Government Expenditures
(Percent of GDP)

b. Budget Surplus
(Percent of GDP)

c. Government Debt
(Percent of revenues)

d. Procyclicality of Government Consumption
(Correlation with output)

an adequate response to shocks so as not to cause costly cyclical fluctuations; and maintain credibility and access to capital markets.

There are three dimensions in which the discussion of budget institutions can be organized: i) rules that impose constraints on the deficit; ii) procedural rules that govern the preparation of the budget in the executive branch, its approval in congress, and its execution; and iii) rules that affect the transparency of the process.

Constraints on the Deficit

Theoretical Considerations and International Experience

The first set of rules impose numerical constraints on the deficit, the best known example being balanced budget rules. Evidence from the 50 states of the U.S. suggests that constitutional constraints have significant effects on the size of deficits, as they can reduce the effects of politically induced biases toward deficits and spending.\(^{11}\) However, balanced budget rules may be too rigid and may force a procyclical reaction to shocks and recessions.\(^{12}\) In a volatile environment, balanced budget rules may be inadequate because they are insufficiently flexible. The rule would not force governments to save during boom years, but it would prevent them from borrowing in bad years. Hence it would impose a procyclical fiscal policy, thus aggravating cyclical management. In addition, balanced budget rules may be so restrictive that they generate strong incentives to circumvent them by

\(^{11}\) See Eichengreen (1992).

\(^{12}\) Bayoumi and Eichengreen (1994) show that the procyclical nature of fiscal behavior in the 50 states of the U.S. is related to the presence of balanced budget rules.
means of creative accounting, which not only reduces their effectiveness, but also renders the budgetary process less transparent.\(^\text{13}\)

Rather than a balanced budget, fiscal constraints could require that deficits (or debt) be below a certain threshold. This is the kind of numerical rule with which countries in the European Union have to comply under the Maastricht Treaty. Countries are required to reduce deficits below 3 percent of GDP, and debt below 50 percent of GDP. Other more flexible constraints include the requirement that the deficit be consistent with a previously approved macroeconomic program.

It is important to understand the logic behind constitutional restrictions on debts and deficits. Constitutions have among other functions the role of limiting the power of a transitory majority. For example, civil, political and economic rights are considered inalienable and hence defined in a constitution, thus restricting the ability of the majority to decide on them. Deficits constitute postponed taxation. Constraining the deficit may be interpreted as a restriction on the power of the current congressional majority to bequeath a large debt onto other social groups who at present are in the minority. Hence, a constitutional rule restricts the choices that can be arrived at through simple majority voting.

Latin American economies are in great need of credibility enhancing arrangements, better provided by strict rules such as balanced budget provisions, but are also in need of flexibility, given their high volatility. The challenge is to design institutions that can improve on the tradeoff between credibility and flexibility.

### Latin American Experience

No Latin American country has balanced budget rules or other types of numerical fiscal constraints such as the ones in Maastricht. In those cases where constitutions or laws specify that expenditures cannot exceed the estimation of resources, this estimation is understood to include borrowing. In Costa Rica, the congress is currently considering adoption of a numerical fiscal rule as part of a wider reform of the budgetary process, in part geared toward controlling what was considered to be a serious political budget cycle.\(^\text{14}\) The proposal requires public sector deficits to be less than 1 percent of GDP and contemplates some exceptions in extraordinary situations that would take a two-thirds majority in congress to approve.

An alternative to a balanced budget rule that may achieve some of its benefits without many of the costs associated with excessive rigidity is a macroeconomic program requirement. In some countries in the region, the government is required to prepare a budget consistent with a previously approved macroeconomic program, often agreed upon with the central bank. These programs typically include targets for macroeconomic objectives such as the inflation rate, external balance, and the growth rate, as well as targets for policy instruments such as fiscal spending and the deficit, monetary expansion, and exchange rate policy. A macroeconomic program requirement may add some discipline to the budget process if it clearly identifies limits to the size of the budget and its balance compatible with other economic goals. The macro program can thus act as a formal restraint on the size of the deficit, while at the same time allowing for more flexibility. However, its effect on outcomes can be undermined if, during the approval process, congress has too much leeway to modify the budget presented by the executive. In about half of the countries in our survey, the macro program plays a sig-

\(^{13}\) This argument has been made by Alesina and Perotti (1995b).

\(^{14}\) See Rodríguez (1995).
significant role as a prerequisite for the submission of the budget to congress.\textsuperscript{15}

Another way to introduce constraints on the size of the deficit is to change the sequencing of decisions in such a way as to make the legislature agree first on a binding ceiling for spending and borrowing before beginning discussions on the allocation of expenditures. The benefit of this sequencing is that when negotiations on allocation take place, one project becomes the opportunity cost of another, rather than projects being financed at the margin by more debt.\textsuperscript{16} The six countries in the region where congress sets a ceiling on government borrowing are Brazil, Colombia, Mexico, Peru, Trinidad and Tobago and Uruguay (for the case of government bonds). At the other end of the spectrum, in El Salvador, Guatemala and Honduras, the government is not subject to any borrowing constraints.\textsuperscript{17}

Some authors have recently argued in favor of assigning the responsibility of setting the government’s borrowing ceiling to an independent institution, which would have the same autonomy for setting these debt ceilings as an independent central bank has for defining monetary policy. Von Hagen and Harden (1995) suggested this arrangement for European countries, while Eichen-green, Hausmann and Von Hagen (1996) have made a proposal along similar lines, but specially tailored to the characteristics of Latin America. Borrowing ceilings could reflect the current state of the economy and would thus be more flexible than the balanced budget rule, while retaining much of the credibility of a rules-based arrangement, given the fact that the institution is mandated to preserve the stability of public finances and is sheltered from short-term political considerations through its statutory autonomy. None of the countries in the region have adopted this type of arrangement to date.

### Procedural Rules

#### Theoretical Considerations

As in the chicken and lobster problem, uncoordinated decisions may lead to excessive spending over the amounts desired by every participant. It is an inefficient equilibrium. One way out is to give a player some primary or agenda setting powers on the budget. In our example, having someone decide on the maximum cost of a plate may constrain individual decisions so that the group ends up choosing chicken.

Procedural rules can be distinguished in terms of whether they provide a more “collegial” or a more “hierarchical” decisionmaking process. Collegial rules give many players equal power, while hierarchical rules give some players advantage over others. In a cabinet setting, there are many spending ministers and a single finance minister. The former are judged by the quantity and quality of services they provide, not by the tax burden they impose. Collegial rules that give equal vote to all ministers on budgetary matters are bound to lead to higher spending and deficits than rules that give primacy to the finance ministry. A similar dynamic can take place between the executive branch and congress. Single district deputies may push for programs that benefit their constituency, while the executive branch might internalize the overall constraints.

These rules are clearly codified in most countries. Can the executive unilaterally determine the maximum overall size of spending and deficits? Can congress or parliament be restricted only to cut and not to increase spending or deficits over the amount chosen by the executive? Can the executive unilaterally determine the maximum overall size of spending and deficits? Can congress or parliament be restricted only to cut and not to increase spending or deficits over the amount chosen by the executive?
executive? Can there be a decision on these magnitudes before deciding on the allocation, so that the opportunity cost of an additional project becomes another project and not just more spending and more deficits? These types of arrangements might contain the commons problem.

However, these arrangements may not contain the dynamic commons problem in the sense that neither hierarchical nor collegial structures have the right incentives to save current windfalls in order to protect a future in which the current executive or parliament may still not be in power. Moreover, hierarchical structures may aggravate the agency problem in the sense that they give an agent greater discretion to carry out his private agenda. Hence, strong hierarchical institutions may not solve the electoral budget cycle because the executive may have a vested interest in using the budget for electoral purposes.

Procedural Rules in Latin America

We first focus on whether the region’s rules are hierarchical or collegial during the budget preparation stage, which typically involves the finance minister and the spending ministers. Obviously, institutions will be more hierarchical when more power is concentrated in the figure of the finance minister. At this stage, the single most important issue is whether the finance minister has, both formally and in practice, more authority than the rest of the ministers with respect to the budget discussions. This is the case in the great majority of the countries in the region, with the exception of Brazil and the Dominican Republic. Peru was another exception until 1990, when several important aspects of budget institutions were reformed. In most countries, the greater authority of the finance minister is seen in his power to veto expenditures proposed by the other members of the cabinet.

After the budget is drafted by the executive branch, it is sent to congress for its approval. Here again, procedural rules determine the relative power between the executive and congress during this stage of the budgetary process. One key question is that of the prerogatives that congress has to modify the proposed budget. The hierarchical type of arrangement is one in which the congress can decide on the composition of the budget, shifting expenditures across budget items, but has no power to modify the overall size of the budget or the deficit.

This is the current situation in several countries, such as Peru and Venezuela. In Chile, congress can only cut but not increase individual expenditures, even if it can pay for them through reallocations. In a number of countries, congress can increase spending only with the approval of the government. In such cases, changes in the

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<th>Table 2.5. Debt Ceiling Constraints on the Budget Process</th>
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size of the budget can be negotiated, and the legislature can agree to pass other legislation proposed by the government in exchange for increases in the budget. In Argentina and Mexico, the congress cannot increase the deficit, but has no restrictions regarding spending. This leaves a loophole for the legislature to amend the budget by increasing the expenditure level, and at the same time pass legislation creating new revenues (more or less “real”), which might then fall short of expectations, resulting in the end in larger deficits. A number of countries, among them Bolivia, Guatemala and Paraguay, have no restrictions on the power of congress to modify the budget. Peru and Argentina were in this category until they reformed their budgetary processes in 1990 and 1992, respectively.

What happens if congress rejects the budget, or does not approve it within the constitutionally established time frame? Even in countries where the budget has always been approved on time, different rules in the event of rejection may result in different outcomes of the budgetary process. The weaker the relative position of the government on this issue, the greater the incentives to propose a budget that is more likely to be approved.

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Table 2.6. Authority of the Finance Minister in the Drafting Stage

<table>
<thead>
<tr>
<th>Congress can only propose amendments:</th>
<th>Considerably greater than other ministers (formally and in practice)</th>
<th>Somewhat greater than other ministers (formally but not in practice)</th>
<th>Equal or almost equal to other ministers</th>
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Table 2.7. Scope of Amendments by Congress

<table>
<thead>
<tr>
<th>Congress can only propose amendments:</th>
<th>That do not increase the deficit</th>
<th>That do not increase spending</th>
<th>That do not increase either the deficit or spending</th>
<th>With the government’s approval</th>
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Here again, institutional arrangements vary substantially across countries. An extreme hierarchical case, which applies to several countries in the region, is one in which congress can modify but not reject the budget proposal, and if congress fails to approve it in time, the original government proposal is adopted. This is the case in Chile, Costa Rica, Ecuador, Jamaica, Nicaragua and Peru. In most countries, the previous year’s budget is enacted, with the government (or in some cases, congress) redistributing spending between items. Some countries, such as Colombia or Panama, have different rules depending on whether the budget was rejected (in which case the previous year’s budget is adopted) or not approved on time (in which case, the one proposed by the government is enacted).

Under another arrangement, the government has to submit a new budget, which is the case in Brazil and Honduras. This has the disadvantage that the approval process can be subject to protracted negotiations between the executive and congress, which can lead on occasions to delays in adjustment to critical fiscal situations or to the simple absence of any approved budget for much if not all of the fiscal year. In Mexico and the Bahamas, no funds may be expended until the budget is agreed upon. In the case of the Bahamas, the government resigns if an agreement is not reached. In terms of the balance of power between the government and congress, this drastic possibility could go either way. One could argue that, since rejection is very costly for the country, the legislature would have incentives to come to an agreement on the budget. On the other hand, this institutional arrangement may induce the government to propose a budget that is more palatable to congress.

During the third stage of the budgetary process—budget execution—a relevant question is whether the budget can be revised upwards after legislative approval, and on whose initiative. The only country where the budget cannot be modified during the fiscal year is Uruguay, which also happens to be the only country with multi-year budgets. In Bolivia and Guatemala, congress has the initiative to increase the budget. In the rest of the countries, the initiative falls on the government. In some cases, laws specify limits to the budget revisions. For example, in Ecuador the government has the prerogative to increase the budget up to 5 percent without congressional approval, and up to 10 percent with approval.

Another important dimension is whether the government can cut the budget unilaterally during execution. As we shall see below, this provision cuts both ways.

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18 The multiyear budget in Uruguay may be modified annually through the Ley de Rendición de Cuentas, but cannot be modified during the fiscal year.
While it may strengthen the hand of the executive in the short run, it may also distort the overall budgetary process by making it less transparent.

**Rules That Ensure Transparency**

**Theoretical Considerations**

The word in Spanish for budget is presupuesto. This can be thought of as a composite word: presupuesto means assumption. Hence, presupuesto can be thought of as a pre-assumption or, equivalently, as an assumption squared. Rules and negotiations that are based on assumptions can be circumvented by manipulating expenditure and revenue estimates. If the government wants to hide a deficit, it can always overestimate revenues or underestimate debt service. A strong and prudent finance minister may want to hide expected revenues in order to assure a better fiscal result. However, congress can react by underfunding precommitted expenditures, such as debt service, and allocating the resources to new programs. Once revenues actually materialize, the minister will be forced to use them for the unfunded items.

This is one reason why lack of transparency matters: it can cause a breakdown of the negotiation process, because all sides use estimates in a strategic manner. Another implication is that lack of transparency may aggravate the agency problem because actions become less visible.

The budget is often not a single instance of annual allocation. There is the possibility to amend the budget during execution. If there is significant flexibility to make amendments, spending ministers have incentives to overcommit their budgets in order to force additional allocations. Aizenman and Hausmann (1995) provide evidence that such a process takes place in Latin America. These authors study the budget forecast errors and find that as inflation and the volatility of economic activity rise, so does the systematic underestimation of the budget. They explain this observation as an outcome of strategic interaction between two players: the finance minister and the spending ministers, or alternatively, the executive and congress. Spending ministers, who know more than the finance minister about the true cost of government programs, will report only cost-increasing shocks to the finance minister and ask for additional funds, but will keep the windfall profits of cost-reducing shocks. Anticipating this, the finance minister has an incentive to underestimate the initial allocation in the budget, and this tendency increases when volatility rises. Hence, inflation and volatility reduce the ability of the budget process to impose fiscal discipline.

An additional problem arises because of the incompleteness of the budget process. Off-budget items, con-
tingent claims on the budget by subnational governments, public enterprises and the banking system may hide from public discussion important allocative decisions and limit the ability to constrain agents who benefit from them.

In this context, an important issue is whether other public agencies, through their borrowing procedures, have the potential to complicate the government’s budget. This may happen if the government typically assumes the responsibility of debt originally contracted by other public agencies, and if these agencies (for example, public enterprises) have considerable autonomy to borrow. This creates a moral hazard problem since public agencies may borrow on the expectation that they will eventually be bailed out. A similar pattern of behavior may be present in the banking system.

### Transparency in Latin America

In most countries, taking responsibility for debt contracted by other public agencies has been common, indicating that bailout risk is a problem. Countries differ on the frequency with which these events occur, and on whether it happens just for debt that has been guaranteed by the government, or regardless of the guarantee. The countries where these events are frequent and cover even nonguaranteed debt are Ecuador, Peru and Venezuela. In most countries, public enterprises cannot borrow autonomously, but require the approval of the government or congress. The exception is the Dominican Republic, where borrowing is autonomous. The same was true of Argentina until 1992, but public enterprises now require government approval. In Chile, public enterprises cannot borrow at all. The question of borrowing by subnational governments is extremely important, but we will discuss it in the next chapter, along with the issue of decentralization.

Are the budgets all inclusive? Or are there special funds not included in the budget? More than half of the countries in the region have special funds not included in the general budget, which undermines the transparency of the budgetary process. These special funds are insignificant in several countries, but are quite substantial in countries like El Salvador and Uruguay. In the case of the latter, these funds represent approximately 10 percent of the budget and are channeled to various decentralized agencies, which have considerable authority how they are spent.

Can the government cut the budget unilaterally during budget execution? This question cuts across the hierarchical/collegial and transparency dimensions. Intuitively, it would seem that if the government can cut the budget at its discretion, fiscal discipline will be enhanced. However, it is also possible that, in such cases, the government will not have incentives to submit a small budget.

<table>
<thead>
<tr>
<th>Country</th>
<th>Exceptionally</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Only guaranteed debt</th>
<th>Including nonguaranteed debt</th>
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<tbody>
<tr>
<td>Argentina</td>
<td>Exceptionally</td>
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Table 2.10. Contingent Liabilities

Does the central government typically assume debt originally contracted by other public agencies?
And later on, it may be difficult to cut it even if this was intended from the beginning. In addition, the executed budget might not reflect the spending priorities implicit in the budget passed by the legislature. In this case, the budgetary process becomes less transparent and less meaningful as a way to allocate scarce resources among competing spending programs. The countries where the government has complete discretion to cut spending during the execution of the budget are the Bahamas, El Salvador, Paraguay and Trinidad and Tobago. There is more transparency if the government can cut expenditures only when revenues are lower than projected, which is the case in many countries in the region. In Panama and Peru, the budget cannot be cut at all, which seems a very inflexible solution.

### Index of Budget Institutions

On the basis of the characteristics described above, we constructed an index of budgetary institutions (IBI) that captures the extent to which the budgetary process in the different countries is subject to fiscal constraints and is hierarchical and transparent. The average value of the index for each country for 1990-95 is presented in Figure 2.5.

<table>
<thead>
<tr>
<th>Country</th>
<th>At government’s discretion on any item</th>
<th>For nonearmarked expenditures</th>
<th>When revenues are lower than projected</th>
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Do Budget Institutions Matter for Fiscal Performance?

Do better budget institutions as reflected in a higher index of budgetary institutions affect fiscal performance? Based on the preceding discussion, we expect countries that have a higher IBI to display relatively smaller spending and lower fiscal deficits and public debt.

Procyclicality may be a different matter. Constraints that enhance credibility in the commitment to fiscal discipline may improve the willingness of markets to lend in bad times, but might hamper the ability of the authorities to react in an efficient manner to shocks. Moreover, hierarchical institutions, by increasing the discretionality of the executive and the finance minister, may not empower agents that have incentives to properly discount the future.

For the same reason, we also have no strong priors.

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19 The IBI is based on a survey conducted by the Inter-American Development Bank that gathered information for 20 countries in Latin America and the Caribbean on the drafting, approval and execution of the budget. The index is similar to the one in Alesina, Hausmann, Hommes and Stein (1996), but adjusted for the 1990-95 period. Details about construction of the index are provided in Appendix A.

20 For example, a period-by-period balanced budget rule would prevent the government from running a deficit during recessions, and therefore make it unnecessary to run surpluses during expansions, introducing procyclicality in the fiscal response.
with respect to the direction of the impact of better budgetary institutions on the electoral budget cycle. On the one hand, they help control the commons problem that can worsen during election years. On the other, by granting more authority to the finance minister within the executive and to the executive relative to parliament, they can make it easier for the executive to strategically use fiscal policy for electoral reasons.

Table 2.12 splits the sample of countries into three uneven groups, those with high, medium and low IBI, and characterizes average performance of these three groups with respect to government spending, fiscal deficits and debt, procyclicality and the electoral budget cycle. Countries with better budgetary arrangements governing the fiscal decisionmaking process have lower deficits and stocks of debt. However, they tend to be more procyclical in their policy response. Furthermore, countries with low IBI appear to have a more intense electoral budget cycle.

With respect to deficits and debt, the differences between the group of countries with high and low IBI is striking: countries with high IBI have average primary surpluses that are 4 percent of GDP and debt-to-revenue ratios that are half the size of those observed in countries with low IBI.

The picture that emerges from Table 2.12 with respect to the size of government is less conclusive. When the size of government is measured by total expenditures of the consolidated public sector, the different groups do not differ in any meaningful way. The ordering turns out as expected only with a measure of government spending that excludes interest payments and social security benefits: countries with better budgetary arrangements have a smaller size of government. In the latter case, countries with low IBI have government expenditures that are 2 percent of GDP greater than countries with high IBI.

The formal statistical analysis performed confirms to a large extent the evidence presented in Table 2.12. Even when accounting for other determinants of fiscal deficits and debt levels, the index of budget institutions is significant in explaining cross-sectional differences. In contrast, countries with high IBI tend to behave more procyclically, although the results are less powerful. We were unable to find a significant statistical relationship between the size of government and the index of budgetary institutions, once other determinants of size are ac-

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1 Consolidated public sector, including central government, social security system, public enterprises and local governments.
2 The procyclicality of government consumption is measured by the correlation coefficient of the cyclical component of government consumption and the cyclical component of output.

Source: IMF, Recent Economic Developments.
The IBI was not a significant factor in explaining the intensity of the electoral budget cycle. From a quantitative point of view, the impact of budget institutions on debts and deficits is large in economic terms. As Figure 2.6 illustrates (and the formal estimations confirm), a country with an IBI of 0.45 is expected to have an average budget surplus nearly three percentage points of GDP below that of a country with an index of 0.65. The quantitative impact is even stronger for the primary budget surplus than for the overall surplus. A country with an IBI of 0.45 is also expected to have a debt-to-GDP ratio 20 percentage points higher than a country with an IBI of 0.65. The degree of procyclicality (as measured by the correlation coefficient between the cyclical components of government consumption and output) is expected to be 0.20 higher in a country with an IBI of 0.65 than in a country with an IBI of 0.45.

The previous results offer interesting possibilities to explore the interaction between electoral systems and budgetary arrangements. Can countries with good budgetary institutions governing the fiscal decision-making process generate sound fiscal behavior, whatever the electoral arrangements governing the political process? Fortunately, the answer is yes.

Electoral institutions as measured by district magnitude are, when considered in isolation, a relevant and quantitatively important factor in explaining cross-sectional differences in budget surpluses and debt levels. But their significance all but disappears when the quality of budgetary institutions is taken into account. The regression results—presented in Appendix A—suggest that a country with a high IBI, say 0.65, is expected to have a budget surplus 4 percentage points of GDP above, and debt levels 20 percentage points below, a country with an IBI of 0.45, regardless of whether those countries have a large or a small district magnitude, or a plurality or a proportional representation system. Thus, whatever the potential consequences of electoral institutions on fiscal discipline, these can be neutralized by adopting appropriate budgetary arrangements. The results are very much in line with those obtained by Hallerberg and Von Hagen (1997) for European countries.

These results are encouraging. For many supporters of PR systems, proportionality should be a goal in and of itself, virtually synonymous with electoral justice. We have argued, however, that these systems, by increasing the number of effective parties and allowing the representation of minorities, may undermine fiscal discipline by making it more difficult to solve coordination problems within the government and commitment problems across governments. The message of the evidence just presented indicates that a country that chooses an inclusive PR system on cultural, historical or equity grounds can solve potential coordination and commitment problems by adopting appropriate budgetary institutions, i.e., institutions that impose some external limits on the fiscal deficit, that introduce hierarchical elements in the drafting, approval and implementation stages of the budget process, and that increase transparency.

The empirical literature on budget institutions and fiscal performance has consistently found an impact of budget institutions on fiscal deficits and debt, but almost consistently has failed to find an association with government size (see Von Hagen and Harden, 1995, and Alesina, Hausmann, Hommes and Stein, 1996).
We asked earlier whether institutional arrangements matter for fiscal performance. This is the summary of our findings:

- Electoral systems are an important factor in explaining government size, but budgetary institutions are not.
- Budgetary institutions are a very important factor in promoting fiscal discipline, regardless of the type of electoral system a country has. Furthermore, good quality budgetary arrangements can neutralize the potentially undermining effect of proportional representation systems on fiscal discipline.
- Electoral systems and budgetary institutions are important determinants of the degree of procyclicality, i.e., the business cycle response of fiscal policy. Fractionalized political systems, i.e., systems with a high number of effective parties and coalition or minority governments, behave more procyclically over the cycle. More hierarchical budgetary institutions, although they help promote fiscal discipline on average, do not appear to contribute to a less procyclical fiscal response.
- The intensity of the electoral budget cycle does not appear to be systematically related to either the prevailing electoral system or the quality of budgetary arrangements.

The preceding discussion should not lead to the conclusion that electoral and budgetary institutions are the only types of institutions that impinge on fiscal soundness. Monetary institutions and exchange rate arrangements may also be instrumental for better fiscal outcomes. Thus, it is well known that an independent monetary authority may restrain the government from pursuing short-term expansionary policies. A commitment to an exchange rate peg has also been considered in the literature as a potentially useful disciplinary device, though this is a much more polemic statement (Box 2.2).

With respect to deficit bias, the findings in this chapter suggest some institutional design principles that should be taken into account. In general, deficit bias can be limited by providing key players with veto power over increases in spending and borrowing during budget approval and with some discretion to cut spending during execution.

Within the executive, the finance minister should be given the power to veto spending initiatives, especially when they are meant to be paid through an increase in the deficit target. The minister should also be empowered to propose spending cuts when the fiscal targets are likely to be exceeded. The executive should be empowered to enact these cuts without the need for congressional approval.

Congress should not be empowered to increase expenditures or the deficit over the amount proposed by the executive. However, it should be able to cut the proposed budget. If Congress has a role in determining the size of the budget, it should be in the form of approving the spending and borrowing ceiling proposed by the government and set prior to discussions regarding allocation of the budget. It is important that budget size be determined before composition. In this way, the opportunity cost of a spending program will be another program, rather than a larger deficit, thus changing the configuration of possible coalitions that may form to pass increased spending.

Congress should also have incentives to limit gridlock and come to an agreement on the budget. This can be achieved by adopting a deadline date clause benefiting the executive that states that if the budget is not approved by a certain date, the original budget proposal becomes law.

Hierarchical arrangements may limit deficit bias but still be behind the yet unsolved problems of procyclicality and electoral cycles. For example, electoral budget cycles can be explained as caused by an agency problem. As discussed, governments may exploit the public’s difficulties in distinguishing between healthy growth and an unsustainable fiscal boom. This problem may be aggravated by hierarchical structures that give much power to
Box 2.2. Can the Exchange Rate Regime Promote Fiscal Discipline?

This chapter primarily focuses on the impact on fiscal outcomes of the institutional arrangements that surround the budgetary and electoral processes. While it is only fairly recently that economists and policymakers have begun to appreciate the importance of these linkages, they have long debated the impact of a monetary institution—the exchange rate regime—on fiscal outcomes. Some economists and policymakers have, in particular, argued that fixed exchange rates are more conducive to fiscal discipline than are flexible exchange rates.

The argument that fixed exchange rates promote fiscal discipline begins with a proposition that commands universal consensus: some measure of fiscal discipline is required to maintain a fixed exchange rate. In the absence of this discipline, the fixed exchange rate system will survive for a while but eventually need to be abandoned. More controversial is the idea that once economic policymakers commit themselves to a fixed exchange rate, they will therefore be induced to manage fiscal policy in the disciplined manner required for the exchange rate regime to survive.

While not universally accepted, this line of reasoning has led some analysts and policymakers to promote fixed exchange rates as an institutional mechanism to promote fiscal discipline. For example, the commitment to a fixed exchange rate in Argentina has been credited with the country’s much more disciplined fiscal stance in the 1990s. Currency arrangements similar to those of Argentina have been proposed for Bulgaria, with the aim of reducing that country’s large fiscal deficits, and a similar system was briefly considered for Ecuador in early 1996.

A counterargument to this line of reasoning has recently been made by Tornell and Velasco (1995). They point out that fiscal indiscipline eventually generates inflation both under fixed and flexible exchange rates. The main difference is that while inflation will emerge immediately under flexible exchange rates, as the associated monetary expansion leads to a depreciation of the exchange rate, it will emerge only after a potentially long lag under fixed exchange rates, since the exchange regime can be defended for some time by selling foreign exchange reserves, and inflation only arrives when the regime collapses and the exchange rate is devalued. They thus argue that impatient policymakers will tend to choose higher budget deficits under fixed exchange rate regimes, because the inflationary cost of doing so is delayed.

What is the evidence? It is clear that inflation tends to be lower and less volatile under fixed exchange rate regimes than under flexible regimes (see Edwards, 1992, and Ghosh et al., 1997). However, as the Tornell-Velasco logic highlights, this may simply reflect the fact that inflation is delayed, not reduced in a sustainable manner, by fixed exchange rates. The answer to this question depends in large part upon whether fiscal policy is more disciplined under fixed or flexible exchange rates. Gavin and Perotti (1997) examined the Latin American experience, and found that fiscal deficits tended to be substantially larger under fixed exchange rates—some of their estimates suggest an impact of over 2 percent of GDP—and the association was very strong in statistical terms. Tornell and Velasco studied 12 stabilization programs in Latin America and found that, in cases where fiscal tightening was not achieved prior to the program, exchange rate based stabilizations typically failed to achieve fiscal adjustment after their implementation, in contrast with money based stabilizations, suggesting that the exchange rate commitment implied by the former stabilization strategy per se did not promote fiscal discipline. These results are not definitive, and further research is required. In particular, the results do not rule out the possibility that exchange rate commitments may contribute to maintain fiscal discipline once it has been achieved. However, the evidence to date suggests that a strong reliance upon an exchange rate commitment to produce a consensus for fiscal discipline may be a risky strategy.

the executive and the finance minister, since they both have incentives to use the budget to further their electoral chances. This might explain why hierarchy does not solve the problem.

To the extent that the problem is caused by asymmetric information between the executive branch and the public, better information and disclosure mechanisms may reduce the information gap, thus limiting the government’s ability to exploit it. In fact, better information and disclosure may be critical to improve the performance of budget institutions for several reasons. Because budget numbers are based on assumptions that can be manipulated by the players for strategic purposes, they tend to lose credibility and do not become an efficient basis for political negotiations and market expectations. For example, in order to circumvent the spending limit proposed by the executive, congress can underfund previously committed expenditures, such as debt service, in
order to increase spending on its desired projects. This would be formally consistent with the rules, but would imply an effective increase in the deficit. Similarly, the executive may overestimate revenues in an election year in order to justify a more expansionary fiscal policy.

One way out of this problem is to create an autonomous scorekeeper. Such an institution would be mandated to make estimates of government revenues and precommitted expenditures and to monitor and make public information on budget execution. It could also be asked to give its opinion on the adequacy of the fiscal stance from the point of view of sustainability. If endowed with statutory autonomy it may be sheltered from short-run political pressures, thus increasing its credibility. The U.S. Congressional Budget Office (CBO) and the New Zealand Treasury under the Fiscal Responsibility Act of 1994 play a function similar to the scorekeeper we describe (Box 2.3).

During an election year, the information provided by the scorekeeper to congress, the markets and the general public about fiscal expenditures and commitments would make the political process aware of the nature of the fiscal stance, increasing its ability to keep the government honest. Bond markets can play a similar disciplining role.

Let us now turn to the issue of procyclicality. We have argued, both in the previous chapter and this one, that governments may be forced to adopt contractionary policies in bad times because markets are unwilling to finance the deficits that would result from a more stabilizing response. This market reaction is due to the lack of credible commitment to eventually generate a surplus sufficient to pay back the additional debt. Markets may not know the nature of the fiscal shortfall. Is it only a temporary phenomenon that will be reversed automatically, without the need for major tax or expenditure adjustments? Or is the government simply trying to postpone the pain?

The scorekeeper may be able to help in this process. This institution could calculate an underlying or cyclically adjusted fiscal deficit in order to determine the longer-term sustainability of the fiscal stance. The cyclically adjusted deficit should include corrections for the position of the terms of trade, the real exchange rate, the current account and any other fiscally relevant variable that is perceived not to be at its long-run level. Consideration should be given to any factor or process that would cause the current deficit to be different from the one that would be obtained in the future if current fiscal policies were maintained.

This calculation would signal to markets the nature of the current deficit and would serve as valuable information in determining whether the government’s financial demands are an efficient use of its borrowing capacity, or if instead they reflect an attempt to postpone inevitable adjustments. In this sense, the scorekeeper might solve the asymmetric information problem pointed out by Saint-Paul (1994). A good government may have trouble borrowing in bad times because, given the public’s lack of good information, it cannot distinguish itself from an irresponsible one. Hence, it may be forced to use a procyclical reaction as a signaling device of its commitment to fiscal prudence. The scorekeeper may reduce the need to use this inefficient signal.

Obviously, the calculation of a cyclically adjusted deficit involves a lot of discretion and judgments. It is easy to distort the assumptions in order to achieve any desired result. That is one more reason to provide the scorekeeper with credible institutional autonomy. Otherwise, it will be perceived as exploiting its discretion over budget assumptions to further some political agenda. Even in the United States, it has been argued that since the majority party in congress names the head of the CBO, the office serves to further the political agenda of that party. Super-majority rules for the election of the authorities, the use of boards instead of a single head, and other institutional design elements can be adjusted to give credibility to the autonomous status of the scorekeeper in a manner consistent with the political culture and structure of each country. Furthermore, credibility of the scorekeeper might be enhanced by making it accountable to congress, to which it must report on the causes for the deviation between ex-ante estimates and ex-post results. Open discussion of numbers and methods, with healthy oversight by the economic academic community and from the International Monetary Fund in the context of the annual review process, may create additional incentives to keep the numbers honest.

The scorekeeper may also be helpful in improving fiscal sustainability. Under arrangements that are common in Latin America, it is possible for fiscal policies to become unsustainable, since budgetary allocations tend to be annual in nature while many of the details imply de facto longer-term commitments, the implications of which are seldom worked out. The decision to build a school, hospital or road involves future current expenditures to operate and maintain those assets. Expansions in one level of education today will require additions in the installed capacity of the next level of education tomorrow. Borrowing this year implies a debt service pro-
particularly important in this context are the unfunded pension liabilities of the public sector and of the social security system. These liabilities are based on entitlements whose actuarial soundness has often been lacking, but the budgetary process has not uncovered the rising implicit debts.

At the same time, it may not be possible to continue to raise taxes in line with planned expenditures. If the tax system is not well structured, revenues may not rise adequately. For example, new growing sectors might have been granted tax holidays, while taxes might be coming mostly from a few sectors that show little dynamism or are vulnerable to external shocks. This combination of implicit medium-term commitments and uncertain or inadequate expected revenues can lead to an unsustainable fiscal stance.

To track the intertemporal soundness of policy and avoid the perils of unsustainable intergenerational redistributions, the scorekeeper should be required to prepare formal medium-term budgetary impact studies to accompany the annual budget. These documents should assess whether current explicit and implicit expenditure com-
mitments are in line with expected revenues, given the existing tax structure and prudent borrowing plans. They should also evaluate the amount of risk from possible shocks that is implicit in the fiscal stance. Moreover, the scorekeeper should estimate the short- and medium-term impact of budget reallocations made by congress.

Better information and transparency may be enough in some cases to improve the procyclical and electoral budget cycle problems. If the political and bond markets can provide sufficient discipline, better information may force all budget players to behave in a collectively responsible manner. Other countries may want to go a bit further. If the budget is subject to large shocks and the political system is fragmented, the risk of a collapse in credibility because of fears of delayed adjustment may imply that markets will be very volatile, especially when there are signs of the need for difficult political agreements to deal with a fiscal gap. Also, such conditions may aggravate the dynamic commons problem by making it more difficult to save resources for a rainy day. Such countries may want to tie their hands a bit more in order to increase their credibility.

However, how to go about such a strategy? To attempt to achieve more credibility through tougher constraints on the deficit is dangerous. We have argued that high volatility makes balanced budget rules both inadequate and unworkable at the national level, leading to either procyclical fiscal reactions or creative accounting. One way of increasing the credibility of fiscal commitments is to limit the borrowing authority of the elected officials not to a simple constant number established in the constitution, but to a number calculated by an accountable autonomous institution that can make judgments about what number is most appropriate given the circumstances. This is the idea behind the National Debt Board proposed by Von Hagen and Harden (1995) for European countries and the National Fiscal Council (NFC) proposed by Eichengreen, Hausmann and Von Hagen (1996) for Latin America. It can be thought of as a scorekeeper with enhanced powers. Not only will it calculate current and estimated future deficits and give them meaning by separating cyclical effects from longer-term considerations, but it would also be empowered to set a maximum allowable deficit that congress and the executive could authorize. In other words, the maximum allowable deficit calculated by this institution would constitute a constraint on the political process, albeit a more flexible one than a traditional balanced budget rule.

The NFC is related to the Tax Boards that exist in several states in the U.S. As mentioned above, most states have balanced budget rules. To enforce such rules, legislatures are given the power to set spending, but the rate on the core tax—typically the sales tax—is set by an independent Tax Board in charge of making sure that spending commitments are fully paid for. Here again, the independent power of the Tax Board makes the commitment to fiscal balance credible and increases the transparency of the budget process by preventing strategic overestimation of revenues and forcing legislators to face up to the tax costs of their spending programs.

The NFC may be more appropriate at the national level because, as we have argued, given the volatility of fiscal revenues in Latin America, a balanced budget rule is not adequate. Secondly, given the ample number of tax bases used by the national government, it would be politically unacceptable to grant the power to choose between different taxes to an autonomous agency. Instead, the NFC chooses a sound deficit target, but leaves the political system free to decide on how to achieve it.

Having such an arrangement might solve many of the problems caused by the political distortions we have reviewed in this chapter. It would limit the commons problem by preventing the deficit from being the opportunity cost of an additional spending initiative. The dynamic commons problem could be limited because the NFC would set a deficit target in such a way that booms would get saved and carried to another day. Delayed adjustment could also be limited by provisions enacted to assure that the maximum deficit not be breached. Finally, the NFC would address the credibility problem. Its autonomy and long-term perspective would allow it to offset deficits in bad times with surpluses in good times, expanding market access when it is most needed and thus limiting procyclical adjustments. The electoral budget cycle would be prevented by design, and markets would not become as jittery during elections because the NFC would still set the maximum allowable deficit, no matter who wins the next election.

This solution may not be acceptable or convenient for many reasons. In practice, the NFC’s power to enforce the maximum allowable deficit may be limited by the fact that it does not have direct control over the budget and hence must rely on the rule of law, respect for institutions, and a deep and widely shared commitment to sound fiscal outcomes. Moreover, its autonomy is not guaranteed just by the letter of the law. Autonomous institutions such as independent central banks, utility regulators, bank supervisors and antitrust or antidumping authorities work better in some settings than in others, depending on national, sectoral and design aspects as
well as on the political traditions and culture of each nation. Legislators may question whether the NFC can be trusted to carry out the task it has been assigned without misusing its powers.

There are sufficient degrees of freedom in institutional design to make the space between a scorekeeper and a National Fiscal Council a fairly continuous one. Countries that have doubts about institutional capacity, accountability and autonomy may start out with formulations that are closer to a pure scorekeeper. Countries that value the credibility gains obtained by reducing the borrowing discretion of the political system, and have confidence in the adequate functioning of such an institution, would be willing to provide it with more authority.

Individual countries may find some combinations of these principles more appropriate than others, depending on their specific institutional, political and economic situation. What is important in the end is that polities adopt the right institutions so that democracy, in spite of the challenges it must face given its participatory nature, can deliver sound fiscal management.

23 See Eichengreen, Hausmann and Pratas (1997) for a discussion of the factors that seem to affect the performance of autonomy in practice. This study is based on an IDB research network project that compared 10 autonomous institutions in five countries.
REFERENCES


Chapter 3

FISCAL DECISIONMAKING IN DECENTRALIZED DEMOCRACIES

The previous chapter considered the problem of fiscal decisionmaking at the central government level, arguing that the rules of interaction among the agents involved in the budgetary process affect fiscal outcomes, and that electoral systems have an impact as well. However, an important dimension was left out of the analysis: the fact that many of the fiscal decisions are not made by the central government, but rather in a decentralized fashion by lower levels of government. In this chapter, we add the decentralization dimension to the previous analysis.

This dimension has become increasingly important as several countries in the region go through a significant process of decentralization, both on the political and fiscal fronts.¹ On the political front, the most important development has been the widespread adoption of democratic institutions at subnational levels of government.² This change, which goes beyond the return of democratic regimes at the national level, has been particularly dramatic at the municipal level, as Figure 3.1 shows. At the beginning of the 1980s, with few exceptions, local public officials in the region were appointed by the central government. Today, local public officials are elected into office in virtually every country.

On the fiscal front, while governments in the region are still characterized by a high degree of centralization, there is a clear trend toward decentralization. Figure 3.2 shows the unweighted average and the median of the degree of expenditure decentralization for 14 countries for which comparable data are available for 1985, 1990 and 1995. The degree of expenditure decentralization is measured as the proportion of total government expenditures executed by subnational governments.

The purpose of decentralization is not generally to improve fiscal discipline. Rather, decentralization has the potential to improve the aggregation problem by allowing a closer match between the preferences of the population and the bundle of public goods and services chosen by government. If preferences are heterogeneous across jurisdictions, the decentralized decision-maker can tailor the bundle of goods and services to better suit the preferences of the population, instead of providing a “one size fits all” bundle for the country as a whole. To the extent that preferences are aggregated among a smaller and more homogeneous group, the

¹ The issue of decentralization in developing countries has received considerable attention in the last few years, and many studies have focused on Latin America. Recent works on the region include Inter-American Development Bank (1994), López-Murphy (1994), Ter-Minassian (1997), an ECLAC/GTZ project on decentralization in the region, and several studies from the World Bank (such as Shah, 1994).

² We use the term subnational levels of government to encompass both the local (or municipal) level and the intermediate level, represented in different countries by states, provinces, departments or regions.
A social outcome should result in improved resource allocation under decentralization. In addition, decentralization can help solve agency problems by increasing the ability of voters to discipline local public officials. However, decentralization can have important effects on aggregate fiscal performance. Depending on the way intergovernmental relations are structured, decentralized fiscal decisionmaking can aggravate the coordination problem if jurisdictions have the possibility of shifting the tax burden of local government programs onto others.

The issue of intergovernmental fiscal relations is a complex one, involving five dimensions:

- Assignment of expenditure responsibilities among the different levels of government;
• Political autonomy that lower level governments are given to fulfill their responsibilities;
• Assignment of taxes among the levels of government;
• Design of intergovernmental transfers;
• Degree of borrowing autonomy given to the lower level governments.

After reviewing the main benefits and dangers associated with decentralization, this chapter provides an account of where countries in the region are in terms of these five dimensions. We establish the extent to which decentralization, and in particular the way decentralization is structured (i.e., the way the different dimensions are combined), has an impact on aggregate fiscal performance. Most of the data presented in this chapter were gathered through a survey on decentralization to which government officials in 20 countries in the region responded. 3

BENEFITS AND DANGERS OF DECENTRALIZATION

The Case for Decentralization

There are three functions into which government activities have been divided for conceptual purposes: the stabilization (or macroeconomic management) function, the redistribution function, and the allocation function. 4 Are these functions better served by the national government or by lower level governments? Let us advance the conclusion: there are serious limitations in terms of the ability of subnational governments to provide stabilization and redistribution services; it is mostly in the allocation branch that the benefits of decentralization emerge.

Macroeconomic Management

The central government should hold primary responsibility for this function. There are advantages of coordination that cannot be attained if local or state governments perform the stabilization function separately. Since state and local economies are relatively small and open, stabilization attempts at the subnational level would not be very effective because a large portion of the effects would be leaked to other jurisdictions. These interjurisdictional externalities would make the coordination problem even more serious. In addition, unlike the central government, which has other instruments such as exchange rate policy and monetary policy, the subnational levels only have access to fiscal policy. 5

Distribution

Mobility imposes serious limitations on subnational governments attempting to conduct redistributive policy. Attempts to redistribute from the rich to the poor will be followed by migration by the rich to other jurisdictions, and possibly migration of the poor into the jurisdiction. In this way, a local government that tries to redistribute income will find itself populated primarily by low-income populations, and there will be little to redistribute. For this reason, the redistribution function requires a coordinated approach that can better be provided by the central government. Lacking such coordination, there will likely be less redistribution than socially desired.

Allocation

This is where the benefits of decentralization are most likely to be realized. Public goods and services differ in their geographical characteristics. Only a few services, such as defense or foreign relations, are national in scope in the sense that their benefits accrue to the population at large. If the provision of defense were decentralized to accommodate the different tastes that jurisdictions might have regarding defense spending, each jurisdiction would have incentives to free ride on the defense services provided by others, a coordination failure that would lead to underprovision. In contrast, the benefits of other public goods, such as fire protection, are local in nature. Federal programs are often designed to provide equal amounts of a public good to all, regardless of the geographical characteristics of the good in question. Under decentralized decisionmaking, governments can be more responsive to the specific needs and preferences of the local population in each jurisdiction, and can tailor the provision of the "local" public goods to better satisfy those

3 The decentralization survey provides detailed information on expenditure and revenue assignment, political institutions at the subnational level, intergovernmental transfers systems, and borrowing procedures for the subnational levels, thus covering the five dimensions mentioned above. We are very grateful to those who took the time to respond to the survey. Their help has been invaluable.
4 See Musgrave (1959) and Gates (1972).
5 Gramlich (1987) has challenged the view that macroeconomic policy should be reserved exclusively for the central government, particularly in the case of large countries, where shocks can affect different regions in different ways. The oil shock, for example, improved economic conditions in certain parts of the United States (such as Texas), while pushing others into deep recessions. In this case, it is not obvious how stabilization policies by the national government would help, or even the sign that these policies should have.
preferences. The larger the differences in preferences across jurisdictions, the greater the benefits from decentralization.

Let us illustrate this point with an example. A jurisdiction that is primarily rural will probably have very different needs regarding irrigation programs compared to an urban jurisdiction. While it would be a stretch to suggest that centralized decisionmaking will provide exactly the same amount of this service to both jurisdictions, it is nonetheless certain that a centralized system would be less responsive to the preferences of each jurisdiction. Under centralized democracies, the preferences of the entire country’s population are aggregated in some way (depending on the electoral system in place) in order to determine, through the budgetary process, the country’s level and composition of expenditures. The resulting bundle is bound to differ substantially from the preferences of both the urban and rural population, thus generating welfare losses. Expenditure on irrigation for the country as a whole will probably be more than desired by the urban population, but less than desired by the rural population. Under decentralization, preferences are aggregated among smaller and more homogeneous (urban or rural) groups, so the social outcome should result in improved resource allocation.

Another related problem of centralized decisionmaking stems from the fact that, depending on the electoral system, some jurisdictions might not even be represented in the national congress. In this case, the preferences of these jurisdictions obviously will not be adequately taken into account when fiscal decisions are made. On deciding which projects to fund regarding road construction, for example, it is likely that these jurisdictions will be systematically left out, while those well represented in the budget process will receive most of the funding. Under decentralization, fiscal bundles may in principle be determined on the basis of each jurisdiction’s own preferences.

The fact that taxes and services will better reflect the tastes of the existing population, which could be called the static benefit, is only one of the positive effects of decentralization. There are some dynamic effects as well. One is that individuals can “vote with their feet,” as argued by Tiebout (1956), moving to the jurisdiction that offers the fiscal bundle that best suits their preferences. Apart from the direct effect on those who move, who obviously are better off, mobility has the additional effect of increasing the degree of homogeneity within the jurisdictions, leading to a better match between individual preferences and the fiscal bundles available to them.

An additional dynamic argument for decentralization posits that if different jurisdictions are providing the same service in different ways, then more technical progress is likely. In addition, if there is mobility or a high degree of political competition, this technical progress will spread rapidly, as authorities will have incentives to copy the successful jurisdictions to avoid losing the tax base or being voted out of office.

What effects does decentralization have on agency problems? Decentralization can help contain them by introducing some elements of competition that increase the incentives of governments to do the right thing. Decentralization gives more power to voters to “kick the rascals out” when they are acting according to self-interest rather than the interest of the community. But there are other ways that competition can reduce agency problems. Brennan and Buchanan (1980) depict the government as a leviathan seeking to maximize revenues and having monopoly power over the tax base. In this case, decentralization introduces competition for the tax base, resulting in a bundle of goods and taxes closer to the one desired by the population (which, in this case, means smaller government). In this way, mobility of individuals across jurisdictions brings the market for public goods and services closer to the “perfectly competitive” outcome. However, as we will see below, under more benign governments, tax competition may lead to inefficient taxation and underprovision of public goods.

To the extent that local services are financed by the jurisdiction’s own revenues—thus there being a close link between the benefits provided by these services and the costs to the local taxpayers—decentralization will result in increased accountability for the efficient provision of services. Citizens will have strong incentives to closely monitor local authorities. These incentives may be weaker if a substantial portion of local expenditures is covered through transfers from higher levels of government, and especially weak if local governments face weak budget constraints. If individuals do not perceive a clear link between benefits of local government programs and their costs, they will be less concerned with the efficiency in the provision of the services. More generally, decentralization will encourage political participation if individuals regard local policies as having a more direct impact on their lives, and feel that they have a better chance to be heard and make a difference at the local level.6

We mentioned in the introduction to this chapter that decentralization may aggravate coordination problems associated with government programs with concentrated benefits financed by a common pool of resources. However, under certain conditions, decentralization can actually reduce the extent to which a country is subject to this commons problem. Consider a country where all the government programs with national benefits (such as defense and foreign relations) are centralized, while all programs with local benefits are decentralized. Assume also that all local programs are financed with local revenues. In such a case, the commons problem is reduced to a smaller local game, since there are no programs with local benefits financed with national resources. As we will see below, such conditions are not typical, as decentralization is generally higher in the expenditure dimension than in the revenue dimension.

**Perils of Decentralization**

One of the most important dangers of decentralization is associated with incentives that lower level governments may have to behave in a fiscally irresponsible manner, primarily due to coordination problems. In part, problems of fiscal discipline are associated with an important asymmetry that countries face when considering decentralization. On the expenditure side, there are a large number of important local public goods and services that could be better provided by lower level governments. On the revenue side, however, finding solid tax bases for intermediate and local governments is difficult, particularly because of the mobility of tax bases across jurisdictions. Taxes suitable at the national level can, because of inter-jurisdictional mobility, introduce serious distortions and locational inefficiencies when applied in a centralized fashion. Apart from the difficulties introduced by mobility of tax bases, equity considerations and economies of scale in tax administration further limit the set of “good” tax bases to be assigned to lower level governments. The problem is compounded by the weakness of tax administration systems in most subnational governments in the developing world. This asymmetry between expenditure responsibilities and the capacity to generate revenues generates a gap, known as vertical imbalance, which is typically bridged through transfers from the central government.

The problem is that heavy reliance on transfers—unless these are very clearly defined, with resources allocated according to objective criteria not easily manipulated by recipient governments, and with little room for discretionality and bargaining between the different levels of government—may weaken the budget constraints of subnational governments. When this happens, there is scope for lower level governments to shift the cost of local programs onto others outside the jurisdiction, which constitutes the basis of the coordination problem and can result in overspending. Coordination problems may become even more serious in cases where subnational governments have a large degree of borrowing autonomy, in particular if the central government cannot avoid bailing subnational governments out in the event of financial trouble. If this is the case, subnational governments may overborrow and overspend, and then shift the burden of repayment onto the central government. Some authors have argued that these commitment problems at the central government level, which exacerbate coordination failures, are more likely to be important when there is a high degree of vertical imbalance, that is, when most of the expenditures of local jurisdictions are financed with transfers from the central government. In such cases, it is costly for subnational governments to get out of financial trouble by themselves, and difficult for the central government not to come to their rescue.7

A different type of coordination failure can occur if decentralization is not based on a well specified contract between the different levels of government that clearly determines each level’s responsibilities. Different levels of government often have concurrent expenditure responsibilities, and the manner in which these responsibilities should be shared is not clearly specified. This provides incentives to free ride. Local governments may choose to underprovide in areas of joint responsibility, forcing the central government into additional spending.

Much of the argument for decentralization is based on the premise that it will result in a better match between the preferences of the local population and the fiscal bundle of public goods and taxes offered by the government. Some of the arguments against decentralization question the above premise. There are two types of arguments: i) those that rely on agency considerations, calling into question the willingness of local officials to respond to the preference of the population; and ii) those that focus on the lack of institutional capacity of local governments to carry out the programs effectively, even if their goal is to meet the preferences of the population.

Regarding the first argument, it has been pointed out that in many cases, particularly in developing coun-

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tries, local governments are not democratically elected, or democracies do not work properly, so it is not clear to what extent local governments will be sensitive to the preferences of the population. If only a reduced portion of the population participates in elections, the political process is more prone to involve clientelistic relationships between the elected officials and a powerful minority that supports the government in exchange for favors. While there is no agreement on this issue, some authors have argued that this and other forms of corruption are more likely to occur in local governments.8

The second argument focuses on the lack of institutional capacity at the local level. Prud'homme (1995) emphasizes the weakness of local bureaucracies relative to the central government bureaucracy, a problem that is particularly serious in developing countries. Our survey provides support for his argument. The lack of institutional capacity at the subnational level was identified as one of the most important obstacles to decentralization in 17 of 20 countries. However, two points should be kept in mind. The first is that the gap in institutional capacity between the central and the lower level governments may be to some extent a transitional problem, and should diminish over time with the practice of decentralized decisionmaking. It would be hard for a local government to possess a capacity it does not use, but that capacity can develop once the need for it exists. The second point is that one needs to be careful with the comparison: decisions that would be taken by a mayor at the local level or by a minister at the state level in a centralized setting might be taken by a lower level bureaucrat under centralization. And it is not clear that a lower level centralized bureaucrat will have a better capacity to make the right decisions. Tanzi stresses the deficient public expenditure management systems in developing countries that result in ineffective control over expenditures. These systems, he argues, are even weaker at the local government level.

In summary, the gains from decentralization may be large, provided the following conditions are in place: i) local officials are elected, the democratic process works well enough to provide sufficient electoral discipline, and decisions are more visible and accountable; ii) local governments have institutional capacity to handle their expanded responsibilities under a decentralized regime; iii) the decentralization contract between the different levels of government (implicit or explicit) is clearly specified; iv) as much as possible, correspondence is kept between the benefits of government programs and the cost to local taxpayers; and v) intergovernmental relations (including the transfer system and borrowing rules) are such that subnational governments face hard budget constraints. In what follows, we will discuss where Latin America is in terms of the five dimensions mentioned in the introduction, starting with the decentralization of expenditures. The combination of some of these dimensions will provide an idea of the extent to which some of the conditions for a successful decentralization are being met in the region.

**DEGREE OF DECENTRALIZATION OF EXPENDITURES**

*Countries Typically Highly Centralized*

The Latin American tradition of centralization dates to the period of colonial administration and remained in place after the independence movement, partly due to the inherited colonial structures, and partly to the need that countries had to keep their distant provinces together under one power. Even today, in spite of recent trends toward decentralization in several countries, the region remains highly centralized.

Figure 3.3 shows the degree of decentralization, measured as the percentage of total government spending executed by subnational governments, in Latin American and Caribbean countries.6 For the sake of comparability, the average degree of decentralization for the countries in the OECD is also included. The difference between the two sets of countries in this regard is substantial. While, on average, subnational levels of government are responsible for 35 percent of expenditures in industrialized countries, they execute less than 15 percent in Latin America. The figure also shows the variety of experiences in the region regarding the degree of decentralization. While in most countries less than one government dollar out of ten is spent by subnational governments, other countries such as Argentina and Brazil are quite decentralized.

As expected, the federal countries, indicated in the figure by the red bars, are typically more decentralized than the unitary ones. The average degree of decentralization in federal countries is 35 percent. Under federal structures, subnational governments usually possess a

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9 Our measure of decentralization is broad, including expenditure on activities always centralized, such as foreign relations or defense. For some empirical experiments for which we had available data, we did use a measure of decentralization that excluded social security.
considerable amount of political and administrative independence. In contrast, lower levels of government in unitary countries are subordinated to the central power.10

Size is an obvious candidate to explain the differences in the degree of decentralization among countries. Figure 3.4 (a, b and c) shows the association between country size and decentralization, when size is measured by population, land area and GDP. The ovals represent Latin American countries, while the triangles represent those of the OECD, and a regression line has been included for each region. It appears that country size is positively associated with higher decentralization, regardless of the variable used to measure size. Two points should be highlighted here. First, size in Latin America seems to be a more important determinant of decentralization than in the OECD countries (indicated by the steeper slope of the lines corresponding to Latin America). Second, the regression line for Latin America, in each case, lies below that of the OECD, indicating that the region is highly centralized even after accounting for country size.

**Decentralization Ongoing in Several Countries**

While Figure 3.2 showed the region’s tendency toward decentralization during the last decade, Figure 3.5 shows the change experienced in this regard by individual countries. The drive toward greater decentralization has been the rule rather than the exception. The degree of decentralization for 1985 is depicted on the horizontal axis, while the 1995 value is represented by the vertical axis. In some cases, the federal label is more a declaration than a reality. The degree of autonomy enjoyed by subnational governments in Venezuela, a federal country, has been lower than that in Colombia or Bolivia, both unitary countries. The only two countries in the region that approximate real federal systems of government are Argentina and Brazil, so it is not surprising to see them at the top of the decentralization list.
axis. The 45 degree line divides the countries that have decentralized (above the line) from the ones that have experienced further centralization (below the line). Notice that most countries are above the line, and several of them—particularly Argentina, Chile, Colombia, Mexico and Peru—have decentralized expenditure considerably. In contrast, there are no countries that have advanced toward further centralization in any significant way.

In the figures up to now, decentralization has been defined as the portion of total government expenditure spent by subnational governments, which comprises both the state and the local level. This measure, however, does not capture the redistribution of spending authority between state and local governments that has occurred in some countries in the region. Figure 3.6 tackles this question, showing the trends in the proportion of subnational spending executed at the local level for the six most decentralized countries.

In Argentina and Mexico, the division of subnational spending between state and local governments has been surprisingly stable. In both countries, local spending accounts for about a sixth of total subnational spending. In Brazil, Colombia and, most significantly, Bolivia, decentralization from the state to local level has been quite substantial. In contrast, in Venezuela local governments have been losing spending power, both in relation to subnational and total spending.

Assignment of Expenditure to Different Government Levels

The shares of subnational governments in total government spending give us an idea of the relative aggregate importance of the different levels of government, and its change over time. It does not show us, however, whether any activities have actually been decentralized. An increase in the share does not necessarily mean that the state or local levels have taken on new responsibilities. It may be the reflection of fiscal adjustment at the central level, or increased expenditures by the subnational levels on activities for which they already had responsibility.

The information on expenditure assignment gathered through the decentralization survey allows us to determine the extent to which different countries have actually transferred expenditure responsibilities to lower level governments during the last decade, or extended these governments more autonomy to handle the responsibilities they already had (Table 3.1).11

A couple of points are worth noting. First, only a handful of countries are engaged in the transfer of expenditure responsibilities to lower level governments. Second, decentralization of activities has mostly been confined to the larger countries, which were the ones

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11 The survey asked not only about the level of government responsible for providing or contracting various services, but also about the level responsible for deciding on the amount to be spent, allocating expenditures within the activity, and setting standards and supervision. The information is summarized in Appendix Table C.1.
most decentralized to begin with. Of these, Argentina, Bolivia and Mexico were the most active countries, transferring to the states a number of important responsibilities, particularly in the social sectors. While in Argentina and Mexico responsibilities were assigned mainly to the state governments, services in Bolivia were decentralized primarily to the municipal level. In Colombia, most changes involved assignment of responsibilities to the local level for a large number of services. But these responsibilities are shared with higher levels of government. In Venezuela, most changes involve shared responsibilities between the central and state level for a num-

### Table 3.1. Main Changes in Expenditure Responsibility, 1985-96

<table>
<thead>
<tr>
<th>Country</th>
<th>Services</th>
<th>New Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Argentina</strong></td>
<td>Secondary education and hospitals</td>
<td>Provinces that already carried out expenditure now have exclusive rights in providing the service.</td>
</tr>
<tr>
<td></td>
<td>Housing</td>
<td>Previously at the national level, now an exclusive mandate of the provinces.</td>
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<tr>
<td></td>
<td>Nutrition programs</td>
<td>Provinces carry out the expenditure exclusively and define its structure. The government, which previously had exclusive say, still decides on expenditure amounts and standards enforcement.</td>
</tr>
<tr>
<td></td>
<td>Highways</td>
<td>Cooperative enforcement at the federal and province level switches to the federal level exclusively.</td>
</tr>
<tr>
<td><strong>Bolivia</strong></td>
<td>Preschool, primary and secondary education and public health</td>
<td>Cantons participate in the expenditure structure definition, which is no longer the government’s prerogative.</td>
</tr>
<tr>
<td></td>
<td>Highways</td>
<td>These services, previously provided exclusively at the national level, are now provided at the provincial level. The central government still retains the faculty of deciding the amounts and enforcement.</td>
</tr>
<tr>
<td><strong>Colombia</strong></td>
<td>Housing</td>
<td>No longer an exclusive attribute of the central government. Municipalities now participate in all stages of the decision process, except in enforcement, which is still handled exclusively by the central government.</td>
</tr>
<tr>
<td></td>
<td>Nutrition programs</td>
<td>Now administered by the municipalities, although the central government has discretion on the expenditure amounts and structure.</td>
</tr>
<tr>
<td></td>
<td>Primary and preschool education</td>
<td>Municipalities are starting to participate in decisions involving amounts and completion of the expenditure, previously central government and departmental attributions.</td>
</tr>
<tr>
<td></td>
<td>Public health</td>
<td>Decisions are now primarily at the department and municipal level, previously the domain of the central government.</td>
</tr>
<tr>
<td></td>
<td>Hospitals</td>
<td>Now the responsibility of the departments instead of the national government. Municipalities have a say in the decisionmaking process and the national government has an exclusive mandate in supervision.</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td>Preschool, primary and secondary education</td>
<td>No longer an exclusive domain of the central government. States now share or have exclusive domain for some decisions. The federal government still centralizes decisions concerning amounts and supervision activities.</td>
</tr>
<tr>
<td></td>
<td>Public health and hospitals</td>
<td>Decisions on expenditure structure and implementation, previously an exclusively federal domain, are now mostly or exclusively in the hands of the states.</td>
</tr>
<tr>
<td></td>
<td>Nutrition programs</td>
<td>The service is now a concurrent responsibility of the federal government and the states.</td>
</tr>
<tr>
<td></td>
<td>Water and sewage</td>
<td>Previously federal, now exclusively a state mandate.</td>
</tr>
<tr>
<td></td>
<td>Roads and highways</td>
<td>The federal government transfers responsibility to the states.</td>
</tr>
<tr>
<td><strong>Venezuela</strong></td>
<td>Police</td>
<td>Municipalities now have a say in a previously federal and state domain.</td>
</tr>
<tr>
<td></td>
<td>Water and sewage, public health, hospitals, highways and irrigation</td>
<td>States now participate in a previously exclusively centralized activity. Central government still in charge of supervision.</td>
</tr>
<tr>
<td></td>
<td>Housing</td>
<td>States now have certain influence in expenditure decisions.</td>
</tr>
<tr>
<td></td>
<td>Garbage collection</td>
<td>Previously a government responsibility, now exclusively handled by municipalities.</td>
</tr>
</tbody>
</table>
ber of services previously provided exclusively by the central government.\textsuperscript{12}

A priori, one would expect that countries where lower levels of government have taken on new responsibilities should be the ones that experienced the largest changes in terms of the degree of decentralization. While this is true for a number of countries such as Argentina and Mexico, a comparison of Table 3.1 and Figure 3.6 shows that it is not always the case. In Chile, Peru, Uruguay and Honduras, subnational governments substantially increased their share of spending without taking on any new spending responsibilities. In contrast, in Bolivia and Venezuela, the increased responsibilities of lower level governments were not reflected in an increased proportion of subnational expenditure.

Figure 3.7 summarizes which activities have been decentralized to a greater extent and which have been more commonly transferred to subnational levels over the last decade. The figure measures the degree to which each activity was decentralized throughout the region in 1985 (horizontal axis) and 1996 (vertical axis). This measure takes into account not only whether subnational governments were responsible for providing the service, but also their degree of autonomy in doing so.\textsuperscript{13} A higher value means that the activity is decentralized in more countries, or that subnational governments are more autonomous in carrying out their responsibilities.

Most activities are centralized to a large degree. The exceptions are urban transportation and, particularly, solid waste management. These three activities respond closely to the ideal of a local public good, since they offer locally concentrated benefits, and economies of scale do not play an important role beyond a reasonably small size. For this reason, it is not surprising that these sectors are the most decentralized. The activities above the 45 degree line are the ones where the degree of decentralization has increased. In general, decentralization of spending responsibilities has been more pervasive in the social sectors than in infrastructure, in part because the latter were in many cases transferred to the private sector.

In sum, although Latin America remains highly centralized, especially when compared to developed countries, there is a tendency toward increased decentralization. Several countries have been transferring expenditure responsibilities from the central government to state and local governments, and extending these governments more autonomy to handle the responsibilities they already had. This trend has been particularly important in social services such as health and education.

\textbf{POLITICAL DIMENSION OF DECENTRALIZATION}

The basic gain from decentralization comes from its potential to improve the match between public goods offered by local governments and preferences of the population. For this potential to be realized, however, the conditions need to be in place for decentralization to solve problems of agency. Obviously, an important condition is to have democratic governments at the lower levels. But this alone might not be enough. Research on civic traditions and participation suggests that decentralization performs better when local communities have active civic and political participation, which in turn is associated with the tradition of self-government.\textsuperscript{14} When

\textsuperscript{12}It may surprise the reader not to find Brazil in the table. Brazil was already quite decentralized in 1985, and the decentralization associated with the constitutional reform of 1988 involved revenues rather than expenditure responsibilities.

\textsuperscript{13}The measure is constructed in a way that precludes it from being affected by privatization activity. A detailed description of this measure, which we call the Activity Decentralization Index, is included in Appendix A.

\textsuperscript{14}See Putnam (1993).
these conditions are in place, the assumption that local governments are in a better position to satisfy the preferences of the community is more plausible. Active and participative communities supply better information about their preferences to public officials and monitor their performance more closely. In this section, we discuss the recent evolution and characteristics of political systems at the subnational level in the region. The aim is to determine the extent to which subnational governments have political autonomy and public officials are accountable to the population.

The fiscal centralization that characterizes Latin America is partly the result of the small amount of political autonomy that subnational levels of government have traditionally enjoyed in most countries. During the 1980s and 1990s, however, the political landscape has gone through a great transformation, marked by the return of democracy. This democratic movement strengthened demands for autonomy at the subnational levels. As seen in Figure 3.1, different constitutional and legal reforms allowed subnational governments to be ruled by elected officials after years of appointments by central government authorities. Today, mayors are elected through a democratic process in nearly all countries of the region. Several countries adopted elections at the intermediate level as well, but this was not as widespread, reflecting the lower degree of autonomy that intermediate governments typically have under unitary systems.

In spite of this dramatic progress, it is important to stress that citizen participation is not something that changes overnight. In societies lacking an established tradition of local self-government, and where local democracies are a recent phenomenon, low civic participation in the political process is likely to be part of the political landscape for a while, until these democracies become more established. Low participation poses a threat to the success of decentralization by increasing the likelihood that agency problems will develop. It can create the conditions for corrupt practices and clientelism in subnational governments, capture of local and state institutions by special interest groups, or entrenchment of the traditional regional political elites in the new local administration. In a context of greater autonomy from the central government, the only way to prevent corruption and other self-serving practices by public officials is through the control of their constituencies. If that control is deficient, problems of governance and accountability may be aggravated by decentralization. In summary, decentralization without political participation and civic involvement has a much higher probability of failure than if there is stronger political and civic involvement.

The good news is that elections of public officials were not the only changes introduced in the region. They were complemented, in some countries, by the introduction of mechanisms of popular participation and by changes in the electoral systems to increase the degree to which local officials are accountable to the local population. Examples are the separation between the election dates at the national and subnational level (in Colombia, Dominican Republic, Ecuador and Venezuela), or the separation of the ballots in elections between national and local officials (in Honduras). Table 3.2 summarizes some of the most important recent changes in the region in terms of subnational electoral systems, autonomy and local political participation.

It is important to take stock of where the different countries are today in terms of elections, electoral systems and participation mechanisms at the lower levels of government. Table 3.3 shows whether the executive at each level is elected into office and presents data regarding the electoral systems both for the executive branch and the legislative branch. Are the elections direct or indirect? Are the elections for state legislatures and municipal councils based on proportional representation or plurality systems? Is reelection allowed? Do the dates of elections at the state and municipal levels coincide with those at the national level? Other than the vote, are there other mechanisms for popular participation in government decisions?

All these questions can be relevant when considering the potential for agency problems. Apart from the obvious effects of elections on agency, it can be argued that local public officials are more accountable to the local population under direct elections than under indirect elections, where party discipline might have a larger role in the outcome. In Latin America, elections are generally direct, both for the intermediate and local level. If the election dates at the local and national level coincide, it is likely that the outcome of the local election will be very much influenced by the outcome of the national election. In this case, again, local party politics plays a large role. Although election dates for central and lower levels coincide in most countries, there is a ten-

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15 In a few countries, elections for mayors are not tied to those for the municipal council. In Honduras, Mexico and Peru, the first name in the winning list for the municipal council becomes the mayor. In Belize, Costa Rica, Jamaica and Trinidad and Tobago, the democratically elected municipal council appoints the mayor.
dency in the region to make them more independent. If officials can be reelected, they have an additional incentive to satisfy the preferences of the voters. However, re-elections, in particular for the executive branch, could also lead to strategic behavior by the incumbent, resulting in political cycles.

At the state and local legislatures, plurality (or first-past-the-post) systems generate stronger incentives for candidates to establish a solid reputation with the local electorate. Under proportional representation systems, party politics may be a more important element in determining the composition and the order of the lists. The downside of PR systems, as we discussed in the previous chapter, is that they generate an aggregation of preferences that tends to underrepresent those of the minorities. Probably for this reason, most countries have adopt-

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Event</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahamas</td>
<td>1996</td>
<td>New local elections law</td>
<td>Mechanism allowing for elections at the local level created.</td>
</tr>
<tr>
<td>Bolivia</td>
<td>1994</td>
<td>Constitutional reform</td>
<td>Local office term limit increased to four years. The hierarchical relationship of department capital municipal councils over provincial municipal councils eliminated.</td>
</tr>
<tr>
<td>Brazil</td>
<td>1982</td>
<td>Constitutional reform</td>
<td>State governors to run for election. Direct elections for municipal capital prefectures.</td>
</tr>
<tr>
<td></td>
<td>1985</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1988</td>
<td>Constitutional reform</td>
<td>Greater political and financial autonomy of the subnational governments and formalization of a multiparty democratic government. Introduction of plebiscite and referenda mechanisms.</td>
</tr>
<tr>
<td></td>
<td>1996</td>
<td>Constitutional amendment</td>
<td>Allows for the immediate reelection of state governors and mayors. Mayoral elections are now permitted on dates different from general elections.</td>
</tr>
<tr>
<td></td>
<td>1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>1991</td>
<td>Constitutional Reform Law No. 19.097</td>
<td>Municipal elections implemented. Regional governments created.</td>
</tr>
<tr>
<td></td>
<td>1992</td>
<td>Supreme Decree No. 662</td>
<td>Enacts new municipalities law that regulates the election of mayors and council members.</td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td>Supreme Decree No. 291</td>
<td>Enacts new regional governments and administration law (regional government officials are not popularly elected).</td>
</tr>
<tr>
<td>Colombia</td>
<td>1986</td>
<td>Legislative Act No. 1</td>
<td>Mayors to run for election. Subnational governments authorities are now elected by popular election. Elected officials now include department governors as well as mayors. Elections for these offices should not coincide with general elections.</td>
</tr>
<tr>
<td></td>
<td>1991</td>
<td>Constitutional reform</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1994</td>
<td>Law 131</td>
<td>Governors and mayors can now be suspended for not fulfilling their electoral platforms.</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1994</td>
<td>Constitutional reform</td>
<td>Presidential elections are separated from legislative and local.</td>
</tr>
<tr>
<td>Ecuador</td>
<td>1991</td>
<td></td>
<td>Elections for provincial representatives and municipal council members can now be held on dates other than general elections.</td>
</tr>
<tr>
<td>Honduras</td>
<td>1991</td>
<td>Reforms to Electoral Code and Political Organizations Code</td>
<td>Voting ballots now separated into local and central levels.</td>
</tr>
<tr>
<td>Mexico</td>
<td>1997</td>
<td></td>
<td>First-time elections for Federal District general election.</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>1995</td>
<td>New Electoral Code</td>
<td>Mayors, previously elected by the municipal councils, now elected by direct vote (relative majority).</td>
</tr>
<tr>
<td>Peru</td>
<td>1992</td>
<td>Constitutional reform</td>
<td>Less autonomy for intermediate level, so as to keep only two levels of government.</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1989</td>
<td>Election and removal of state governors act</td>
<td>State governors to run for election for the first time.</td>
</tr>
<tr>
<td></td>
<td>1989</td>
<td>Municipal reform</td>
<td>Municipal mayors, previously appointed by municipal councils, now elected by direct vote.</td>
</tr>
</tbody>
</table>
In several countries in the region, citizens have other channels of political participation in the decisions of their jurisdictions in addition to election of public officials and representatives. These channels include referenda, citizen initiatives, and other forms of expression of popular will or disagreement with public officials’ decisions. All these mechanisms should help solve the agency problem. Under an interesting mechanism in place in Colombia since 1994, governors and mayors can be thrown out of office if they fail to carry out the platforms on which they were elected. This maximizes accountability, although it has the potential to create problems of governance. Evidence from Switzerland and the United States suggests that government spending tends to be smaller in jurisdictions where citizens participate directly in the decisionmaking process, so that certain elements of direct democracy exist.16

To determine whether there is an association between political autonomy and participation at subnational levels, and the extent of expenditure decentralization, we created an index that captures this political dimension, using as ingredients all the elements discussed above: elections, characteristics of the local electoral system, and existence of other forms of political participation. In addition, we included the index of political rights published by Freedom House, which measures the fairness of elections and the extent to which the rights of citizens to actively participate in the political process are respected.17 A detailed description of our measure, which we call Index of Political Autonomy and Participation, is included in Appendix A. Figure 3.8 presents the value of our index for each country for which we were able to obtain data.18

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Table 3.3. Elections and Citizen Participation at the Subnational Level

<table>
<thead>
<tr>
<th></th>
<th>Intermediate</th>
<th>Local</th>
<th>Legislative</th>
<th>Do elections coincide with those at the national level?</th>
<th>Are there any?</th>
<th>By popular initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Executive</td>
<td>Legislator</td>
<td>Direct election</td>
<td>Electoral system</td>
<td>Immediate re-election</td>
<td>Electoral system</td>
</tr>
<tr>
<td></td>
<td>Elective position</td>
<td>Direct election</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Argentina</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bahamas</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bolivia</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Brazil</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Chile</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Colombia</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Domin. Rep.</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>El Salvador</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Guatemala</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Honduras</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mexico</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Panama</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Paraguay</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Peru</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Uruguay</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Venezuela</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: Shaded areas indicate that the level of government does not exist. Systems for election of legislative bodies: In proportional representation systems (PR), the seats are distributed in proportion to the votes obtained by each party according to some allocation formula. In plurality systems (PL), only one candidate is elected per electoral district. Mixed systems (Mix) combine features of both.

* In Costa Rica, mayors are elected by municipal council members, who in turn are elected by popular vote.

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16 See Pommerhene and Schneider (1983) and Santerre (1986).
17 Freedom House indices are available only at the country level, so we make the implicit assumption that respect for political rights at the subnational level will closely match that of the country.
18 The Bahamas was excluded from this index because the local level only became autonomous in 1996.
The countries that have a larger degree of political autonomy and civic participation at subnational levels, according to our index, are Chile and Uruguay, followed by Argentina, Brazil and Venezuela. Are political autonomy and participation associated with the degree of expenditure decentralization? The relationship between these two variables is depicted in Figure 3.9. The figure suggests that a positive (though not very strong) association exists between political autonomy and participation at lower levels of government, and the extent to which government expenditures are decentralized. Note that we are talking about an association between the two rather than a specific causality. In fact, there are compelling arguments to justify causality in both directions. Political participation could increase the demand for decentralization, since the public understands that it will lead to its wishes being better taken into account. At the same time, increased decentralization may increase interest in participating in the political process, since the local government would now be responsible for a wider range of public goods and affect the lives of the population to a greater degree.

Is there any downside to political autonomy at the lower levels of government? In fact, strong and autonomous state or local governments have the potential to aggravate coordination problems. This possibility will be especially important in cases where the central government plays a role in financing lower level government expenditures, and at the same time needs the support of the lower levels to pass legislation through congress. This can lead to gridlock and to protracted bargaining between the different levels of government, particularly if the rules that define intergovernmental relations, such as the transfer system, are not clearly defined and leave room for discretion. As we will see below, the potential for coordination problems can be more serious if a high degree of political autonomy also encompasses the autonomy to borrow.

**TAX ASSIGNMENT AMONG LEVELS OF GOVERNMENT**

The problem of decentralization is not limited to the question of assigning expenditure responsibilities among the different levels of government according to the level that, given the characteristics of each public good or service, will be in a better position to provide it efficiently. How provision of these services by each level is financed is also a crucial dimension of decentralization. One possibility would be to assign revenue responsibilities to each level so that it can fully finance its assigned expenditures. This strategy can be costly in terms of the efficiency of the tax system, as an important number of tax bases can be exploited more effectively by the central government. A different possibility would be to centralize revenue responsibilities and finance the provision of decentralized services through the use of intergovernmental transfers. The problem with this strategy is that it breaks the link between the benefits of state and local government programs and the costs to the taxpayers who directly benefit from these programs. This problem is compounded if the lower level governments do not face hard budget constraints. By failing to generate the right “tax-prices” for government programs, this strategy can result in greater demand for state and local government programs than is socially desirable, and can lead to overspending.
In most countries, financing the activities of subnational governments lies somewhere between the two possibilities outlined above, and Latin America is no exception. While part of the expenditures is financed by the subnational government’s own revenues, a significant portion is covered by central government transfers. This section discusses which revenue sources are appropriate for lower level governments and provides information on tax assignment practices in the region.

The literature on fiscal federalism offers important guidance on the issue of tax assignment, i.e., the assignment of taxing powers among the different levels of government. The following is a list of general guidelines concerning assignment of revenue sources to the different levels of government:19

1. Taxes on mobile tax bases should be primarily left to the central government (except for user charges and benefit taxes), since mobility will limit the ability of lower level governments to control the tax rates without losing the tax base.20 Allowing subnational governments to levy taxes on mobile factors can result in tax competition, a coordination problem that can lead to decreased revenues and underprovision of public goods and services. A good example is the tax abatement wars that sometimes occur when different jurisdictions try to attract new businesses. Assigning mobile tax bases to subnational governments will also result in locational inefficiencies, as factors might move, for tax reasons, out of the jurisdictions where they are most productive.

2. A special case of taxes on mobile factors are those used for redistributive purposes, such as progressive income taxes. Redistributive taxes should, in general, be reserved for the central government. Not only will migration result in an inefficient jurisdictional allocation of the factors of production if these taxes are assigned to lower level governments; it will also render the redistributive efforts of the government ineffective.

3. Taxes that when levied by lower level governments are liable to fall onto taxpayers from other jurisdictions should be centralized. A shift of the tax burden onto others outside the jurisdiction lowers the tax price of public programs, and can result in excessive spending. Local jurisdictions, however, will have incentives to rely heavily on these taxes, such as those on hotels and restaurants in tourist areas, rather than on more visible taxes that fall on the local population, such as the property tax, which is usually unpopular.

4. Taxes levied on tax bases that are unequally distributed (such as natural resources) should be centralized. This is probably a more important constraint in developing countries, where the tax bases are usually more unevenly distributed.

5. Taxes that are subject to important economies of scale, or that require information at the national level, should be centralized.

6. Taxes subject to large cyclical fluctuations should be centralized. This is important in cases where the environment is volatile, very much the case in Latin America, particularly if subnational governments have limited credibility in borrowing autonomy, and thus have limited ability to smooth expenditures over the cycle.

7. To the extent possible, subnational governments should rely on user charges and benefit taxes (even on mobile factors), where the payments are closely associated to the benefits received. These revenues do not result in allocative inefficiencies, and send the right price signals for the determination of the level of public services to be provided.

8. Nonbenefit taxes at the subnational level should only be levied on rather immobile tax bases. An example of this would be the property tax.

It should be clear from the above list that the conditions for a tax to be a “good” local tax are rather restrictive. As a result, the number of tax bases that can efficiently be exploited locally are more limited than the more abundant spending obligations that should be assigned to the subnational governments. To make matters worse, tax administration systems in most subnational governments in the region are rather weak. For this reason, countries that decide to decentralize expenditures to any significant extent often have to choose between having a large degree of vertical imbalance, or assigning to subnational governments revenue sources that do not satisfy some of the conditions outlined above, and may therefore introduce important distortions.

Figure 3.10 shows which taxes are most frequently assigned to lower level governments. The first figure shows the number of countries where the tax is assigned to the intermediate and to the local levels (or to both). The second figure distinguishes subnational governments that only administer the tax from those that to some extent control tax policy, setting the tax rates or the tax base. It is clear from the figure that, in a number of cases, lower

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19 These guidelines are based on Musgrave (1983), Oates (1994) and Norregård (1997).
20 Benefit taxes are taxes based on the principle that those who benefit from public services should pay for them. An example of a benefit tax is the fuel tax, where payments are associated with the benefits derived from the use of road infrastructure.
level governments collect taxes but have no control over tax policy, as in Chile, Colombia, Peru and Nicaragua, and to some extent in Mexico. Generally speaking, the rest of the countries tend to give the subnational governments more autonomy in determining all the relevant aspects of the revenues that are assigned to them.

The tax most frequently assigned to subnational governments is, not surprisingly, the property tax: such was the case in 16 of 20 countries surveyed. In most cases, the tax was assigned to the local level. Land and existing structures are the least mobile of tax bases, which makes the property tax a good candidate for a local tax. The high visibility and transparency of this tax is another advantage, as it fosters accountability. However, visibility and transparency also create political resistance to the tax, limiting its revenue potential.

Taxes on vehicle circulation are also used at lower levels in many countries. This tax can be interpreted as a user charge or benefit tax, as it is paid by those who make the most use of the road infrastructure. Other taxes frequently assigned to lower levels are those on industry and trade, and on gambling. Some sales taxes, such as excises and retail taxes, are appropriate for the intermediate level, provided tax rates are not too different across jurisdictions. Wholesale or production taxes, in contrast, are likely to be exported to other jurisdictions, and thus should be centralized.

One of the most decentralized countries, Brazil, relies heavily on a value-added tax at the state level. This tax clearly departs from the conventional prescriptions of the fiscal federalism literature, as it is difficult to administer and generates important distortions. In the particular case of Brazil, tax rates differ according to the region of origin and destination of the goods. In Argentina, the main source of income for provincial governments is a cascading turnover tax, which also introduces severe distortions, regardless of the level to which it is assigned. It is scheduled to be replaced by a single stage sales tax as part of the Pacto Fiscal between the central government and the provinces. The cases of Argentina and Brazil illustrate the tradeoff that countries have to make when they engage in significant decentralization of expenditures. They must choose between high degrees of vertical imbalance and the assignment to lower level governments of tax bases that are either distortionary or would be better left to the central government.

There are, however, two tax bases that have been underutilized at the subnational level but have the potential to increase the self-reliance of lower level governments significantly without imposing high efficiency costs. This would help resolve in part the tradeoff discussed in the previous paragraph. The first is the fuel tax, which would be appropriate for subnational governments, since, like the vehicle tax, it can be understood as a user charge for road infrastructure. However, it is only used at the subnational level in Brazil, Colombia and Mexico. The other is a local income tax levied as a supplement to the national income tax. In this case, the cen-
tal government levies the federal income tax, and the state or local government “piggybacks” by setting a supplementary rate. In this way, different levels of government share this tax base. Although the income tax is not suitable for subnational governments given its redistributive objective and mobile base, supplementary flat rates on the federal tax liability eliminate the redistributive dimension from the local component of the tax. In addition, the tax can be understood as a price for local services, so it does not necessarily induce inefficient allocation of resources.

None of the countries in the region has exploited the income tax at the state or local level.

Vertical Fiscal Imbalance

The gap between the level of spending required to carry out the responsibilities assigned to subnational governments and the revenues the subnational levels generate themselves is called the vertical fiscal imbalance. This gap is generally bridged through the use of central government transfers, including revenue sharing arrangements. The degree of vertical imbalance for each country is presented in Figure 3.11. For comparison, the figure includes the average for the OECD countries.

The figure points out two key facts. First, vertical imbalance in the region is higher than in industrialized countries. While the average fiscal imbalance for countries in Latin America is 52 percent, in OECD countries it is 42 percent. Second, within Latin America the degree of vertical imbalance varies substantially from country to country.

Is there any association between vertical imbalance and decentralization? Figure 3.12 answers this question for both groups of countries. While there is no obvious association between decentralization and vertical imbalance, a similar pattern appears in each group: the degree of vertical imbalance among relatively centralized countries varies substantially, while the more decentralized

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23 For an analysis of the convenience of implementing local income taxes, see Bird (1993).
24 Two countries share tax bases in the form of piggybacking of local governments on other federal taxes. One is the Dominican Republic, where the central government collects the property tax and local governments apply a surcharge to the federal tax. Peru uses piggybacking for the sales tax. In both cases, it is the national level that sets the surcharge rates.
25 The measure of vertical imbalance is defined as the ratio of intergovernmental transfers from the central government, including tax sharing, over total revenues (own plus transferred) of the subnational level. An alternative measure, also used in the literature on fiscal federalism, is the ratio of transfers and subnational expenditures. Both measures coincide when subnational governments run balanced budgets. The data sources are listed in Appendix D.
countries exhibit less variability within each group. Furthermore, while the more decentralized countries in the OECD have vertical imbalances that average less than 35 percent, decentralized countries in Latin America have an average vertical imbalance of around 50 percent. This suggests that finding good tax bases to assign to subnational governments is more difficult in developing countries.

The high degree of vertical imbalance in decentralized countries in the region creates the potential for coordination problems, particularly if the systems of intergovernmental transfers contain important elements of discretionality, which makes it more likely that central governments will transfer resources to cover fiscal gaps of lower level governments. Coordination problems may also arise if these governments have a large degree of borrowing autonomy, which, combined with high degrees of vertical imbalance, can affect the degree of commitment of the central government not to bail out jurisdictions in financial trouble.

**Expenditure and Tax Assignment: A Joint Decision**

In the fiscal federalism literature, the problem of expenditure responsibility assignment generally precedes the discussion on tax assignment. The reason that has been advanced is that it is necessary to have an idea of what the financing needs at each level of government are when allocating resources among the different levels. Although this reason appears convincing, we believe the issue of expenditure and tax assignment should be addressed together, as suggested by Tanzi (1995). To see this, consider that the decisions regarding decentralization should take into account three possible sources of inefficiency. The first is inefficiency in providing public goods and services; expenditure decentralization can help resolve problems of aggregation and agency. The second is inefficiency in taxation. And the third is the inefficiency introduced by the lack of incentives for fiscal responsibility, which can be associated with large vertical imbalances. Deciding on expenditure assignment first and tax assignment later is a process of decentralization. The reason is that the current tax base is likely to be too high a level of decentralization. The reason is the failure to take into account the cost, in terms of the increases in the last two types of inefficiency, of decentralizing expenditures. A joint decision would result in a lower degree of decentralization.

**INTERGOVERNMENTAL TRANSFERS**

While vertical imbalances are mostly covered through transfers from the central government, the design of an effective transfer system is a complicated task. Part of the difficulty comes from the fact that there are a variety of objectives that a transfer system generally addresses: regional equity, achievement of national goals under decentralized provision of services, correction of interjurisdictional spillovers, or simply to fill the gap resulting from the asymmetric assignment of expenditure responsibilities and revenue powers among levels of government. Transfers that are appropriate to further one objective may complicate achievement of another. For these reasons, transfers systems in most countries include a variety of transfers, rather than just one.

What type of transfers do we usually find in Latin America? To answer this question, we use a taxonomy of transfers developed by Bahl and Linn (1992) specifically for the case of developing countries. Transfers are categorized according to two criteria: how the total amount (or total divisible pool) of the transfer is determined, and how it is allocated among the different jurisdictions. The total pool can be determined as a specified share of a tax or group of taxes, as a fixed amount, in an ad hoc or discretionary way, or as reimbursement of approved expenditures (for example, under capitation grants). This total amount is distributed among the different jurisdictions in one of four ways: according to the jurisdiction where the taxes were collected; according to a formula; in a discretionary way, or simply by reimbursing eligible costs. Transfers that reimburse approved expenditures are generally earmarked for use in specific sectors or activities. The rest of the transfers, in general, tend to have few strings attached, and can be used for general purposes.

Table 3.4 provides information on the number of transfers in each category for the region as a whole.

There are many important angles to the design of intergovernmental transfers. Given the scope of this chapter, we will concentrate on those that may have more of

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26 While we do not find a clear association between decentralization and vertical imbalance in our sample of Latin American countries, other authors have. Bahl and Linn (1992) find that vertical imbalance increases with decentralization in a sample of city governments. Their evidence suggests that, in the developing world, the vertical imbalance tends to worsen in countries that go through a process of decentralization.

27 Appendix Table C.3 provides information on the transfer systems. For each country, it shows the percentage of total funds transferred corresponding to each category. Detailed information on the most important transfers in each country is presented in Appendix Table C.4.
an impact on aggregate fiscal performance. Our main concern is the potential for coordination problems when, as a result of high degrees of discretion in the transfer systems, subnational governments do not face hard budget constraints.

**Degree of Discretionality**

Transfers can be discretionary in terms of the determination of the total pool, or with respect to allocation. Table 3.4 shows that more than half of the transfers where the total pool is discretional are also allocated in a discretionary way. These transfers leave the central government a lot of flexibility to determine the amount to be transferred, and to direct resources to the jurisdictions with the greatest needs. But for the same reason, unless the central government is very strong vis-à-vis the subnational governments, transfers are more likely to result in soft budget constraints for the subnational governments, and thus do not provide adequate incentives for fiscal responsibility. This view is based on the belief that, under discretion, transfers will tend to be allocated to those jurisdictions that are in financial strain, or simply have a gap between their expenditures and their available resources.²⁸

A subnational government could spend excessively, declare that it has no money to pay salaries of public employees, and ask the central government for a bailout. It could cast the blame on the central government and claim it did not get its fair share to begin with. It may be more difficult for the central government to commit to not extend a supplementary transfer to the subnational governments if it has the discretion to do so, compared to a rules-based approach with predetermined formulas. If commitment on the part of the central government is weak, the different jurisdictions will feel that they can shift part of the costs of their programs onto the rest of the country. When this happens, there will be a coordination failure, and a situation may develop in which subnational governments spend beyond their means, and then receive ex-post supplementary transfers from the central government. This can have serious macroeconomic consequences, leading to excessive spending and severe inflationary pressures.

From the perspective of the recipient governments, it is important that transfers be stable and predictable. Discretionary transfers do not score well under this criterion: they are the most unstable and unpredictable, sometimes making it difficult for these governments to adequately fulfill their responsibilities.

There are several transfers in which the total amount is defined in an ad hoc way, but are allocated according to a prespecified formula. The use of this type of transfer is limited to Chile, Colombia and Peru. In this case, the consequences of discretionality may be somewhat less serious. The different jurisdictions will probably bargain with the central government for an increased pool, but the returns they expect from this bargaining process are probably smaller than under full discretion, as they will only receive a small part of any increase in the total transfer. In only a few cases does discretionality apply to the allocation but not to the total amount. An example is the Aportes del Tesoro Nacional in Argentina. This is a very small transfer, so the consequences for aggregate fiscal performance cannot be too large. However, the transfer does not generate the right incentives for fiscal discipline, at least for the smaller provinces, since it is large compared to the budgets of some of these.

To determine which countries rely more heavily on discretionary transfers, we have constructed an indicator that takes into account all the elements discussed above. A detailed description of the measure, which we call the Index of Discretionality of Intergovernmental Transfers,
can be found in Appendix A. Figure 3.13 shows the extent to which the transfer systems in each country are characterized by discretionality, both in the determination of the total pool and its allocation.\textsuperscript{29}

Peru and Trinidad and Tobago are the two countries that rely most heavily on completely discretional transfers. Peru is a highly centralized country, where the subnational governments have a small degree of political autonomy. For this reason, it is possible for Peru to have a discretional transfer system without this generating a coordination problem, as the bargaining power of subnational governments is very small vis-à-vis that of the central government. As Figure 3.13 shows, several countries are at the opposite extreme: discretionality does not play a role in their transfer systems. Bolivia, Ecuador, El Salvador and, to a lesser extent, Mexico, have transfer systems somewhere in the middle: they involve a fair amount of discretionality in both dimensions.

Transfers Determined as a Share of Tax Revenues

These transfers are the most commonly used in the region. In some cases, allocation is done according to the point of collection of the taxes in question. In this way, a proportion of what is collected in each jurisdiction returns there, which increases incentives for tax compliance, as people know that part of the payment will remain within their communities.\textsuperscript{30} In most cases, however, the allocation is done according to a predetermined formula, which can include a variety of criteria or simply be the result of past negotiations among the different governments. These types of transfers are by far the most important in Argentina, Brazil, Colombia and Venezuela. They are ideal for equalizing fiscal capacities among the different jurisdictions and often include in the formula criteria related to socioeconomic conditions, such as the percentage of the population with unsatisfied basic needs, the inverse of the income per capita, and population.\textsuperscript{31}

There are several important issues related to all shared tax transfers that can have an effect on aggregate fiscal performance. The first is that this type of arrangement restricts the ability of the central government to undertake fiscal adjustment, particularly in cases where the amount transferred is a significant portion of central government revenues. For example, if the central government increases tax rates in order to close a deficit, a large portion of the new revenues generated through this channel will be directly transferred to the subnational governments, so tax increases will be less effective in delivering the desired adjustment. And there will be an additional unwanted effect: now the subnational governments will have access to (and spend) more resources, precisely when the central government is trying to adjust.\textsuperscript{32}

Another consequence of tying transfers to revenue sources is that, if revenues are procyclical and the environment is volatile, the result is a volatile and procyclical revenue stream for the subnational governments. And, as documented in Chapter 1, macroeconomic volatility and procyclicality of revenues are very much part of Latin America’s economic landscape. The financing needs of the subnational governments do not vary with the cycle, and, ideally, neither should the fiscal resources available to them. During booms, subnational governments experience important increases in their revenues, which they typically spend. Then, during recessions, unless they have borrowing autonomy and good access to credit, they are forced to adjust spending considerably and, due to budgetary rigidities, inefficiently. This story applies to some degree to Argentina, where the boom that followed the Convertibility Plan resulted in explosive growth of revenues from 1991 to 1994, which was transmitted to the provinces through the tax-sharing mechanism. Most

\textsuperscript{29} The figure excludes those countries for which we did not have complete information on the amounts transferred, such as Brazil, Paraguay and Uruguay.

\textsuperscript{30} An example is Paraguay, where each department receives 15 percent of the value-added tax collected within its territory.

\textsuperscript{31} Colombia and Mexico include incentives for fiscal effort among the criteria for allocation.

\textsuperscript{32} This point has been made in D8 (1994) and in Tanzi (1995). The increase in subnational spending when the central level is trying to adjust has been called “fiscal perversity.”
provincial governments increased spending in line with the increase in revenues. Then, after the Tequila crisis, several of these provincial governments had to go through a costly process of adjustment. This issue has prompted some authors to recommend that transfers to provinces in Argentina be fixed amounts, rather than shares of taxes, or that they be smoothed out in some way. In the region, however, neither fixed transfers nor smoothing mechanisms have been commonly used.

**Conditional Transfers**

Conditional transfers are those earmarked to be spent in specific sectors or activities. These transfers are used when the central government wants to impose its spending priorities on the subnational governments. Needless to say, these transfers restrict the autonomy of the subnational governments in deciding how to spend their budget. When a service is provided in a decentralized way, the central government may want to insure that a minimum level of the service is provided in all jurisdictions. This is achieved by setting common minimum standards in terms of access and quality of the services, and at the same time transferring resources, earmarked for the targeted activity, to help attain these standards. Examples in education are minimum levels of expenditure per student, or mandatory years of education. The use of conditional transfers is quite common. For the region as a whole, we have estimated that out of every dollar transferred to subnational governments, a quarter is conditional, while the rest have few or no strings attached. The sector of activity most frequently targeted by conditional transfers is education, followed by health, water and road infrastructure.

![Figure 3.14](image_url)

**Conditionality of Transfers**

Note: Transfers in the Bahamas, Bolivia, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Panama, Paraguay, Suriname and Trinidad and Tobago are unconditional.

One conditional transfer worth mentioning is the Chilean grant for education, the most important in the country. It consists of a fixed subsidy per student enrolled, and is accompanied by minimum standards of spending per student. These capitation types of grants have important advantages compared to those determined as a share of revenues: they do not limit the capacity of the central government to conduct macroeconomic policy, and they are not procyclical. Rather, they are stable and predictable, and when they increase, it is not in response to an increase in revenues but to an increase in output (more students enrolled) that calls for more financing. For these reasons, we think that these types of grants, only in use in Chile, should be used more frequently in the region. Their only possible drawback, from the perspective of the central government, is that they generate entitlements and make the budget more inflexible in the event that fiscal retrenchment is needed.

Matching grants are a special type of conditional transfer used to correct interjurisdictional spillovers. Under these programs, the central government transfers resources to lower level governments conditional on a certain level of cost-sharing by these governments. The objective is to modify the relative prices that the subnational governments face in order to have them spend more on services subject to positive spillover effects. A classic example of the use of matching grants is for the construction of interstate roads. Since this kind of infrastructure project also benefits those living in other states who do not contribute with their taxes to cover the costs, the government at the central level can finance a portion of the investment to avoid underprovision of roads. The extent of cost sharing between the central level and subnational governments should be consistent with the degree of spillover.

The use of matching transfers is not widespread in Latin America, however. Only four countries—Bolivia, Colombia, Mexico and Venezuela—have some kind of matching grant program in place. A drawback of matching grants is that they tend to be allocated to richer jurisdictions, which are in a better position to provide the counterpart funds.

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SUBNATIONAL GOVERNMENT BORROWING AUTONOMY

The rules regarding borrowing by subnational governments in Latin America vary considerably from country to country. Our interest in this issue stems from the fact that, as in the case with discretionary transfers, borrowing autonomy can potentially lead to soft budget constraints for the subnational governments. At the heart of the matter is the commitment problem: it is often difficult for central governments to commit not to bail out state and local governments when they are in financial trouble. This is a case where the commitment and coordination problems are complements: absent the ability of central governments to commit, borrowing autonomy will result in coordination failures, leading to irresponsible fiscal behavior on the part of the subnational governments.

A case can be made for allowing state and local governments some capacity to borrow. Because the benefits of investments such as schools or roads are spread over time, it makes sense to borrow (at least to some extent) so that payments are spread over time as well, rather than have the current taxpayers foot the whole bill. However, state and local governments should not borrow past the point where the rate of return (economic and social) on the marginal investment project being undertaken with the borrowed funds is equal to the interest rate. At this point, the cost of an additional project funded through debt would be higher than its benefit. These governments, however, might want to borrow beyond this point if they think they can shift part of the cost of repayment onto others outside the jurisdiction, such as the central government. Moreover, when the risk of bailouts exists, markets are clearly not an adequate disciplining device. If lenders expect the central government to bail out the local governments in the case of default, they will be ready to accommodate the borrower. In this case, constraints on subnational government borrowing may be the right policy.35

The key, then, is whether borrowers and lenders believe the cost of repayment can be shifted to the national government. The important question is what determines the ability of central governments to commit not to bail out local governments? There is still a lot to be learned in order to answer this question, but there are a few hypotheses. Eichengreen and Von Hagen (1996) have argued that an important factor is the degree of vertical imbalance. If the subnational governments have robust tax bases available to them, and generate a large part of their revenues themselves, central governments will find it easier to ask them to bear the cost of adjustment in case of financial difficulties. If, in contrast, subnational governments have weak tax bases and most of their resources are transfers from the central government, it will be costly for the subnational government to resolve the crisis by itself, and therefore difficult for the central government to commit not to extend a bailout.

One could argue that what matters is not only the degree of vertical imbalance, but also the capacity of the subnational governments to autonomously decide on issues of tax policy. For example, in Colombia, subnational governments collect several taxes, and as a result vertical imbalances are relatively small. However, subnational governments cannot autonomously determine the tax base or the tax rates. In cases such as this, all a state can do to increase revenues is to strengthen tax administration.36

Another factor that affects the degree of the central government’s commitment is the existence or absence of public banks owned by subnational governments. When subnational governments own banks, these banks often are the primary source of government debt. Particularly in the case of large jurisdictions, it might be difficult for the central bank not to rescue a financially troubled state bank, since failure to do so might result in the collapse of the payments system. Knowing this, state banks and governments may not face a strong constraint. This mechanism has been important in some of the larger Brazilian states, where vertical imbalances are among the smallest in the region, but where the state governments have relied heavily on state banks for financing, and where the governments and their banks have been characterized by the lack of an arms-length relationship.

To what extent is there borrowing autonomy at the subnational level in the countries of Latin America and the Caribbean? There are a number of aspects that can affect the degree of borrowing autonomy. The first five relate to constraints on subnational borrowing and the last two to borrowing practices that might weaken these constraints. Table 3.5 summarizes the types of borrowing rules present in each of the countries studied. A more detailed and complete description is included in Appendix Table C.5.

14 It is also possible that, if the projects being financed have a high social return but do not produce a stream of revenues that allow for their repayment, financial constraints will force governments to borrow below the optimal level.


16 Naturally, cutting expenditures is also a possibility.
Are Subnational Governments Allowed to Borrow?

Although there are considerable differences in the degree of autonomy, subnational governments in the region generally do have the ability to borrow. An exception is the Bahamas, where local governments cannot contract debt. In Chile, borrowing by subnational governments requires a specific law that needs to be approved by a qualified majority if the repayment period exceeds the presidential term. No such laws were approved in the period under study, and for this reason in the survey the answer was that subnational governments cannot borrow. Mexico and Venezuela do not allow subnational governments to contract external debt.

Is the Borrowing Decision Autonomous?

The rules regarding borrowing authorization vary significantly across countries. Of the 18 countries for which we obtained information, seven require central government authorization for all borrowing: Bolivia, Brazil, Guatemala, Honduras, Panama, Dominican Republic and Venezuela. Subnational governments may contract internal debt without central government approval in Argentina, Colombia, Mexico, Peru and Uruguay. In Ecuador, subnational governments can borrow from any source without authorization by the central government.

How Is Subnational Debt Guaranteed?

National guarantees on subnational government debt could have ambiguous effects on their access to borrowing. These guarantees make the subnational governments better subjects of credit, but they are usually accompanied by central government authorization requirements, so the central government has the prerogative to restrict borrowing by lower level governments. And many governments do exercise this prerogative with caution.

There is, however, a mechanism that has been gaining importance recently in several countries, namely Argentina, Brazil, Colombia and Mexico, whereby future tax sharing funds corresponding to a jurisdiction are used to guarantee that jurisdiction’s debt. What is peculiar about these arrangements is that in case of default, the money is collected by the creditor directly from the central government before being transferred to the subnational government. In this way, as long as a large enough portion of the future tax sharing funds have not been committed, the creditor is in fact subject to the central government’s risk, rather than the risk of the jurisdiction. Even

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Table 3.5. Borrowing Autonomy in Latin America

<table>
<thead>
<tr>
<th>Country</th>
<th>Borrowing by SNGs</th>
<th>Central govt. approval required on SNG debt</th>
<th>Debt cannot be used for current expenditures</th>
<th>Numerical debt limits in all or most SNGs</th>
<th>SNGs own banks</th>
<th>There are important SNG-owned firms with liberal borrowing practices</th>
<th>Tax sharing used to guarantee SNG debt</th>
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1 Subnational governments (SNGs).
when in some cases these guarantees also require the approval of the central government, it is difficult to deny the use of what are, after all, resources of the subnational government. Therefore, central governments have been much more liberal in allowing these guarantees, in contrast to cases where they extend guarantees with their own funds. In some cases, this has significantly improved the access of subnational governments to credit while reducing the cost of borrowing. On the downside, it is another way in which the discipline that markets can impose is bypassed, since all jurisdictions tend to be perceived as having similar risk regardless of their fiscal performance.

What Are the Numerical Constraints on Subnational Borrowing?

Numerical borrowing constraints on subnational governments in a number of countries are of two types:

- Quantitative constraints either by law or the constitution specifying that the debt service (or debt) cannot exceed a given percentage of current revenues. Examples are most provinces in Argentina (debt service has to be below 20/25 percent of current revenues), departments in Colombia (debt/current revenue cannot exceed 80 percent, or interest payments/operational savings cannot exceed 40 percent), and municipalities in Costa Rica (debt service on nonrevenue-generating investment projects cannot exceed 10 percent of ordinary revenues).

- Limits that restrict the ability of the national financial system to lend to subnational governments. This is the case in Brazil, where lending to subnational governments cannot exceed the 1989 figures (in real terms), and in Colombia.

There is ample evidence from state governments in the United States suggesting that numerical constraints have a significant constraining effect on deficits and debt. These constraints offer subnational governments some degree of autonomy, within well specified bounds. The problem with numerical constraints is that they often generate incentives to circumvent them through creative accounting. In some cases, the limits have not been respected. A number of subnational governments in both Colombia and Argentina are above those limits today.

Are there Limitations on the Use of Debt by Subnational Governments?

Eight countries in the region impose constraints on the use of borrowed funds by subnational governments. For the most part, these countries have adopted what has been called the “golden rule,” which stipulates that borrowing may only be used to finance investment. If enforced, this rule implies that the government’s current saving cannot be negative, which imposes discipline on the budget process. Since investments produce benefits spread over time, financing them through borrowing allows payments to be spread over time as well. Some countries allow borrowing for structural reforms (Argentina) or for severance payments (Colombia). These activities could also be viewed as investments whose benefits are spread over time. In contrast, borrowing to finance current expenditures or budget shortfalls cannot be justified on the same grounds. Half of the countries do not impose any restrictions on the use of borrowed funds (see Table 3.5).

Do Subnational Governments Own Banks?

The three countries where subnational governments own banks are, not coincidentally, the three countries where the extent of subnational indebtedness is highest: Argentina, Brazil and Colombia. In Argentina and Brazil, the state banks have played a particularly large role in financing the state governments. In Colombia, the presence of state banks has been much less important. The lack of an arms-length relationship between the government and its bank ensures easy access to financing, and limits the ability of the market to impose discipline. Apart from significantly increasing government borrowing autonomy, the close link between the government and the bank causes two further problems: first, it softens the budget constraint for the government by increasing the bailout risk, which may result in overborrowing by subnational governments; and second, the state banks usually do not operate according to business criteria, but often allocate credit according to the political priorities of the government. This can result in the bank running into trouble and needing a government rescue, in turn weakening the fiscal solvency of the government. Argentina and Brazil, however, are taking measures to reduce the exposure to the problems posed by state banks. An important process of privatization of the state banks in Argentina covers most of the provinces. In Brazil, new rules limit the capacity of state governments to borrow from their banks.

Do Subnational Governments Own Public Enterprises with Liberal Borrowing Practices?

Even the most stringent of rules for borrowing by subnational governments can be undone if there are large public enterprise sectors with liberal borrowing practices. The
The section on budget institutions in the previous chapter focused attention on the institutional arrangements that govern the budget process at the national government level. The form of these arrangements, however, is important at every level of government. Collecting and processing data on budgetary and other fiscal institutions for lower level governments would obviously have been an enormous task, well beyond the scope of this study. However, a recent study by Sanguinetti and Tommassi (1997) has done precisely that for the Argentine provinces. The study shows that provincial fiscal institutions are an important determinant of provincial fiscal performance.

The authors collected substantial information on institutional arrangements related to the budget process at the provincial level in order to build an index that captures the strength of these institutional arrangements. The index is based on the following institutional aspects:

- Restrictions imposed on the legislature to amend the budget proposal submitted by the governor. These range from inability to modify spending and the deficit to no restrictions.
- Arrangements regarding instances when the budget is not approved by the start of the fiscal year. Only one province enacts the budget submitted by the governor. In the rest, the previous year’s budget is adopted.
- Strength of borrowing restrictions. Provinces differ on the kind of majority needed in the legislature to approve new debt, the existence and stringency of numerical restrictions, and restrictions on the use of debt.
- Strength of borrowing restrictions at the municipal level, based on the same criteria as above.
- Degree of independence from local authorities of fiscal auditing agencies, based on faculties, composition, method of appointment of members, and length of tenure.
- Characteristics of the tax sharing agreements between the provincial governments and their municipalities. In particular, the degree to which the distribution mechanism is discretionary or responds to predetermined criteria, and the appropriateness of the criteria used.
- Presence of explicit references in the provincial constitution regarding promotion of specific economic activities.

For each of these categories, the authors assigned the provinces values between 0 and 10, according to the nature of their institutional arrangements, with higher scores reserved for those which were more hierarchical, imposed more stringent borrowing constraints, and led to a higher degree of transparency. The Index of Fiscal Institutions for the provinces that results from adding the scores of all these categories for each province is presented in Figure 3.A.

Figure 3.B shows a negative association between the Index of Fiscal Institutions and the size of the provincial primary deficits over 1983-96. Thus, for the case of Argentine provinces, the design of fiscal institutions does matter for fiscal outcomes. This important result obtained by Sanguinetti and Tommassi suggests that efforts at reforming fiscal institutions at the subnational level appear to be well justified.
subnational government often ends up paying the bills for the public enterprise. The bulk of the debt of the province of Buenos Aires was originally contracted by the electricity company, ESEBA, and was later taken over by the province. Countries where public enterprises have relaxed borrowing rules are Argentina, Brazil, Ecuador and, to a lesser extent, Mexico, where borrowing requires the approval of the state government.

Measuring Borrowing Autonomy

Taking into account all the elements discussed above except the guarantees, we built an index of borrowing autonomy at the subnational government level for the countries in Latin America and the Caribbean. Obviously, those countries where subnational governments cannot borrow have 0 autonomy. Of the other criteria, higher weights were given to the issues of bank ownership by subnational governments and to government authorization. The values of the index (which has a maximum of 4 points) for each of the countries are presented in Figure 3.15.\(^{37}\)

Notice that Argentina, Brazil and Colombia, the three countries where subnational governments are most heavily indebted, also have the highest degree of borrowing autonomy.

DECENTRALIZATION AND FISCAL PERFORMANCE

As we have described the extent of decentralization and the nature of intergovernmental relations in the region, the question of the possible effects on fiscal performance has loomed in the background. We stressed that while decentralization can improve on problems of aggregation and agency, it has the potential to aggravate problems of coordination, especially when the central government finds it hard to commit not to come to the rescue of subnational governments in trouble. These coordination problems associated with decentralization may be more serious when there are large vertical imbalances combined with a system of intergovernmental transfers characterized by discretionality, or with a substantial degree of borrowing autonomy of the subnational governments. This section discusses the impact of the extent and structure of decentralization on government size.\(^{38}\)

Decentralization and the Size of Government

We use data on the degree of decentralization, as well as on vertical imbalance, borrowing autonomy, and the degree of discretionality in the transfer system to explore whether these variables have an impact on the size of government. In discussing the possible impact of decentralization on government size throughout this chapter, our main focus has been the extent to which problems of coordination, namely, the commons problem, are likely to exist. However, there are other channels—reviewed in Box 3.2—through which decentralization may affect government size.

What impact would we expect our institutional variables to have on the size of government? Let us begin with decentralization, defined as the percentage of government expenditures executed by the subnational level for the countries in Latin America and the Caribbean. Obviously, those countries where subnational governments cannot borrow have 0 autonomy. Of the other criteria, higher weights were given to the issues of bank ownership by subnational governments and to government authorization. The values of the index (which has a maximum of 4 points) for each of the countries are presented in Figure 3.15.\(^{37}\)

Notice that Argentina, Brazil and Colombia, the three countries where subnational governments are most heavily indebted, also have the highest degree of borrowing autonomy.

\(^{37}\) A detailed explanation of the formula used to construct the index is included in Appendix A.

\(^{38}\) We did not find an association between decentralization and other fiscal performance indicators, such as deficits, debt and procyclicality.
clear-cut. The larger the degree of vertical imbalance, the greater the potential for coordination problems, since a larger vertical imbalance increases the incongruence between those who benefit and those who pay for government programs. However, we do not expect this effect to be the same for countries with different degrees of decentralization. For example, large differences in government size would not be expected in a country where 95 percent of government spending corresponds to the central government, regardless of whether the remaining 5 percent spent at the local level were financed with own revenues or through central government transfers. In contrast, vertical imbalance is expected to have a larger impact where the extent of expenditure decentralization is larger. For this reason, rather than exploring the effects of vertical imbalance alone, we will instead consider the product of decentralization and vertical imbalance as an explanatory variable. This product represents the extent to which there are government programs characterized by local benefits financed out of national taxation.

Finally, we also want to capture in some way the effect of having hard or soft budget constraints at the subnational level. Following the arguments in Eichengreen and Von Hagen (1996), we use the product of vertical imbalance and borrowing autonomy as an indicator of soft budget constraints, or, more specifically, as a measure of difficulty for the government to commit not to bail out subnational governments. The product of vertical imbalance and borrowing autonomy will likely have a positive impact on government size, and this impact will be greater, the larger the degree of decentralization. For this reason, we will explore the impact of the product of these three variables—decentralization, vertical imbalance and borrowing autonomy—on government size. As an alternative, we use the degree of discretionality in the transfer system in place of borrowing autonomy to capture the stringency of the budget constraints. One drawback of discretionality is that data is available for a smaller set of countries.

The results of the formal statistical analysis are included in Appendix B. The most important findings can be summarized as follows:

Decentralization has a positive effect on the size of government: In our sample of Latin American and OECD countries, the degree of expenditure decentralization has a positive effect on the size of government. Figure 3.16 presents the association between these two variables. The vertical axis represents the size of government left to be explained after other determinants, such as the proportion of the population over 65 years of age, the level of government debt, and openness. If the difference between two countries in terms of the degree of decentralization is 20 percentage points, the more decentralized one will have, on average, a government sector larger by four percentage points of GDP. If GDP per capita was used as a control variable instead of the age variable, GDP per capita was not included as a control in our preferred regressions because it did not have a significant impact on government size when used in a regression together with the age variable, which in turn remained significant.
Political participation: If decentralization, by improving on the aggregation and agency problems, produces a better match between the preferences of the population and the fiscal bundle they obtain, should this lead to smaller or larger governments? Oates (1985) suggests that it may lead to larger governments, as people will entrust the government with more tax revenues, knowing that these revenues are going to be spent in a way that closely matches their preferences. This intuition contrasts with some evidence showing that more political participation is associated with smaller government. Pommerhene and Schneider (1983), for example, explore the impact of direct democracy on government size for a sample of Swiss cantons. Cantons that practice direct democracy, as opposed to representative democracy, have smaller government, other things equal. Is Oates’ intuition incompatible with this evidence? Not necessarily. Let us assume that, as in the Brennan and Buchanan view, public officials have a preference for larger government. In this case, increased participation could have two different effects. On one hand, it would increase the control of the population over the actions of the public officials, reducing the agency problem. This ensures that the actual size of the government will be closer to the population’s desired size. But at the same time, it may increase the population’s desired size. What this means is that, under a social planner, decentralization would, through this channel, lead to larger governments. However, if one assumes that public officials act on their self-interest, this increase in desired size could be accompanied by a decrease in actual size if, in jurisdictions where participation is lacking, governments are much larger than people want them to be.

Economies of scale: If economies of scale in the provision of public services are substantial, decentralization may result in larger governments.

The flypaper effect: Governments that receive transfers tend to spend more out of these transfers than they would out of a similar increase in the income of the population. In other words, if the intergovernmental transfer were directly sent to the citizens of a jurisdiction rather than to the government, spending would increase by a much smaller amount. This strong empirical regularity, which has been called the “flypaper effect” because it poses that money tends to stick where it hits, does not have strong theoretical foundations, so much so that it has appeared in the “Anomalies” section of the Journal of Economic Perspectives (Hines and Thaler, 1995). For our purposes, the implication of this effect is that decentralization could lead to larger governments, provided an important part of spending by the subnational governments was financed through transfers.

Box 3.2. Channels through which Decentralization Can Impact the Size of Government

Government competition: This channel is associated with the monolithic view of government, as posed by Brennan and Buchanan (1980). The impact of decentralization on government size occurs by reducing the importance of the agency problem. The government is characterized as a leviathan that seeks to maximize revenues. This is facilitated under centralization, since the government has monopoly power over the tax base. Under decentralization, mobility across jurisdictional borders assures some degree of competition among governments to lure taxpayers into their territory by providing a more attractive fiscal bundle. This competition imposes constraints on the fiscal appetite of the governments. As a result, the size of government should decline with decentralization. How does the Brennan and Buchanan story view tax sharing by different levels of government? As collusion among the different levels of government? The original test of this theory was by Oates (1985), who explored the relationship between decentralization and government size for a cross-section sample of 43 countries, as well as for the U.S. states, finding no support for the leviathan hypothesis. Although some studies find evidence in favor of the hypothesis, those that are based on a cross-section of countries generally fail to find such support (Oates, 1994, p. 148).

The problem of the commons: The effect of decentralization on size through the commons problem channel is not straightforward. It will depend on the way decentralization is structured. Let us assume a system where all government programs with local benefits are provided at the local level, while those that have national benefits (such as defense) are provided by the national government. Let us further assume that all local programs are financed through local benefit taxes in such a way that there is no need for intergovernmental transfers. In this case, decentralization should help control the problem of the commons, since it substantially reduces the degree to which programs with geographically concentrated benefits will be financed by the country as a whole (Oates, 1989). To the extent that a commons problem remains, it will be within each jurisdiction, and not across jurisdictions. If jurisdictions are sufficiently small, in this ideal world, all the cost of government programs will be borne
by those who benefit from them, so the socially optimal quantity of those programs would be demanded.

Now let us assume that, due to the difficulties of finding good tax bases for subnational governments, revenues remain centralized to a large degree, while expenditures are decentralized exactly as described above. In this case, the commons problem might become more serious, since the correspondence between those who benefit and those who pay is broken. The degree to which the commons problem becomes serious will depend to some extent on the design of intergovernmental transfers. If transfers are automatic, responding to a certain predetermined formula based on a set of criteria, the problem only occurs at the point in time when the formula was determined, since the same factors that result in overspending when the budget is discussed in congress can result in transfers that are larger than is socially optimal when congress decides on them. If transfers are discretionary, the situation may become worse if the transfers tend to be allocated to those jurisdictions that are in financial trouble. If this is the case, subnational governments will have incentives to overspend, and then ask the central government for additional funds. If the cost of getting out of financial trouble is much higher for the subnational government than for the central government (which might occur due to the wider tax base of the national government), the subnational government may expect to get away with this.

Even larger problems may be introduced by a large degree of borrowing autonomy at the subnational levels of government. In this case, the possibility of overspending before additional transfers are approved is facilitated by the greater access to borrowing. Subnational governments can go ahead and build a bridge or a hospital, and then ask the central level for additional funds once the project has been executed. Eichengreen and Von Hagen (1996) have suggested that this risk diminishes the greater the degree of control by the subnational governments of their revenue sources. Their reasoning is that, if these governments have substantial control over their revenue sources, i.e., a low degree of vertical fiscal imbalance, they can be expected to shoulder themselves the cost of getting out of financial trouble. In this case, the central government will find it easier to commit to say no to a bailout request, thus reducing or eliminating the moral hazard problem.

Figure 3.18 shows the association between government size and the interaction between decentralization, vertical imbalance and borrowing autonomy. As expected, for Latin American countries, larger values of this interaction variable are associated with larger government. In contrast, the effects are not significant in the case of the OECD countries. If we include in the analysis both decentralization and the triple interaction, decentralization loses significance. Results are similar when discre- tionality in transfers is used instead of borrowing autonomy as an indicator of soft budget constraints, for the case of Latin American countries.

Note: The residuals are calculated from the regression of government expenditures over control variables: debt at the beginning of the period, population over 65 years old, and openness.

40 Argentina is an outlier in this regression, and was excluded from the sample. A possible interpretation for this is that the 1991 Convertibility law increased the commitment of the government not to bail out provinces in financial trouble. In fact, the central government extended extraordinary transfers to provincial governments in 1989 and 1990, but has not done so since 1991. In this case, then, the product of vertical imbalance and borrowing autonomy may be underestimating the stringency of the budget constraint. 41 These results are weaker when GDP per capita is used as a control variable in place of the age variable.
cal relations structured in a way that promotes fiscal responsibility matter even more.

These results suggest that coordination problems are in fact something with which decentralized countries should be concerned. The results highlight the importance of exploiting as much as possible the capacity of state and local governments to efficiently generate revenues to reduce the degree of vertical imbalance, and, more generally, of organizing intergovernmental relations in a way that promotes responsible fiscal behavior on the part of the subnational governments.

TOWARDS AN AGENDA FOR FiscALLY SOUND DECENTRALIZATION

Decentralization has the potential to improve on the aggregation problem by bringing decisions closer to voter preferences. It can also improve on the agency problem by making governments more accountable. However, by creating the possibility of interaction between different jurisdictions, decentralization may give rise to potential coordination problems that may manifest themselves in soft budget constraints.

We have found that decentralized governments tend to be larger. This result is consistent with several interpretations. One is that because local governments can be trusted to deliver public goods more in line with voter preferences, they are given more resources to manage. Hence, this result per se is no indication of inefficiency. However, we have also found that the form that decentralization takes also affects size. In particular, arrangements that are more likely to lead to soft budget constraints seem to be associated with larger size. This evidence is a clearer indication of political distortions at work.

To achieve a well functioning system, it is important that the decentralization process be organized in such a way that it can deliver the goods (a better match between voter preferences and government actions, and improved accountability) without falling into the pitfalls of coordination failures. Achieving this involves improving democratic institutions and hardening budget constraints.

Improve Democracies

Local democracy functions well if it makes public decisions follow social preferences and keeps politicians and bureaucrats honest and accountable. This requires civic participation, clear rules for the financing of elections and political parties, a free, fair and competitive press, and a well functioning judiciary. Otherwise, lobby groups might find that it is both possible and in fact cheaper to exert undue influence on local governments than it is on national governments, media moguls may become king-makers, important areas of public life may escape social scrutiny, and the perception of impunity may have very corrosive effects. Well functioning political systems are a must for well functioning governments at any level.

Harden Budget Constraints on Subnational Governments

This chapter has stressed that decentralization is a complex issue that involves a variety of dimensions, including assignment among levels of government of the power to tax, responsibilities for government programs, the ability to borrow, and the nature of intergovernmental transfers. The failure to organize these interrelated dimensions in a consistent way may lead to soft budget constraints on the subnational governments. Addressing the problem of soft budget constraints, therefore, requires a consistent design in all these dimensions.

Efficiently Limit Vertical Imbalance

A large degree of vertical imbalance generates incentive problems in resource allocation at the local level because spending initiatives need not be put through the test of having local citizens be willing to pay for them. However, vertical imbalances are inevitable because many tax instruments are more efficiently managed in a centralized fashion. Revenue centralization allows the achievement of economies of scale in collection and reduces the distortions and inequities associated with assigning mobile or unevenly distributed tax bases to the state and local governments. However, every effort should be made in decentralized countries to reduce the extent of vertical imbalance by assigning to state and local governments those revenue sources they can efficiently exploit, and by ensuring that those revenue sources are not underutilized.

User charges should be established whenever possible, and the charge should be enough to cover the cost of providing the service. Property and vehicle taxes should be assigned to lower level governments, and valuations should reflect market realities. In some cases, fuel taxes and supplementary local income taxes could be assigned to lower level governments as well in order to help reduce the degree of vertical imbalance. Strengthening tax administrations at the state and local government level can help reduce this problem as well.
Adopt Stabilizing and Nondiscretionary Transfer Rules

Even after the best efforts are made to increase the tax capacity of local governments, vertical imbalances will remain and the decentralization process will need to define a system of transfers. Two important design principles to follow are nondiscretionality and stabilization. Discretionary transfers create incentives for subnational governments to overspend and force additional transfers. Discretionality is reduced if there are clearly established criteria, not subject to manipulation, that define both the total amount of the transfer and its distribution.

While it is common for transfer rules to be based on a share of the revenues collected either from specific taxes or from total revenues, there are good reasons to avoid these formulas. First, they lead to transfers that are unstable and procyclical as their source. This puts unnecessary strain on all state and local political systems that are as likely to have enormous problems dealing with fluctuations as does the national government. Hence, it is best to have the central government provide stabilization services instead of imposing this burden on each subnational government. Second, rules based on shares of revenue make it harder for the central government to close fiscal gaps, because they allow government spending at the subnational levels to increase whenever central government revenues rise.

Transfers based on the principle of notional cost reimbursements can be particularly effective for financing social services. If they are distributed according to a capitation formula, i.e., a fixed amount of money per person served, they define not only a clear rule but also an important price signal. It is a way to implement the principle that budgetary resources should follow outcomes, not inputs. The Chilean education example is a case in point. Moreover, these transfers do not have the procyclical attributes of the ones discussed above, and thus provide a more stable revenue stream for subnational governments.

Clarify Roles by Avoiding Concurrent Responsibilities

Budget constraints are also softened by the lack of a clear division of responsibilities between the central and subnational governments. In many countries, the decentralization process has involved not an outright transfer of functions and accountability but instead a shared arrangement where two or more levels of government end up providing the same service, be it primary education, housing or road maintenance. Through this mechanism, local governments can extract resources from the central government by choosing to underprovide in areas of joint responsibility and force the central government into additional spending in their jurisdictions. For this reason, a clear separation of roles and responsibilities can permit better control of central government budgets, better planning and provision of services, and a more transparent use of subnational resources.

Set Tight Limits on Subnational Borrowing Authority

Another soft budget constraint is the ability of subnational governments to overborrow in expectation of a federal government or central bank bailout. In this respect, it is important to consider the following options.

Some governments, such as Chile, have opted for prohibiting autonomous borrowing. This has the advantage of limiting coordination problems but at the cost of severely restricting the investment capacity of state and local governments, unless funds are made available in some fashion. Other countries have opted for more autonomy. In this case, it is important that the budget institutions at the subnational level be properly designed. One critical element is the existence of constraints on the deficit. We argued in Chapter 2 that, for the case of national governments, fixed deficit provisions such as balanced budget rules are either inefficient or unworkable, given the amount of volatility common in Latin America. This would still be true at the subnational level if the central government did not provide a stabilized flow of transfers. However, as we have suggested, if such stabilization mechanisms are put in place, then tight limits on borrowing may be an important component of subnational budget institutions. In fact, in the United States, 49 of 50 states have freely adopted some form of a balanced budget rule.

Subnational governments should either not own banks, or these institutions should be restricted from lending directly or indirectly to their owners. Otherwise, governments might be able to circumvent their own budget institutions and force the central bank into providing a bailout, as has happened all too often.

Also, clear limits should be put on the ability of subnational governments to give their claim to future transfers in guarantees for new loans. While such an arrange-
ment may reduce the cost of finance by transferring the risk to the national government, it limits the ability of the market to signal the unsustainability of the fiscal position until the guarantee is exhausted. By then, the government may be excessively overindebted.

Finally, a proper framework should be put in place to allow for project finance. Subnational governments should be able to pledge the cash flow of a development project so as to secure finance. However, clear default rules should be enacted so as to clarify property rights and restrict the possibility of bailouts.

We started this study noting that Latin America is becoming more democratic and more decentralized. At the same time, fiscal performance has been improving and economic reforms advancing at a dazzling pace in many countries. This achievement is quite impressive given the difficulties in resigning in some of the pitfalls of collective choice. By comparing the performance within the region and contrasting its features with those of the industrial economies, we were able to identify some of the ingredients for success. Although important challenges remain, the task ahead does not look as arduous as the job already done. Institutions can be developed and improved to assure that the goal of democratic participation goes hand in hand with the goals of sound fiscal performance, economic stability and growth.
REFERENCES


Part THREE

Fiscal Stability with Democracy and Decentralization
Latin America and the Caribbean are becoming more democratic. Among the borrowing members of the Inter-American Development Bank, only 13 countries had democratic governments in 1980. Today, all 26 countries are not only democracies but also are becoming more decentralized. While only three countries in the region elected their mayors directly in 1980, 17 countries today use this form of local representation, while in six others mayors are appointed by elected municipal councils (see Figure 1).

Political decentralization has been accompanied by an increasingly decentralized fiscal structure. The share of state and local governments in total government spending increased from 15.6 percent in 1985 to almost 20 percent a decade later. This process of decentralization has transferred greater responsibilities to subnational governments in providing services such as education, health, housing, roads and water.

The move towards deeper decentralized democracy has coincided with stabilization of the region’s economies and the adoption of structural reforms reviewed in Part II of this Report. This is perhaps surprising because much has been written suggesting that stabilization and structural reforms are easier to achieve under authoritarian governments, since these regimes do not need the same degree of social consent required in a democracy. The Latin American experience is in sharp contrast with this view.

Moreover, much economic theory has also suggested that democracy may have an inherent fiscal deficit bias that is aggravated under more federal, decentralized structures. Therefore, it is also important to note that as decentralized democracy has deepened in Latin America, deficits have come down: after reaching 9 percent of GDP in 1982-83, they have averaged 2 percent in the 1990s. In fact, as Figure 1 also shows, the number of countries with deficits under 3 percent of GDP went from five in 1982 to 18 in 1996.

It appears, then, that much can be learned about how Latin America has achieved sound fiscal outcomes while deepening democracy. This section extracts the lessons that can be derived from this broadly positive experience. It focuses on organization of the fiscal decisionmaking process, because the evidence suggests that this process is critical to assure that the advantages of democratic participation in determining social priorities and ensuring government accountability are not wiped out by the perils of collective choice that can cause inefficient social outcomes.

One such example is the so-called "commons problem," which is particularly relevant for fiscal systems. To get an intuitive feeling for the nature of the problem, imagine yourself in a restaurant that offers two dishes: chicken for $10 and lobster for $50. You prefer chicken because you find the $40 price difference quite steep. Think now of what happens if you go with nine friends and expect to share the bill. If all the others ask for chicken, then you have the choice of ordering chicken and paying $10 or asking for lobster and paying only $14 (that is, \(9 \times 10 + 50\) / 10). Hence you are tempted to order lobster. But what if all the others plan to order lobster? Not only would lobster then cost you $50, but the chicken would cost $46 (that is, \(9 \times 50 + 10\) / 10). So in this latter scenario as well, you might as well order lobster. Hence, no matter what the others plan to do, you will ask for lobster if you go in a group, even though you would have ordered chicken had you gone on your own.

The problem highlighted in this example is caused by the fact that people choose independently but pay collectively. Such interaction distorts collective choices and makes them inefficient from the point of view of individual participants. The fiscal decisionmaking process is similar in that different constituencies decide on spending initiatives that are paid out of a common pool of tax resources. This coordination problem, if unchecked by the institutional framework, can lead to excessive use of the common resource, i.e., to excessive deficits and debts. The problem is potentially even more serious with decentralization, since it can enable one jurisdiction to shift the tax burden onto other localities.

This example is just one of the perils of collective choice. It gives hints as to how to change the decision-
making process in order to avoid pitfalls. But it is not the only problem. Other problems discussed include:

- Achieving adequate political representation of individual electoral preferences (aggregation problem);
- The incentives of politicians and bureaucrats to follow their own interests and not those of the electors (agency problem);
- The difficulty in making credible commitments about future policies (credibility problem).

In this light, Latin America’s fiscal achievements are so much more impressive. They show that democracies can be made to work well. Nevertheless, these positive trends occur in the context of old and new unsolved problems, as discussed in Chapter 1. First, the region still has a bias towards deficits that has not been contained with equal success in all countries. Second, fiscal accounts remain vulnerable to the volatility that characterizes Latin American economies, which implies that the political system must deliver more wrenching adjustments in a shorter span of time than industrial democracies.

Third, fiscal policies have not played the stabilizing, anticyclical role that economic theory suggests they should and that characterizes the experience of most industrial democracies. Instead, fiscal policy has tended to react to the large shocks it must absorb mainly in a procyclical manner, i.e., it has been expansionary in booms and especially contractionary in downturns, thus aggravating rather than cushioning the underlying volatility.

There is also evidence that many Latin American governments suffer from electoral budget cycles. Budget deficits tend to grow in the run-up to the election, forcing costly adjustments in the following year.

Some of these features, like the bias towards deficits, may reflect the same political distortions that have been well documented for the industrial democracies, with similar negative effects on their fiscal outcomes. Others reflect specific interactions between these political distortions and the characteristics of the Latin American economic context, especially greater economic volatility and a weaker tax base. In particular, Chapter 1 argues that countries in the region may be trapped in a vicious circle: their initially higher volatility creates the need for larger and more frequent fiscal adjustments. Doubts about the ability of the political system to deliver those adjustments may cause access to financial markets to disappear in bad times. Lack of financial resources enforces a procyclical fiscal reaction just when a more stabilizing response would have been most valuable. The procyclical response then accentuates the underlying macroeconomic volatility.

Fiscal performance is affected by interaction between problems in the decisionmaking process and an economic environment that is less forgiving. Chapter 1 analyzes the economic environment and fiscal performance, then looks at the decisionmaking process. Chapter 2 focuses on the way the fiscal decisionmaking process is organized at the national level, while Chapter 3 studies fiscal decentralization.

Chapter 2 looks specifically at electoral systems and budget institutions. The former are important because they affect how individual preferences of voters are aggregated into social choices and political majorities. The chapter finds evidence that systems that rely more on proportional representation, as opposed to first-past-the-post systems, tend to generate a greater number of effective political parties, less congressional support for the government, and greater difficulty in addressing issues of deficit bias and procyclicality. They also tend to lead to larger governments, which may be explained as a consequence of the fact that proportional representation systems must include the preferences of a larger share of voters.

Chapter 2 also discusses budgetary institutions, i.e., the set of rules whereby budgets are drafted, approved and carried out. These rules are important because they may affect the way in which coordination, credibility and agency problems are dealt with. For example, spending ministers, the executive branch’s budget authority, legislators, state enterprises and the public at large must interact with one another in the budget process. If the process is not well structured, as in the chicken and lobster problem, it may lead to excessive spending, deficits and debts, and inadequate management of both good times and bad, as the political process may not react appropriately to changing circumstances. Countries with transparent budget institutions that put explicit limits on the deficit and provide hierarchical or agenda-setting powers in the budget process for the finance minister and the executive vis-à-vis congress can put an effective check on the bias towards deficits and debts. This shows that strong budget institutions can overcome the fiscal consequences of proportional representation, indicating that countries need not renounce this type of electoral system in order to achieve fiscal control.

However, existing institutions have yet to deal effectively with the problems of procyclicality and electoral budget cycles. The chapter ends with a set of ideas on the types of reform that could be effective on these fronts.

Chapter 3 looks at the challenges of decentralization. It reviews the way subnational government officials
are elected and studies the distribution of the power to tax, spend and borrow in the different countries, together with the vertical financial relations and imbalances between the different levels of government. It studies the potential benefits that political decentralization can provide in terms of a better match between citizens’ preferences and public priorities, and the effect that elections may have in disciplining public officials. It also explores the risk of coordination failures emerging from the incentives that one jurisdiction has to shift the burden onto taxpayers from other jurisdictions. These incentives tend to be created when subnational governments face soft budget constraints that arise when they can force the federal government to bail them out of financial troubles.

Budget constraints can be ameliorated by:

- Limiting vertical imbalances by assigning to subnational governments those taxes that can be efficiently imposed and collected at that level;
- Reducing the discretionality and instability of government transfers;
- Setting mandatory constraints on borrowing.

Chapter 3 also includes a discussion on how to implement these strategies.

Latin America has opted for democratic participation and macroeconomic stability. The challenge is to learn about the institutional arrangements that can best deliver on both fronts.
Democratic forms of decisionmaking possess crucial advantages over the alternatives; they provide legitimacy, mechanisms for the revelation of the preferences of the citizenry, and ways to discipline unresponsive governments. However, as we illustrated very briefly in the Introduction, and will describe in considerably more detail in Chapter 2, democratic decisionmaking about public spending and taxation involves a process of collective choice that carries with it potential pitfalls. These provide some reason to be concerned that democratic politics will all too often deliver expensive lobster, when chicken would have been the more appropriate choice. Nevertheless, as Latin America has become more democratic and fiscal decisionmaking more decentralized, fiscal deficits have declined dramatically. This demonstrates that the problems that may be posed by the political decisionmaking process can be overcome. It does not, however, mean that they have all been solved, or that adaptations could not be made to the institutional context that surrounds fiscal decisionmaking to promote even better fiscal outcomes in the future.

In this first chapter we set the stage for the analysis in subsequent chapters by laying out some stylized facts about fiscal outcomes in Latin America. The objective is in part merely descriptive, attempting to answer some of the following questions: What is distinctive about the Latin American state, and about the economic environment in which it exists? In what dimensions are Latin American governments big, and in what dimensions are they small? How do governments of the region spend the resources that they obtain from their citizenry, and how do they finance themselves?

These descriptions also serve a diagnostic purpose, highlighting the special challenges for the management of fiscal policy posed by the structure of the Latin American public sector and the characteristics of its macroeconomic environment, and identifying areas where fiscal policy may not have met these challenges as effectively as possible. Here we focus on three main diagnostics: Have Latin American governments exhibited a deficit bias, thus leaving their economies with larger public debts than might be optimal? How well has fiscal policy been managed in a cyclical context; that is, has fiscal policy leaned against the wind of economic shocks and fluctuations, or has it instead amplified them? And finally, have fiscal outcomes displayed an important tendency to be influenced by political pressures associated with elections?

Throughout the analysis we use industrial country experience as a benchmark by which to evaluate Latin America. This is for a number of reasons, the most important of which is that the industrial economies share with Latin American democracies similar political institutions. The comparison with the industrial countries is also valuable because their experience has inspired the theories about fiscal policy that are available to guide policymakers in the region.

While Latin America shares similar political institutions and decisionmaking structures with the industrial economies, the economic context within which Latin American institutions must operate is very different, and is in fact substantially more demanding. A highly volatile macroeconomic environment generates large fluctuations in fiscal revenue, and frequently creates the need for very large fiscal adjustments, while relatively small
budgets reduce the fiscal room for maneuver. We find, moreover, that the volatility of fiscal outcomes is more than just a passive response to macroeconomic shocks, for in Latin America, and in contrast to the industrial economies, fiscal outcomes have displayed an important procyclicality, with public spending expanding in economic good times and collapsing in bad times, thus amplifying rather than absorbing shocks to the economy. Finally, and again in contrast with the industrial economies, we find evidence of a large electorally-motivated fiscal cycle, suggesting that politically-motivated fluctuations in fiscal policy have been a problem in at least some countries.

Thus, while Latin American democracies share similar political institutions with the industrial economies, these institutions operate in a very different and in many ways less forgiving context. This may give rise to problems in fiscal performance such as the ones that we identify here. But as recent Latin American experience has shown, these problems can be overcome with appropriate institutional adaptations to the more complex environment. Subsequent chapters of this Report build upon the stylized facts presented here to deepen our understanding of the interaction between the macroeconomic environment, institutions and fiscal performance, providing insights into the kinds of institutional adaptations that can promote even more effective fiscal policymaking in the future.

SIZE AND STRUCTURE OF THE LATIN AMERICAN STATE

Smaller Governments

The public sector of the typical Latin American country spends roughly 25 percent of GDP, approximately half of the almost 50 percent of GDP spent by the typical industrial country government.¹

The most notable difference between Latin America and the industrial countries is in the size of spending on social security systems, where industrial country spending of roughly 15 percent of GDP dwarfs Latin America’s average of 2.5 percent. Latin America also spends much less than the industrial economies on “core” government functions, defined here as all areas other than interest, social security, and public investment. The term “core” is used primarily for want of a more descriptive term for the wide variety of functions financed by public spending on items other than interest, social security and public investment. The term should not be interpreted to imply that these core activities are in some way more fundamental or basic than the others.) Spending on these core functions amounts to roughly 25 percent of GDP in the industrial economies, but only 15 percent in Latin America.

Latin American governments are not small in every dimension, however. Most notably, they typically spend much more on public investment—over 6 percent of GDP compared with less than 2 percent in the industrial economies.

Nor are all governments of the region equally small—there is enormous variation in the size of Latin American governments, especially among the smaller and poorer countries of the region. Public spending in Barbados amounts to 35 percent of GDP, while spending in Bolivia, Trinidad and Tobago, Uruguay, Honduras, Jamaica, Brazil and Venezuela has averaged 30 percent of GDP or more during the 1990s.

At the other extreme, public sector spending in Haiti and Guatemala amounts to only 12 percent of GDP, while spending in the Dominican Republic, El Salvador, Paraguay and Peru has averaged well under 20 percent.

Differences in government size are partly attributable to differences in per capita income. Around the world, wealthier countries have tended to have large governments, and Latin America is no exception. The Latin American economies with the lowest per capita income spent, on average, roughly 20 percent of GDP, while the

¹ These figures understate public sector spending to some extent because they exclude from total spending current (noncapital) spending by public enterprises. Figure 1.6 includes both current and capital spending of public enterprises, but for only 13 of the region’s larger economies.
richest countries of the region spent an average of nearly 30 percent.

However, income explains only part of the variation in government size in the region. As Figure 1.4 illustrates, while there is a tendency for governments to be larger in wealthier countries, there are a number of low-income economies, most notably Belize, Guyana, Nicaragua and Suriname, that are much larger than might be expected on the basis of their relatively low income.

By the same token, there are other economies, notably the Bahamas and to a lesser extent Chile, where the public sector is substantially smaller than would be expected on the basis of their relatively high income levels.

We will explore in more detail below how the relationship between income and government spending differs greatly depending on the type of government activity.

**Governments Have Become Smaller**

In sharp contrast with the industrial economies, where public spending has generally risen throughout recent decades, government spending in Latin America declined as a share of national income during the 1980s. Despite some recovery of public spending in the first half of the 1990s, government spending in Latin America remains below the peak attained during the early 1980s.

The decline in spending by nonfinancial public enterprises has been even more dramatic, reflecting restructuring and privatizations that have taken place as part of the region’s reforms during the past decade. (These reforms are discussed in more detail in Part II of this Report.)

The result is that total spending by the nonfinancial public sector, which includes spending by all levels of government and by nonfinancial public enterprises, now stands at nearly 10 percentage points lower than in the early 1980s.

**Small Governments Reflect Limited Fiscal Capacity**

The small size of Latin American governments reflects the fact that these governments have a much more limited capacity to raise revenue to finance public spending than do industrial country governments. This limited fiscal capacity stems from the region’s large informal sectors, which largely escape direct taxation, as well as a more limited bureaucratic capacity to collect taxes. As a result,
to finance even the relatively small states that exist in the region, governments have had to impose relatively high rates of tax (in many cases comparable to those observed in the industrial economies) on those businesses and individuals who do pay taxes. 2

This means that many governments of the region have a relatively limited scope to increase revenue simply by adjusting tax rates upward, which could prove both politically and economically counterproductive. This point has important implications for the management of the large fiscal shocks that affect the region.

Revenue Structures Pose Challenges for Fiscal Policy Management

Table 1.1 summarizes some key facts regarding the region’s fiscal revenue and places them in an international comparative perspective. Several differences between Latin American and industrial country revenue structures clearly emerge. First, governments in Latin America are substantially more reliant upon nontax revenue sources than are industrial country governments, reflecting the importance of natural resource rents and income from state-owned enterprises in total revenue.

Latin American governments are also more reliant upon indirect taxes (most notably trade taxes), and substantially less reliant upon direct taxes (taxes on income and contributions to the social security system) than the industrial economies.

This revenue structure poses important challenges for the management of fiscal policy in Latin America. Because the underlying bases of nontax and indirect taxes are relatively volatile, those taxes are particularly unstable revenue sources. The structure of fiscal revenue thus exposes national budgets to larger shocks than they would face with a revenue structure more like that of the industrial economies, requiring the political system to cope with the need to bring about frequent and large fiscal adjustments. Chapter 2 of this section describes some of the factors surrounding the democratic decisionmaking process that may impede timely fiscal adjustment, as well as institutional structures that can improve the capacity for democratic decisionmaking to cope with the required fiscal adjustments.

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2 See Part II of this Report for a more detailed description of the tax systems of Latin American countries and how they have evolved in response to the reform programs of the past decade.
Latin American Governments Spend Differently than Industrial Countries

As we noted above, the mix of activities carried out by Latin American governments differs dramatically enough from those of the industrial economies that a meaningful description of the size of government requires an examination of several dimensions.

As a share of GDP, Latin American governments tend to spend much less on social security systems, about as much on interest, substantially more on public investment, and less on core functions, which we define as all activities other than these three.

What Accounts for Government Size?

We have seen that governments of the region vary widely in size and that, while they tend to be small in some dimensions, they are large in others. So, an illuminating answer to the question of whether Latin American governments are large or small needs to address the questions of which governments and in which dimensions of government? The following section examines the size and structure of public spending in Latin America in order to flesh out the institutional context and highlight some political forces that appear to underlie fiscal outcomes in the region.

Small Social Security Systems

The single largest difference between Latin American and industrial country budgets is in the size of social security systems. Where the industrial countries spend over 16 percent of GDP, and over a third of public sector spending, Latin America spends only 2.5 percent, or less than 10 percent of total spending. This primarily reflects differences in demography. The industrial countries passed the demographic transition well before Latin America and tend to have longer life expectancies, and therefore have a much higher proportion of elderly in their population. In the industrial economies, the share of the population older than 65 is nearly 14 percent of the total, while it is less than 5 percent in Latin America.

This difference in age structure explains most of the difference between Latin American spending on social security systems and that of the industrial economies, which accounts for roughly 12 of the 14 percentage point difference in social security spending. The remaining 2 percentage points are attributable to the relative newness of most social security systems in the region, and perhaps to fiscal pressures that have made it difficult for governments to fund the systems as generously as industrial countries have done.

Figure 1.7 suggests that the age structure of the population also explains most of the differences in social security spending within the region, as well as the regional average. Argentina and Uruguay, for example, are the countries with the highest social security budgets, and they also have a much higher share of elderly in the overall population. After accounting for the impact of age on social security payments, Barbados, Jamaica and Trinidad and Tobago have relatively small social security systems.
while in Brazil, Chile, Panama and Uruguay, social security systems are large.

The relationship between age structure and social security spending carries an important policy message for Latin American fiscal policymakers over the longer term. The analysis suggests that as Latin American age structures begin to resemble those of the industrial economies, pressures for spending on social security spending will rise toward industrial country levels. This poses a potential danger for governments of the region because, while demographic factors may push the demand for social security spending to industrial country levels, the fiscal capacity of the Latin American states is likely to remain well below that of the industrial countries over the medium term. Pressures from growing social security systems could thus become a destabilizing factor over the medium and longer term unless systems are reformed and fiscal capacity increased.

**High Public Investment**

While overall spending is lower, public investment is much higher in Latin America than in the industrial economies. Even after the privatizing and downsizing of the 1980s and 1990s, capital spending by the typical Latin American public sector amounted to 6.6 percent of GDP during the 1990s, compared with less than 2 percent in the industrial economies. But there are enormous variations across countries, with public investment at 3 percent of GDP or less in Costa Rica, Guatemala, Haiti, Panama and Suriname, and exceeding 12 percent in Belize, Guyana and Venezuela.

Public investment levels follow some patterns that provide clues as to why public investment has been relatively high in the region and shed light on the underlying political and economic forces that drive it. First, public investment is negatively correlated with income per capita; poorer countries in the region tend to have substantially higher rates of public investment than do wealthier economies. Public investment is also very highly correlated with the share of primary exports in GDP, reflecting the fact that natural resource industries such as oil or minerals are generally carried out by public enterprises.

There are of course many factors that explain the importance of public investment, including in some cases ideological or historical influences that lie outside the scope of this chapter. But the patterns seen here also lend support to the idea, discussed in more detail in Chapter 2, that public investment has been used to compensate for the absence of a credible policy framework. The problem arises because private investors need a degree of confidence that the policy framework will remain acceptable over the medium and long run. In the absence of an appropriate institutional framework, this is hard to achieve, if only because the government is likely to change repeatedly over the investor’s time horizon. The authorities in charge today have no means of assuring that future policymakers will respect their commitments. If the political system is unable to overcome this problem, private investment and domestic income are likely to be low, and the government is likely to step in and provide some of the missing investment.

Some sectors are more affected by this problem than others. The problem is particularly acute in infrastructure investments because they often involve natural monopolies and therefore public regulation of prices. Once the infrastructure investments have been made, the regulator may perceive a strong incentive to set lower prices than the investor had been led to expect, benefiting the consuming public at the expense of the investor. Anticipating this result, private investors may refuse to invest, and the public sector will step in. A similar problem arises in natural resource based industries, in which governments and investors must negotiate the allocation of resource rents. But once the investments have been made, governments may wish to renegotiate the allocation of natural resource rents at the expense of the investor. The large public presence in infrastructure and natural resource based investments can thus be interpreted as an indication that the problem of making credible long-term commitments is an important influence on the size and structure of Latin American states, and on fiscal outcomes more generally.
Interest Payments Reflect High Levels of Public Debt

In both the industrial economies and in Latin America, interest payments comprise, on average, just over 3.5 percent of GDP. However, because Latin American governments are so much smaller, this represents nearly 15 percent of total expenditure in Latin America, as opposed to roughly 8 percent in the industrial economies.

There is substantial variation across countries of the region in the magnitude of interest payments, which range from 1 to 1.5 percent of GDP in Chile, the Dominican Republic, Guatemala, Paraguay and Uruguay, to 9.6 percent in Jamaica and 13 percent in Guyana. The magnitude of these payments primarily depends, of course, on the stock of public debt outstanding, which we discuss in more detail below. However, in several cases interest costs are much lower than would be predicted by their relatively large outstanding debts because much of the debt is highly concessional. On the other hand, for those countries of the region that rely primarily upon private financial markets, interest rates tend to be higher than those that industrial country governments pay, reflecting an assessment that the creditworthiness of Latin American governments is more limited.

Spending on Core Government Functions

In this, the largest component of government spending, Latin America spends less than industrial country governments: 15 percent of GDP against the 25 percent spent by the industrial economies.

In the Dominican Republic, Guatemala, Haiti, Peru and Paraguay, core government spending amounts to less than 10 percent of GDP, while in Argentina, Brazil, Barbados, Belize, Costa Rica, Guyana, Nicaragua, Suriname and Trinidad and Tobago, such spending is 18 percent or more, consistent with the experience of many industrial economies.

There is a tendency for the ratio of core government spending to GDP to increase as per capita income increases, though the somewhat exceptional experiences of a few smaller and poorer economies of the region—particularly Nicaragua and Suriname—obscure the pattern somewhat. These countries are special in that they receive large international transfers in support of their development efforts. Since such transfers tend to be channeled through the public sector of the recipient country, they tend to support the development of a state substantially larger than would otherwise be expected.

One interpretation of the relationship between per capita income and government size is that the demand for the public goods that are provided by core public spending tends to increase as income rises. In addition, core public spending is positively correlated with the share of the elderly in the population, suggesting that the elderly generate demand for public services other than those provided by social security systems. But it is also plausible that the association between core government spending and per capita income reflects the ability of governments in wealthier economies to mobilize a larger fraction of national income, suggesting that the limited size of core public spending in Latin America is related to constraints on the availability of public finance, as well as to factors that determine the demand for these public services. Supporting this interpretation is our finding that core public spending appears to be crowded out in countries with high public debt or public sector interest payments.

DEFICITS AND DEBT

Have They Been Particularly Big in Latin America?

It is commonly believed that fiscal deficits and resulting public debts have been much larger in Latin America than they have been in the OECD countries. There are indeed some economies of the region where this is true, most notably Guyana and Nicaragua, where during the 1990s public debt averaged five and seven times the GDP, respectively. But setting aside these unrepresentative cases, fiscal deficits and the resulting public debts have been quite similar in Latin America and the industrial economies, if measured as a share of GDP. Figure 1.10 illustrates that from 1970–95, central government deficits have
averaged about 3.8 percent of GDP in the OECD countries and 3.9 percent in Latin America. During the 1990s, fiscal deficits have been much lower, averaging only 2 percent of GDP, about half the size of those recorded in the industrial economies.

The stock of public debt, of course, is the result of deficits recorded over the long term, and the typical Latin American government possesses a public debt of around 56 percent of GDP, somewhat below the industrial country average of 68 percent. Despite this, most Latin American governments are widely perceived to be less creditworthy than most industrial country governments, as evidenced in the generally lower bond ratings and higher interest rates demanded by investors to hold Latin American debt. Guatemalan government bonds, for example, are widely perceived as a more risky investment than Italian bonds, even though Guatemala’s public debt, at about 24 percent of GDP during the 1990s, is much lower than in Italy, where the public debt is well over 100 percent of GDP.

One reason for this apparent anomaly is that GDP provides an incomplete and potentially misleading measure of the macroeconomic costs of fiscal deficits and debt. The overall size of the economy is a sensible measure when the objective is to assess how large a portion of national income is being allocated by the state. However, it is less adequate when the question is whether a given fiscal position is sustainable. This is a particularly important concern for fiscal deficits, debt, and debt service. Deficits represent postponed taxation, and today’s debts will have to be serviced out of future tax collection. Deficits and the resulting public debt may therefore pose major problems if they are large relative to a government’s tax capacity, even if they are a small share of national income.

A government’s tax capacity is, for this reason, a more informative measure with which to assess its ability to face up to present and future financial commitments than is the size of the national economy. There is some evidence that capital markets work this way in the industrial economies, since the ratio of debt service to tax revenue is a good predictor of bond ratings for state and local governments.

By this measure, Latin America’s fiscal performance during the 1990s has roughly matched that of the industrial countries, but performance over the past 25 years appears somewhat less impressive. Latin American governments possess a much more limited tax capacity than do industrial country governments, and as a share of government revenue fiscal deficits have been significantly higher than in the industrial economies. Similarly, the public debt of Latin American governments now averages about 2.5 years of tax revenue, compared with an average of 1.6 years in the industrial economies.

Another important consideration is the depth of the domestic financial system that may be called upon to finance a fiscal deficit. A fiscal deficit may generate relatively little economic and financial disruption if it is being absorbed by a very deep financial market, such as the ones that are typical of industrial economies. If, however, domestic financial markets are shallow, a deficit of the same size—measured as a share of GDP—may be highly disruptive. Financial markets are still relatively shallow in Latin America, though they have been expanding in the 1990s. Measured relative to the size of the domestic financial markets, Latin American deficits have...
been similar to those of the developed countries in the 1990s. During the last 25 years, however, they have been three times as large as in the industrial countries.

In short, by all of these measures the deficits of the 1990s have been small by comparison with the industrial economies. During the past 25 years, deficits have of course been larger. Even deficits and the public debts that they have left behind have not been particularly large by the standards of the industrial economies, if measured as a share of GDP. However, if measured as a share of fiscal revenue or the size of the domestic financial system, they have been from two to three times as large as in the industrial economies.

In addition, the existing debt of Latin American governments—the legacy of many years of fiscal outcomes—remains substantially larger than that of the industrial economies if it is measured relative to the government’s tax capacity or the size of the domestic financial system.

**Different Public Debt and Deficits**

The countries of Latin America have varied widely in their recourse to deficit financing during past decades, and in the public debt that has resulted. As noted above, Nicaragua and Guyana are the economies with the most extreme public debts. During the 1990s, debt totaled more than 25 years of revenue in Nicaragua and 12 years in Guyana. However, most of their debt is highly conditional, substantially reducing the burden.

Among the other countries of the region, public debt ranges from a low of roughly a year of fiscal revenue or less in the Bahamas, Belize, Chile, Colombia and Mexico to roughly five years of revenue in Honduras and Peru. The public debt of the typical industrial country is about one and a half years, which is exceeded by most countries of Latin America. In 11 countries of the region, public debt as a share of fiscal revenue exceeds the maximum recorded in the industrial economies. These variations in indebtedness are not easy to explain with macroeconomic variables such as per capita income, suggesting that the deficits that gave rise to the debts were determined by historical factors not well measured by available data. There is a clear association between public debt, measured as a share of GDP, and international trade. Public indebtedness tends to be higher in economies that are relatively open to international trade, suggesting that markets are willing to provide more international finance to countries where there is higher export income to service the debt. The relatively weak correlations between public debt and other potential economic determinants leaves substantial scope for political or institutional determinants of governments’ propensity to run deficits and accumulate debt, a link that is explored in detail in Chapter 2 of this section.

**Have Fiscal Deficits Been Excessive?**

According to some relevant measures, then, Latin America’s fiscal deficits and public debt have tended to be higher than those observed in the developed countries, and

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3 The most indebted industrial country is Belgium, where the public debt of roughly 130 percent of GDP amounts to 2.7 years of fiscal revenue. Italy, Greece and Portugal are very close behind.
in some countries substantially so. Is this healthy, or does it mean that fiscal deficits have been excessive? Has the political system in countries of the region displayed a significant bias toward deficit finance, to the detriment of economic progress in the region?

No matter what the measure, simple comparisons with the industrial countries can shed at best limited light on this question. Judgment ultimately rests on answering the question of whether the deficits have generated costs that exceed the benefits that may have been associated with deficit spending. A complete assessment is beyond the scope of this chapter, but enough evidence has accumulated to suggest that the costs have been substantial. This evidence will be discussed in more detail below, where we merely note that large and volatile fiscal deficits have been implicated in the region’s history of economic and financial instability, including highly disruptive collapses of the exchange rate regime, and that larger fiscal deficits appear to have complicated the cyclical management of fiscal policy and contributed to the destabilizing, procyclical fiscal adjustments that have been typical of the region. These costs suggest that the fiscal deficits that have characterized the region during much of its recent history have been regrettable, that the much more modest deficits that most countries have run during the 1990s are positive, and that countries would have been better off on balance if the political system had run similar modest deficits during previous decades.

The question thus becomes, what was it about the decisionmaking process that led to apparently excessive reliance upon deficit financing? Why have some countries apparently been more successful in avoiding a bias toward deficits? Do these countries have lessons for other countries of the region to reduce the danger that the deficit bias of past decades will emerge once again? We will turn to these issues in the next chapter, but before doing so we describe some less well recognized but equally troubling characteristics of fiscal policymaking in Latin America in recent decades: the volatility of fiscal outcomes, the destabilizing cyclical management of fiscal policy, and the existence of an electorally motivated fiscal cycle.

**VOLATILE FISCAL OUTCOMES**

We have examined the average behavior of fiscal outcomes, but an equally important aspect of fiscal policy lies in the variability of outcomes. This includes in particular the question of how fiscal policy has reacted to shocks and fluctuations in the macroeconomic environment. Has it been a stabilizing or a destabilizing influence? In this section we explore these issues. We find that fiscal outcomes have been highly volatile, and that this is related to the volatility of the underlying macroeconomic environment. But this is only part of the story. In Latin America, the volatility of fiscal outcomes does not reflect a passive response to a volatile economic environment, but rather a tendency for fiscal policy to amplify shocks in a procyclical manner.

**Highly Volatile Fiscal Balances**

We have seen that assessments of the size of Latin America’s debt and deficits depend upon some thinking about the appropriate measure to use in comparisons with industrial economic experience. Another equally important feature of Latin America’s experience with fiscal policy requires no such subtle judgments. By any measure, fiscal outcomes in Latin America have been very volatile, fluctuating from year to year to a much greater extent than has been typical of the industrial economies.

If the fiscal balance is measured as a share of GDP, for example, the typical change in the balance from one year to the next has been about 3 percent of GDP in Latin America, about twice the typical change of 1.5 percent in the industrial economies. If comparing the primary surplus, which excludes interest payments, the difference is even more pronounced: the typical change in this variable is 3.4 percent of GDP in Latin America, compared with 1.4 percent in the industrial economies.

If measured as a share of fiscal revenue or the financial system, these fiscal “shocks” are even larger. The typical change in the fiscal balance amounts to roughly 20 percent of fiscal revenue in Latin America, four times that observed in the industrial economies, and if measured as a share of the domestic financial system that must absorb fiscal shocks, the volatility of fiscal outcomes has been roughly 10 times as large in Latin America.

**Fiscal Volatility Associated with a Volatile Underlying Economy**

The instability of fiscal outcomes in Latin America is, to some extent, a reflection of the volatility of the underlying macroeconomic environment, which creates major

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4 Here and elsewhere in this section we measure volatility by the standard deviation of the underlying variable. To minimize unnecessary jargon, we often use the term “typical change” as a synonym for the more precise but less user-friendly “standard deviation of change.”
instability in the tax base and, thus, in fiscal revenue. In Latin America as in the industrial economies, tax revenue depends upon real output and income, which determine the base for income and payroll taxes, and upon private spending, which determines the base for expenditure taxes such as value-added or sales taxes and import duties. As we have noted, Latin American budgets are more sensitive to fluctuations in private spending because they rely more heavily upon indirect, expenditure-based taxes than do the industrial economies. The tax base is also affected by changes in the terms of trade; an improvement in the terms of trade will increase non-tax revenue directly if natural resource exports are in the public sector, and will affect income taxes indirectly if the higher income from higher export prices accrues to the private sector.

Public spending is also influenced by fluctuations in the macroeconomy. For example, fluctuations in the real exchange rates or world interest rates have created instability in the real value of international debt service. The budget is thus in many cases also affected by the real exchange rate, although the sign of the effect depends upon the structure of the public sector’s income and spending commitments.  

The economies of Latin America have been substantially more volatile than those of the industrial economies in all of these dimensions. The volatility of real output, growth and changes in the terms of trade has been roughly twice as high as in the industrial economies, and the volatility of private consumption growth and the real exchange rate has been nearly three times as high.

Note that in Latin America, unlike in the industrial economies, private consumption has been even more volatile than real GDP growth. This is significant, because it means that the expenditure-based taxes upon which Latin American governments rely heavily are particularly unstable sources of revenue.

How much of the volatility in the fiscal balance is attributable to the volatility of the underlying macroeconomic environment? After all, if Latin American deficits were volatile merely because they respond passively to fluctuations in output and other determinants of tax revenue, there may be little to worry about. However, macroeconomic fluctuations are not the primary reason for the higher volatility of Latin American fiscal deficits. To show this, we constructed a measure of fiscal shocks, which is the standard deviation of changes in the primary deficit after accounting for the typical impact on the deficit of fluctuations in real output, the terms of trade, private consumption, and the lagged deficit. As Table 1.3 indicates, these factors explain only a small fraction of the volatility of the primary deficit in Latin America, and the remaining volatility is still three times as large in Latin America as in the OECD countries, when measured relative to GDP.

Table 1.3. Macroeconomic Volatility

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>Industrial economies</td>
<td>Latin America</td>
</tr>
<tr>
<td>Real GDP</td>
<td>4.7</td>
<td>2.2</td>
</tr>
<tr>
<td>Real private consumption</td>
<td>5.6</td>
<td>2.1</td>
</tr>
<tr>
<td>Terms of trade</td>
<td>15.1</td>
<td>8.9</td>
</tr>
<tr>
<td>Real exchange rate</td>
<td>13.4</td>
<td>4.8</td>
</tr>
</tbody>
</table>


5 For example, if a government receives much of its income in the form of income from an internationally traded good, and most of its spending commitments are on domestically produced nontraded goods, a real exchange rate depreciation will tend to improve the fiscal balance. (This is the case, for example, of Venezuela.) If, on the other hand, the government’s income is more closely tied to domestic prices while it has large expenditures on imported goods and foreign currency denominated debt, a real exchange rate depreciation will tend to generate a deterioration of the fiscal deficit. In either case, volatility in the real exchange rate will be translated into instability in the fiscal deficit.
Government Revenue and Spending More Volatile than Deficits

Table 1.3 also documents the volatility of revenue and spending in Latin America. The volatility of fiscal revenue, measured as the standard deviation of percentage changes in inflation-adjusted revenue, is three times as high as in the industrial economies. This higher volatility is due in part to the region’s greater reliance upon volatile nontax revenue and indirect taxes, which are substantially more volatile than direct taxes in both regions. But it also reflects a higher volatility of every major form of revenue, the consequence of the higher volatility of the underlying macroeconomy.

The volatility of Latin American fiscal expenditure is also striking. Capital spending is twice, wage payments four times, nonwage purchases of goods and services six times, and transfer payments nearly nine times as volatile as in the OECD countries. How much is too much volatility in public spending? There are no precise answers, but the rough guidelines available suggest that the very high volatility that we observe in Latin American public spending is cause for concern. For example, under plausible conditions one should expect current public expenditure to adjust in line with permanent national income, implying a volatility not much greater than that of permanent income. And indeed, in the OECD countries the volatility of current fiscal expenditure is not much higher than that of GDP growth. The 15 percentage point standard deviation in Latin America’s current expenditure—though four times the volatility of GDP growth—would seem excessive by this standard. As noted above, it also seems plausible that these extreme fluctuations in public spending have an adverse effect on the efficiency of public services.

These costs might be worth paying if the fluctuations in public spending represented countercyclical movements in the budget that would stabilize the economy, and therefore reduce the macroeconomic costs of shocks to the economy as a whole. However, the evidence suggests that the opposite is true; public spending in Latin America has in fact been highly procyclical, thus amplifying rather than absorbing shocks. To document this fact and draw out some implications, we now turn to some evidence on the cyclical properties of fiscal policy in Latin America.

### Table 1.4. Volatility of Various Fiscal Aggregates, 1970-94

<table>
<thead>
<tr>
<th>Measures of fiscal balance</th>
<th>Industrial economies</th>
<th>Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in total surplus</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Change in primary surplus</td>
<td>1.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Fiscal shock</td>
<td>1.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Total revenue</td>
<td>5.2</td>
<td>15.2</td>
</tr>
<tr>
<td>Nontax revenue</td>
<td>19.6</td>
<td>40.6</td>
</tr>
<tr>
<td>Tax revenue</td>
<td>5.0</td>
<td>16.7</td>
</tr>
<tr>
<td>Income tax</td>
<td>7.4</td>
<td>18.2</td>
</tr>
<tr>
<td>Social security</td>
<td>5.6</td>
<td>18.5</td>
</tr>
<tr>
<td>Indirect taxes</td>
<td>9.9</td>
<td>24.8</td>
</tr>
<tr>
<td>Trade taxes</td>
<td>30.1</td>
<td>32.4</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>3.9</td>
<td>15.7</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>17.6</td>
<td>34.6</td>
</tr>
<tr>
<td>Current expenditure</td>
<td>3.8</td>
<td>15.3</td>
</tr>
<tr>
<td>Wage payments</td>
<td>4.5</td>
<td>17.0</td>
</tr>
<tr>
<td>Other purchases</td>
<td>7.4</td>
<td>45.4</td>
</tr>
<tr>
<td>Transfer payments</td>
<td>5.4</td>
<td>46.9</td>
</tr>
<tr>
<td>Interest payments</td>
<td>11.9</td>
<td>30.8</td>
</tr>
</tbody>
</table>

Note: Variables are standard deviations of percentage changes in the real value of the indicated variable. All variables are deflated using the GDP deflator. All figures refer to population-weighted averages of underlying country data. In some countries, data are missing for some years, in which case we used all available observations in the relevant time period.

Source: Gavin, Hausmann, Perotti and Talvi (1996).

### PROCYCLICAL FISCAL POLICY

#### The Case for a Countercyclical Fiscal Policy

In addition to ensuring that the public sector is solvent over the medium and long term, allocating resources efficiently among many competing priorities, and arranging an efficient and fair revenue structure, fiscal policymakers must adjust policy to short-term macroeconomic shocks that hit the economy and, thus, the budget. How, for example, should spending and tax rates be adjusted after a downturn in the economy that, in

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6 See Wildavsky (1986). A more complete analysis would separate military from nonmilitary expenditures, since the former category is clearly subject to political shocks exogenous to the domestic economy. However, this has not been important in Latin America.
the absence of a policy shift, would lead to a reduction in tax revenue and an increase in the fiscal deficit? In making these decisions about the cyclical management of fiscal policy, policymakers need to bear several considerations in mind.

First, if fluctuations in the budget are due to factors that are at least partly transitory, such as a change in the terms of trade that is expected to be reversed or a transitory recession, it is efficient to maintain rough stability in tax rates and spending programs, thus generating fiscal surpluses when the economy is booming and deficits when it is in recession. The optimal mix between deficit financing and fiscal adjustment to the shock would thus depend upon the permanence of typical shocks to the tax base. When periods of recession and boom tend to be relatively short, economic downturns should be associated with large fiscal deficits and booms with large surpluses. If recessions and booms last longer, the magnitude of the fiscal swings would be moderated, but policy should still aim to achieve surpluses in good times and deficits in bad.

This is often called the “neoclassical approach” to optimal fiscal policy, because it abstracts from Keynesian considerations, such as the possibility that fiscal policy can be used to affect output and employment in the economy. When such Keynesian considerations are considered, the case for a countercyclical fiscal policy is strengthened. Fiscal authorities would want to cut taxes or increase spending during bad times to reduce the magnitude and duration of the associated recession, thus generating an even larger fiscal deficit during bad times than would occur if fiscal authorities held tax rates and spending levels constant. The same logic justifies a fiscal contraction, and thus even larger surpluses in good economic times.

An important and highly relevant caveat applies to this discussion. As has recently been emphasized by Giavazzi and Pagano (1990), changes in fiscal policy may have opposite effects if the initial fiscal position is tenuous. For example, if a government is nearly insolvent, a fiscal expansion may create such fears of a fiscal crisis that it will lead to a collapse of confidence, thus tending to reduce rather than expand domestic demand. Perotti (1996) presented evidence that suggests this is a real possibility. Giavazzi and Pagano (1990) presented theoretical and empirical evidence that the converse can also happen, that fiscal contractions can have expansionary effects on the economy if they occur when the government’s fiscal position is tenuous, thus significantly reducing the probability of a fiscal crisis.

Thus, the optimality of a countercyclical fiscal policy response to adverse shocks or a cyclical downturn of the economy should be understood to apply mainly to governments for which there are no important concerns about solvency; a barely solvent government may find it very difficult or impossible to implement such policy. It may instead find that it has little choice but to respond to adverse shocks with a fiscal contraction, with the aim of restoring confidence in the medium-term viability of public finances, and keeping the demand for financing consistent with the more restricted supply. As we shall discuss in more detail below, this appears to be an important part of the Latin American fiscal story, and the relevant question is how Latin American governments can manage fiscal policy to facilitate a more stabilizing response to adverse shocks or cyclical downturns.

Fiscal Balances Display a Procyclical Pattern

The a priori case for a countercyclical fiscal policy is thus well established. Unless fiscal policy has been managed so that doubts about the government’s solvency preclude it, an appropriate fiscal policy would display fiscal surpluses during good times and deficits during bad. And this is more or less what we observe in the industrial economies, where the fiscal balance tends to move into deficit when output growth slows, and toward surplus when the economy grows more rapidly than normal. This is illustrated in Table 1.5, which provides estimates of the typical short-run impact on the fiscal surplus of higher real GDP growth in Latin America and the industrial economies.

The estimates suggest that a one percentage point increase in GDP growth is associated with a movement toward fiscal balance of about 0.25 percentage points, indicating that in the industrial economies fiscal policy has tended to be countercyclical, in the sense described

7 If there are costs of very rapid fiscal adjustment, one would also expect to see transitory deficits in the aftermath of adverse shocks, and surpluses after favorable shocks, even if the disturbances are permanent.
8 This idea that governments should finance transitory shocks and adjust to permanent shocks has a long history. The basic idea has been analyzed rigorously and extended by Robert Barro, who derived the result that the optimal fiscal response to economic fluctuations involves an element of “tax rate smoothing.”
9 A second caveat has to do with lags in the implementation of countercyclical policies. If it takes a long time to move countercyclical fiscal policies through the political process, the response to recession may arrive after the recovery has begun, thus amplifying the cycle rather than dampening it. This introduces an important note of caution in attempts to introduce discretionary changes in fiscal policy, but it does not provide a rationale for procyclical fiscal policy.
Latin America, however, displays little or none of this countercyclicality—the fiscal balance is almost totally uncorrelated with cyclical fluctuations in output. As we shall see below, this reflects the fact that both revenue and spending have tended to decline dramatically when the economy slows down, and to rise together when the economy recovers.

This is not the end of the story, for the fiscal response to economic fluctuations depends upon the nature of the shock. Table 1.6 compares the fiscal response to cyclical fluctuations during good and bad times, where “bad times” are, roughly speaking, periods of recession, and “good times” all other times. The industrial countries display a very interesting pattern. In periods of high growth, the fiscal balance is only moderately sensitive to output shocks, increasing by 14 to 17 cents for every dollar’s worth of higher output. During bad times, however, the fiscal balance is highly sensitive to output fluctuations: for example, the fiscal balance would deteriorate by roughly 60 cents if GDP were to decline by an additional dollar. This pattern is consistent with a world in which recessions are politically or economically more costly than economic booms, and tend therefore to elicit a much larger countercyclical response.

Almost precisely the opposite pattern is observed in Latin America. The response of the fiscal balance to cyclical fluctuations appears to be similar in good times, but in bad times there is a weak tendency for the fiscal surplus to move in the “wrong” direction, with recessions being associated with a decline in the fiscal deficit, rather than the reverse.

The pattern is even more striking if we confine our attention to deep recessions. Figure 1.15 compares the cumulative change in real GDP with the cumulative change in the fiscal surplus during deep recessions. In the industrial economies, we see a very consistent relationship: large recessions are associated with large movements in the fiscal balance toward deficit. No such pattern is observed in Latin America, where, indeed, the average change in the fiscal balance in the 26 deep recessions illustrated in Figure 1.15 is positive, the “wrong” sign. This must have involved an enormous fiscal contraction, for the recession would have exerted a powerful tendency for the budget to move toward deficit if the stance of fiscal policy had remained neutral.

These episodes, and the statistical evidence described above, are all drawn from the 1970–94 period, most of which predates the fiscal consolidation of the 1990s. However, the experiences of Argentina and Mexico during the 1995 crisis provide cautionary evidence that the problem of procyclical fiscal adjustment remains relevant. Both countries fell into deep recessions in 1995, during

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**Table 1.5. Cyclical Response of the Fiscal Balance, 1970-94**

<table>
<thead>
<tr>
<th>Impact of real GDP growth</th>
<th>Industrial economies</th>
<th>Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total surplus</td>
<td>0.25</td>
<td>0.08</td>
</tr>
<tr>
<td>Primary surplus</td>
<td>0.22</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Note: Numbers give the typical impact of a one percentage point increase in real GDP on the budget category, derived from a statistical analysis that also controls for shocks to the terms of trade and the fiscal position in the previous year. A positive number for the surplus means that it moves in a stabilizing direction.

Source: Gavin, Hausmann, Perotti and Talvi (1996).

**Table 1.6. Response of Fiscal Balance to GDP Growth in Good Times and Bad, 1970-94**

<table>
<thead>
<tr>
<th>Good times</th>
<th>Bad times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial economies</td>
<td>Latin America</td>
</tr>
<tr>
<td>Total surplus</td>
<td>17.4</td>
</tr>
<tr>
<td>Primary surplus</td>
<td>13.6</td>
</tr>
</tbody>
</table>

Note: Numbers give the typical impact of a one percentage point increase in real GDP on the ratio of the surplus to GDP. A positive number for the surplus implies that it moves in a stabilizing direction.

Source: Statistical analysis as described in Gavin and Perotti (1997a).
which time a stabilizing fiscal policy would have been very valuable. However, policymakers in both countries felt obliged to respond to the crisis with major fiscal contractions that included important reductions in public spending and increases in tax rates. This was almost certainly the best response available, given the precariousness of the countries’ access to credit markets. However, if not dealt with, that precariousness may continue to generate costly and destabilizing responses to economic shocks in the future.

**Highly Procyclical Revenue and Spending**

The failure of Latin American fiscal surpluses to move in a stabilizing manner is not due to a smaller sensitivity of tax revenue to the business cycle; indeed, tax revenue is even more sensitive to economic activity in Latin America than in the OECD countries, and if spending behaved similarly, Latin American budgets would be even more stabilizing. The key difference between Latin American and industrial country fiscal outcomes lies in the cyclical behavior of public spending. In the industrial economies, total public spending is essentially uncorrelated with short-term fluctuations in output.

Transfer payments, which include spending on important income- and unemployment-sensitive programs that tend to increase during recessions, move in a countercyclical fashion and offset mildly procyclical movements in other components of public spending. In Latin America, however, all components of the budget move in a procyclical fashion, sometimes dramatically so. A one percentage point increase in real GDP is, for example, associated with an increase in real public capital spending of 1.58 percentage points and in nonwage government consumption of nearly 3 percentage points.

**Fiscal Procyclicality Reinforced by Inflation Tax**

In the industrial economies, inflation is procyclical in the sense that it tends to increase during periods of economic boom and decline in periods of recession. In Latin America, however, the opposite is observed: inflation tends to be higher during bad economic times and lower...
when the economy is buoyant. In Latin America, then, the inflation tax tends to increase when times are bad and decline when they are good, reinforcing the procyclicality of fiscal policy. Unlike in the industrial economies, inflation in Latin America also tends to be higher when the previous year’s fiscal deficit was higher. 13

These patterns suggest that inflation has acted much more like an instrument of fiscal policy in Latin America than has been the case in the industrial economies. This may, but need not be, the result of a conscious choice by policymakers to exploit inflationary finance when fiscal imbalances become very large. One scenario is that when the private sector becomes convinced that the political system will be unable to rapidly address a budgetary shortfall created by bad economic news, a loss of confidence generates a run on the domestic currency, and the resulting depreciation generates a burst of inflation. This may address the fiscal shortfall, at least temporarily and partially, because the inflationary surprise will tend to erode the real value of nonindexed spending commitments. 14

The end result is that the inflation tax reinforces the procyclicality of the budget, rising when the economy moves into recession and declining in good times, thus tending to amplify economic fluctuations.

Cyclical Management of Fiscal Policy Varies

Not all countries of the region display the same degree of procyclicality. If we measure the procyclicality of fiscal policy as the correlation between cyclical movements in government consumption and in real output, the Dominican Republic, Ecuador, Barbados, Bolivia, Argentina and Colombia display a relatively low degree of procyclicality, roughly comparable to that observed in Germany, Italy and Japan.

In Costa Rica, Mexico, Peru and Venezuela, on the other hand, the correlations between cyclical movements in government consumption and real output are roughly 0.8 or more, signifying a very tight relationship between economic fluctuations and government consumption.

Close Relationship Between Volatility and Procyclicality

Figure 1.18 suggests that fiscal procyclicality is associated with macroeconomic volatility, where volatility is measured as the standard deviation of real output growth. This statistical association is partly due to the fact that the large industrial economies are relatively stable and also tend to determine their fiscal policy in a relatively countercyclical manner.

However, it is also true that the three Latin American economies with the lowest macroeconomic volatility—Colombia, the Dominican Republic and Ecuador—display much less procyclicality than do other countries of the region. There are at least two plausible explanations for this statistical association. One is that macroeconomic volatility is higher where fiscal policy is more procyclical because the procyclicality tends to amplify

13 See Gavin and Perotti (1997b) for a more detailed discussion.
14 Persson, Persson and Svensson (1996) argue that the impact of an unexpected increase in inflation on the fiscal balance is large and positive in Sweden. This need not be the case, because an increase in inflation may also have a large negative effect on fiscal revenue.
economic fluctuations, generating higher volatility. This is probably part of the story, but an equally plausible (and potentially complementary) explanation is that a highly unstable macroeconomic environment makes it difficult to manage a countercyclical fiscal policy.

**Disruptive Effects of Fiscal Volatility and Procyclicality**

The volatility and procyclicality of fiscal policy in Latin America has been costly. Not only has the “stop and go” nature of public spending almost certainly generated inefficiencies in the provision of public services, it has also contributed to macroeconomic volatility more generally. The contribution of fiscal volatility to the volatility of real output and the real exchange rate was documented in Inter-American Development Bank (1995), which also presented evidence that this macroeconomic volatility has lowered economic growth in Latin America by as much as a full percentage point per year, reduced investment, undermined educational attainment, worsened the distribution of income, and contributed to higher poverty in the region. There is also a strong link between fiscal volatility and monetary and financial instability. Inter-American Development Bank (1995) shows that fiscal volatility is associated with more unstable monetary outcomes, which undermines the domestic financial system. Gavin and Perotti (1997b) show that fiscal booms are strongly associated with the abandonment of fixed exchange rate regimes in Latin America, and that these abandonments have been highly disruptive for the economy.

**Disproportionate Effects on the Poor**

The evidence also suggests that the poor have suffered disproportionately from the economic and financial instability that has been caused, in part, by volatile and procyclical fiscal policies. As we have noted, there is evidence that economic volatility worsens the distribution of income. This is probably in part because the poor are less well equipped to cope with economic shocks. It also reflects the fact that incomes of the poor are substantially more sensitive to changes in aggregate income than are the incomes of the wealthy (Londoño and Székely, 1997).

**Why Is Latin American Fiscal Policy Procyclical?**

As we have noted, the destabilizing, procyclical nature of fiscal policy in Latin America is most pronounced in bad times, when fiscal policy is most countercyclical in the industrial economies. There is good reason to believe that this procyclicality has to do with a loss of access to non-inflationary sources of finance during bad economic times. This helps explain why inflation tends to increase during bad times; if we view inflation as a fiscal resource of last resort, then sudden bursts of inflation offer support for the idea that alternative financing sources have become more scarce. It is also consistent with the evidence that Latin American governments’ recourse to IMF credit and “extraordinary” sources of international financing tends to increase during bad economic times.15

All of this suggests that the procyclical behavior of fiscal policy during bad times is the best response available to the authorities, given the somewhat precarious nature of their access to noninflationary sources of finance. This suggests, in turn, that improving the fiscal response to bad times cannot be achieved simply by deciding to relax fiscal policy. As was discussed above, this could promote a collapse of confidence in the viability of public finances and an even larger crisis. Instead, emphasis has to be placed on managing fiscal policy during the good times, ensuring that the fiscal position is sufficiently solid that the fiscal implications of an adverse shock or economic downturn will not generate fears about the viability of public finances, thus ensuring that the financing required to implement a more stabilizing, countercyclical response to the bad times will be available.

This idea that a more stabilizing response to bad times can be achieved by maintaining a more solid fiscal position during good times is supported by the evidence for Latin America. Gavin and Perotti (1997b) show that Latin American countries that enter a bad period with a strong fiscal position have tended to display a substantially lower degree of fiscal procyclicality, as measured by the response of the fiscal balance to changes in real economic activity, than have countries in the region that entered the period with large fiscal deficits.16 One interpretation of this finding is that countries that enter a period with a fiscal position strong enough to weather an adverse shock without falling into a potentially unmanageable fiscal deficit do not suffer the loss of confidence that would otherwise enforce a procyclical adjustment,

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15 See Gavin and Perotti (1997b). “Extraordinary” financing includes arrears, IMF credit and special financing operations such as the U.S. Treasury’s support for Mexico in 1995.
16 See Gavin and Perotti (1997b). A “low” fiscal deficit was defined as a deficit of less than 3 percent of GDP. Gavin and Perotti (1997a) also present evidence that the private as well as public sector of Latin America is affected by the loss of market access during bad economic times.
and are therefore able to manage a more stabilizing fiscal response to economic downturns.

The question then becomes, why has it proven so difficult to achieve the required management of fiscal policies during good times? This would require that governments save a large portion of the temporarily high revenue that they receive, thus running large fiscal surpluses when times are good. It may be much harder for Latin American governments to do this precisely because the economic booms and fiscal shocks are so large; it is very difficult to hide large fiscal surpluses from participants in the fiscal decisionmaking process. And as we discuss in more detail in Chapter 2, it may be individually rational for all participants to spend a transitory boom in fiscal revenue, even though everyone would be better off if there were some way to commit all participants to a cooperative strategy that enforced more saving of the boom income. The collective nature of decisionmaking about fiscal policy thus tends to promote an overspending of income during economic booms, which is procyclical in itself and also sets up the economy for an even more procyclical reaction to economic downturns.

In a highly volatile economic environment, there is thus a potential vicious circle, which is related to the political distortions that are discussed in more detail below. Countries may be forced into procyclical fiscal adjustments during bad times because they lose access to financial markets. This loss of market access occurs because the very large fiscal shocks raise doubts about the political feasibility of the required adjustment. The resulting procyclical fiscal response exacerbates the problem of macroeconomic volatility. This vicious circle could be broken if the government were to find a way to commit itself to save enough during good times to ensure a viable fiscal position even after a large adverse fiscal shock. But for reasons that are discussed in more detail below, it has generally proven to be as difficult in Latin American democracies as it has in the industrial economies to maintain large fiscal surpluses during good times. The difference is that the costs of this failure are much higher in the volatile Latin American environment.

This makes the management of fiscal policy very challenging in Latin America, substantially more so than in the industrial economies. It requires much larger and more costly adjustments, and a more complex problem of cyclical management, all of which must be undertaken through a democratic decisionmaking process. The challenge is to organize management of fiscal policy so that the democratic process can respond more effectively to the special challenges that face the region.

**ELECTORAL BUDGET CYCLES**

At no time is the potential interaction between democratic politics and fiscal outcomes intuitively easier to grasp than around election time, when governments often relax fiscal policy in order to please—or at least try to avoid alienating—important constituencies. Of course, tax cuts or extra spending in the pre-election period will have to be covered, with interest, by tax increases or spending cuts in the post-election period, and if they are large enough they may even destabilize the economy. But the strategy may nevertheless be attractive to a government, because the potential macroeconomic costs will generally be borne, and the required fiscal correction take place, after the election, by which time they may, after all, be some other government’s problem.

The influence of elections on Latin American fiscal outcomes is, in some cases, relatively easy to discern. Figure 1.19 documents the case of Costa Rica, a country with a long history of democratic elections, and one where the electoral budget cycle is clearly visible. It can be seen that over the past 20 years almost every election year has been accompanied by a significant deterioration of fiscal balance, which is generally corrected in the years immediately following the election.

This problem has been recognized by the Costa Ricans, and is one of the reasons that they have been debating major institutional reforms that would place constraints on the ability of lawmakers to resort to deficit financing of public spending. A proposal now under discussion would likely limit the fiscal deficit to no more than one percent of GDP, except in extraordinary circumstances and subject to approval by a two-thirds majority of the Congress.

In this pattern, Costa Rica is far from unique. Figure 1.20 illustrates the typical evolution of Latin American budgets around the time of an election. 17

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17 See Lane and Tornell (1996) for a more extended discussion of these “voracity effects.” Talvi and Végh (1997) argue that procyclical fiscal policies can in fact be optimal in highly volatile environments when fiscal surpluses generate strong pressures for wasteful public spending.

18 Figure 1.20 is based upon a statistical analysis of election years and fiscal outcomes that also controls for (i) the previous period’s fiscal balance; (ii) the growth rate of real GDP and the terms of trade; (iii) country dummy variables that control for unobserved country-specific factors; and (iv) dummy variables for each year of the sample period, which control for unobserved factors that vary over time, but are common to countries of the region. The estimated impact of the election year and the post-election years are statistically significant at the 5 percent confidence level, but the estimated impacts on revenue and expenditure are less precisely estimated.
We find that during election years, spending tends to be higher than usual and fiscal revenue lower, with the result that the deficit is typically about 1.3 percentage points larger than during nonelection years. In the year after the election, public spending goes back to normal, revenue rises, and the fiscal balance tends to be roughly 1.3 percentage points above normal, implying an apparently election-related swing in the fiscal balance of more than 2 percentage points of GDP.

If it exists at all, this fiscal response to elections is much more subtle in the industrial economies; we were unable to uncover any systematic relationship between elections and fiscal outcomes in the industrial country data. This suggests that the strategic use of fiscal policy to enhance electoral prospects of the governing party is more pervasive in Latin America than in the industrial economies.

Why might this be true? One possibility is suggested by evidence that the depth of the electoral budget cycle in Latin American countries is correlated with the volatility of the underlying macroeconomic environment. This correlation has two plausible explanations. One is that countries whose political systems have managed to constrain the fiscal response to elections have avoided the destabilizing consequences of that response, and for that reason have more stable economies. Another potentially complementary explanation is that in countries with substantial macroeconomic volatility, and therefore large shocks to the budget, it may be easier to indulge in election year fiscal expansions, which are less visible amidst the noise created by the economic environment, and therefore less exposed to the harsh light of scrutiny by the public and opposition politicians.

**CONCLUSIONS**

During recent years, and in many respects, Latin America’s fiscal outcomes have been exemplary. There are more countries in Latin America that satisfy the Maastricht Treaty criteria for entry into the European monetary system than in Europe. But our examination of fiscal outcomes in Latin America suggests that there is room for improvement. The fiscal consolidation of the 1990s must first be defended against political pressures that have arisen in the past, and could arise again. Latin American fiscal outcomes have displayed an important element of procyclicality, tending to amplify rather than mitigate economic fluctuations. Recent experience suggests that this problem remains significant, despite the fiscal consolidation of the 1990s. Finally, we uncovered evidence of a tendency for fiscal policy to respond to elections, which suggests that there may be benefits in finding ways to prevent short-term political pressures from exercising undue influence over fiscal policymaking. The chapter that follows builds upon these stylized facts to learn from the Latin American experience what institutional adaptations have been effective in promoting more effective fiscal policy in the region.

19 Volatility was measured as the standard deviation of real GDP growth, and the depth of the electoral budget cycle was measured as the estimated impact on the fiscal surplus of election years, after controlling for the previous period’s fiscal balance, the growth rate of real GDP and the terms of trade, country dummy variables that control for unobserved country-specific factors, and dummy variables for each year of the sample period.
REFERENCES


This chapter looks at the way in which the democratic decisionmaking process is organized in the national fiscal institutions of Latin America. The previous chapter established that fiscal problems remain despite tremendous strides in Latin America in terms of deepening democracy and strengthening public finances. These problems include a deficit bias, high volatility in the fiscal accounts, procyclical responses to shocks, and electoral budget cycles. The problems are interrelated and may reinforce each other, and in this chapter we argue that they are intimately related to political distortions in fiscal decisionmaking.

Deficit bias lies in the fact that fiscal policy is decided collectively, as in the chicken and lobster problem, so that participants do not recognize the full social cost of the programs they support. This commons problem also affects the dynamic response to shocks: fiscal surpluses dissipate as soon as they appear because everyone fears that their decision to save them for times of shortages only increases another group’s chances to grab them today. Response to shocks may be delayed as one group tries to shift the burden of adjustment onto others. The eventual response to a negative shock may have to be procyclical because the political system may not be able to find the necessary financing required for an anticyclical policy, since it cannot credibly commit to generate the necessary surpluses in the future to pay off the debt.

In spite of these remaining problems, this is an optimistic chapter. It presents recent research findings that show that many countries in the region, because of their institutional choices, have been able to limit the extent of these problems while at the same time preserving democratic and participatory decisionmaking. It points to an agenda of reforms that is grounded to a large extent in the successes of the region, but also looks at what may lie ahead.

The section that follows provides a conceptual framework designed to understand the challenges that democratic decisionmaking in fiscal matters must confront. We then move on to study two institutional arrangements with important implications for fiscal decisionmaking: electoral systems and budget institutions. Here we document and discuss how the region is organized. An evaluation then follows of the impact of institutional choices on fiscal performance. We find that there are arrangements that limit the deficit bias problem, but procyclicality and electoral budget cycles remain unsolved. The chapter ends with a discussion of institutional arrangements that may improve democratic decisionmaking in all these dimensions. We concentrate on institutional design because in a setting with many actors, such as a democracy, policy recommendations cannot be based only on a set of exhortations in favor of principles of sound management, which most people already agree
on but are unable to carry out, given the political dy-
namics they face. Instead, we focus on a set of rules and
institutions which, by changing the nature of the politi-
cal game, can actually deliver on those principles.

FOUR PROBLEMS A DEMOCRATIC FISCAL
PROCESS MUST SOLVE

The ability to organize large societies with millions of
citizens participating in the political process, and to de-
sign mechanisms that deliver good government and
sound fiscal performance, are among the great achieve-
ments of humanity. Analysts can only be mesmerized by
the complexity of the problems democratic institutions
must solve. These problems can be split into four major
areas: aggregation of preferences, coordination, credibility and
agency.

Aggregation

How can social choices be made out of individual pref-
erences? Ever since Arrow’s impossibility theorem showed
the complexities of this process, much economic theory
has been developed to understand its implications. In
representative democracies, people vote for others who
are meant to express their preferences. The way their in-
dividual votes are added up to define a number of repre-
sentatives, and the way the vote of the representatives is
added up to define a decision, is one key element of this
process.

For the same electoral results, some rules of ag-
gregation, such as first-past-the-post systems, may give
rise to large majorities, while others, such as systems
of proportional representation, may lead to many
small parties that need to govern through coalitions.

Another dimension of this problem is the degree of
political decentralization of public decisions. For the same
electoral results, a system in which road investments are
decided on by locally elected governments would lead to
an allocation of resources very different from a system in
which that decision is made in the federal congress. In
fact, as we shall see in Chapter 3, one of the driving forc-
es behind the current move towards decentralization is
precisely the fact that it allows a closer match between
local preferences and public decisions.

Moreover, the rules of aggregation themselves may
affect the number of parties that coexist. Proportional
representation and two-round election systems tend to
generate political systems with a larger number of par-
ties, while first-past-the-post systems lead to fewer par-
ties. Hence, the way votes are added up affects the politi-
cal structure of the country and, in particular, the likeli-
hood of minority or coalition governments.

Hence, some systems lead to coalition governments
that are forced to find common ground in order to satis-
fy the preferences of a larger electorate; other systems
might generate a more decisive majority, but at the cost
of incorporating the preference of fewer voters.

Coordination

Once political representatives are chosen and they ap-
point the relevant government officials, this group of
politicians and bureaucrats must now deal with each oth-
er according to a set of rules and procedures. This inter-
action may lead to distortions that arise out of the inter-
connected nature of their decisions. We saw already the
commons problem exemplified in the chicken and lob-
ster story. Government revenue can be thought of as a
common resource that is perceived as underpriced and
hence is subject to overutilization. If participants have
concentrated interests, they will ask for spending on the
programs they like, with the cost borne by all taxpayers.
If many groups do this, there will be a tendency towards
excessive spending. This same logic may lead to overin-
debtedness, since each group may prefer to postpone the
burden of taxation through deficits, given that they will
only pay for a small fraction of the additional debt.

Another related issue is the dynamic commons prob-
lem. Suppose that a country has just suffered a positive
and temporary shock due to an improvement in the terms
of trade. Most would agree to the proposition that the
resulting fiscal windfall should be saved to protect spend-
ing programs in less favorable times. However, if some
groups fear that others will use their acquiescence to grab
the resources, then they will have incentives to do the
same. The lack of a coordination mechanism to ensure
that resources will be carried over to another day leads to
their immediate dissipation.

A third issue is that of delayed adjustment. When
heterogeneous collective bodies must decide on difficult
but necessary measures, there may be a tendency to de-
lay action in order to wait and see if some other group is
willing to bear the burden of adjustment. As this process
goes on, economic costs often mount. Delayed adjust-

2 See Alesina and Drazen (1991), Drazen and Grilli (1993) and Guidotti and
ment is more likely when there is divided government, a circumstance influenced by the electoral system.

Credibility

Economic decisions involve a calculation about the future. In that calculation, the future course of economic policy becomes an important element, since it can significantly affect the absolute and relative attractiveness of different projects. However, in a democracy the future course of economic policy will, to a large extent, be decided by future governments. Current governments might want to acquire certain commitments about future policy choices so as to assure current investors, but these commitments may be reversed by future governments. The credibility of current explicit and implicit commitments will then become an important determinant of investment. This problem is especially severe if there is a time-inconsistency problem, i.e., a situation in which it is optimal to promise something now, but later it becomes optimal to renege on it. We argued in Chapter 1 that lack of credibility may be behind the need for governments to take on a larger investment role in infrastructure and natural resources.

This logic is particularly applicable to government debt. In order to issue bonds, governments have incentives to promise that they will make good on their commitment to service these obligations. But once issued, there are incentives to repudiate those obligations either explicitly, through a payment moratorium, or implicitly, through surprise devaluation and inflation. Knowing this, investors will demand a large risk premium on these instruments, making it less attractive to issue them and more enticing to default on them. The market for debt may disappear altogether.

Latin America has had relatively precarious access to capital, as we already saw in Chapter 1. This may arise from insufficient credibility. For example, a government may wish to borrow in bad times and repay the debt later in good times in order to smooth economic fluctuations and tax rates. However, if the government’s commitment to pay later is in doubt, the markets will not be willing to finance the deficit and the government may be forced to cut spending and raise taxes during recessions, hence behaving procyclically, as described in Chapter 1.

One contributing factor in the ability to commit is the degree of polarization in society. If economic policy has broad-based support, then it will be more credible. Credibility may also be affected by the likelihood that the government will change. Electoral systems that lead to coalition governments may be expected to change more frequently and hence lead to greater commitment problems.

Agency

In a representative democracy, the public at large delegates choices to elected officials, who then recruit a set of appointees. Both politicians and bureaucrats are meant to act with the best interest of the electors in mind. But they obviously might have incentives to put their own interests ahead. This is the essence of the agency problem.

This problem is most acute when agents have so much discretion that they are free to choose among a wider set of actions, and when these choices are not easy to observe.

Some institutional arrangements are better than others to cope with this problem. Disclosure requirements may reduce the information asymmetry that agents exploit in order to hide their actions. A free press and a credible judicial system may impose sufficient dissuasive elements to keep agents honest. The ability to reward and punish politicians, an aspect affected by the structure of government and the competitive nature of the political process, may constrain agents. One common justification for decentralization is that it allows electors to discipline top local officials who perform functions that would be carried out by low-level bureaucrats in a centralized system.

One form the agency problem might take affects the electoral budget cycle. An unchecked executive may exploit the inability of the public to distinguish between healthy economic expansion and an artificial and unsustainable fiscal impulse in order to cause an election year boom that may require future cutbacks once the election is over.

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3 The literature on credibility started with Kydland and Prescott (1977) and Calvo (1978).
4 See Bulow and Rogoff (1989) and Calvo and Guidotti (1993).
5 Talvi and Végh (1996) argue that if governments are unable to run large surpluses they will be unable to choose a stabilizing fiscal policy. Since Latin America has larger fluctuations, the required surpluses are larger and more difficult to achieve. Saint-Paul (1994) argues that in a context of asymmetric information about the government’s intentions, the authorities may choose a very procyclical fiscal reaction in order to signal their commitment to sound finances. Moreover, he points out that this result is most likely to be obtained in volatile and highly indebted countries.
6 For an excellent nontechnical review of agency problems, see Arrow (1985). A more technical treatment can be found in Hart and Holmstrom (1987).
ELECTORAL SYSTEMS

Aggregation, coordination, credibility and agency are four problems at the core of democratic decisionmaking. The following sections focus on two institutions that are at the core of fiscal policy: electoral systems and budget institutions. The specific design of these institutions implies difficult tradeoffs between the four different problems. More representative electoral systems may make coordination and credibility more difficult to achieve. More hierarchical decisionmaking may solve the commons problem, but the hierarchical authority may generate greater agency problems. To improve credibility, governments may need to tie their hands in ways that will sacrifice precious flexibility needed to adjust to shocks and unforeseen new realities. This section discusses the main dimensions of electoral systems and analyzes how they might have impacted fiscal performance. We do the same for budget institutions in the subsequent section.

Electoral systems are the set of rules under which members of parliament and the chief executive are elected in a representative democracy. They are instrumental in shaping such political outcomes as the degree of fragmentation of the government (whether majority, minority or coalition), the number of parties represented in the legislature, and the ability of minorities to obtain political representation.

A critical dimension of an electoral system is the electoral formula. There are three main types of electoral formulas: first-past-the-post or plurality systems (PL), where only one representative is elected per district and all seats go to the winner; proportional representation systems (PR), where the seats are distributed in proportion to the votes obtained according to some allocation rule; and mixed systems that combine features of both. This polar representation is a bit fuzzier in practice. Some PR systems have few seats to be allocated per district and hence cannot achieve much proportionality in the representation. Other systems have larger district magnitude (DM) of winners within the list. District magnitude is a more continuous representation of electoral systems contained between the two polar cases of pure PL or PR.

As we shall see, proportional representation systems (i.e., systems with large district magnitude), tend to encourage multiparty political systems, political representation of minorities and coalition governments. By contrast, first-past-the-post arrangements usually produce two-party systems and majority governments, and make it difficult for minorities to be represented in the legislature.

Electoral Systems in Latin America

Latin America has a large variety of electoral systems. However, proportional representation is by far the most common system: 15 of the 26 countries have such systems. Six (the Bahamas, Barbados, Belize, Haiti, Jamaica and Trinidad and Tobago) have first-past-the-post or plurality systems, and five (Chile, Mexico, Panama, Peru and Venezuela) have mixed systems (see Table 2.1). For example, in Mexico and Venezuela some candidates for the lower house are elected under the PL system, while others are elected using proportional representation. In Panama, legislators are elected by PL or PR depending on the electoral circuit where they run. In Chile and Peru, candidates are presented in lists but voters can cast a preferential vote for one of the candidates, and the candidates with the largest number of preferential votes are selected within the list.

Seventeen countries have two-tier or bicameral systems, while nine have only one-tier or unicameral systems. In all cases except Panama, unicameral systems are observed in countries with a PR system. All PL systems are bicameral. Two-tier systems can achieve a balance between different aggregation criteria. Some allow balance between demography and geography, while others combine the advantages of a close voter-representative contact characteristic of smaller districts, with the advantages of greater proportionality and minority representation offered by larger districts.7

District size varies considerably across countries (see Figure 2.1). Obviously, PL systems have small district sizes. Among PR or mixed systems, district size varies from 2 in Chile and 3.2 in Ecuador to 10.3, 14.4, 16.6, and 19 in Argentina, Bolivia, Mexico and Brazil, respectively. The variety in district size is even greater in the upper house, ranging from 2 in Chile to 102 in Colombia.

Another important dimension of the electoral systems has to do with the way in which the executive is chosen. In presidential democracies the presidency is voted on directly and has significant independent authority. By contrast, in parliamentary democracies the prime minister is accountable to the legislature. The manner in

7 See Lijphart (1994).
Table 2.1. Electoral Institutions and Political Outcomes

<table>
<thead>
<tr>
<th>Country</th>
<th>Legislative electoral formulas</th>
<th>Number of legislative chambers</th>
<th>Lower/ single house district magnitude</th>
<th>Higher house district magnitude</th>
<th>Average district magnitude</th>
<th>Presidential vs. parliametary systems</th>
<th>Number of rounds</th>
<th>Absolute number of parties in lower house</th>
<th>Effective number of parties in lower house</th>
<th>% of legislative seats held by the head of government's party in the lower/ single house</th>
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</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>PR</td>
<td>2</td>
<td>10.3</td>
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<td>P</td>
<td>2</td>
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<td>Na</td>
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<td>1.34</td>
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<td>3</td>
<td>1.84</td>
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<td>1.6</td>
<td></td>
<td>Pa</td>
<td>Na</td>
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<td>2.00</td>
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<td>P</td>
<td>2</td>
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<td>4.95</td>
<td>0.58</td>
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<td>102.0</td>
<td>42.1</td>
<td>P</td>
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<td>5</td>
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<td>8.1</td>
<td></td>
<td>P</td>
<td>2</td>
<td>5</td>
<td>2.43</td>
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<td>1.0</td>
<td>3.4</td>
<td>P</td>
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<td>2.43</td>
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<td>P</td>
<td>1</td>
<td>13</td>
<td>5.21</td>
<td>0.23</td>
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<td>8.2</td>
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<td>P</td>
<td>1</td>
<td>8</td>
<td>4.03</td>
<td>0.33</td>
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<td>6.9</td>
<td>6.9</td>
<td></td>
<td>P</td>
<td>2</td>
<td>4</td>
<td>7.27</td>
<td>0.54</td>
</tr>
<tr>
<td>Guyana</td>
<td>PR</td>
<td>1</td>
<td>43.4</td>
<td>43.4</td>
<td></td>
<td>P</td>
<td>2</td>
<td>4</td>
<td>2.14</td>
<td>0.54</td>
</tr>
<tr>
<td>Haiti</td>
<td>PL</td>
<td>2</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>P</td>
<td>2</td>
<td>8</td>
<td>1.46</td>
<td>0.82</td>
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<td>PR</td>
<td>1</td>
<td>7.1</td>
<td>7.1</td>
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<td>P</td>
<td>1</td>
<td>3</td>
<td>2.03</td>
<td>0.55</td>
</tr>
<tr>
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<td>1.3</td>
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<td>Pa</td>
<td>na</td>
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<td>1.26</td>
<td>0.88</td>
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<tr>
<td>Mexico</td>
<td>Mix</td>
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<td>16.6</td>
<td>4.0</td>
<td>14.0</td>
<td>P</td>
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<td>4</td>
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<td>0.60</td>
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<td>P</td>
<td>1</td>
<td>10</td>
<td>2.74</td>
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<td>1.8</td>
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<td>P</td>
<td>1</td>
<td>12</td>
<td>4.06</td>
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<td>4.7</td>
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<td>1</td>
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<td>2.38</td>
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<td>Peru</td>
<td>Mix</td>
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<td>4.0</td>
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<td>P</td>
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<td>2.91</td>
<td>0.56</td>
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<td>5.1</td>
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<td>Pa</td>
<td>na</td>
<td>8</td>
<td>5.36</td>
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<tr>
<td>Trinidad &amp; Tob.</td>
<td>PL</td>
<td>2</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
<td>Pa</td>
<td>na</td>
<td>3</td>
<td>2.23</td>
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<td>5.2</td>
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<td>11.4</td>
<td>P</td>
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<td>4</td>
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<td>2.0</td>
<td>7.6</td>
<td>P</td>
<td>1</td>
<td>5</td>
<td>4.73</td>
<td>0.24</td>
</tr>
</tbody>
</table>

Notes: District magnitude is the average number of representatives elected per district. Average district magnitude is the weighted average (weighted by the number of representatives in each house) of the district magnitude of the lower and upper house. The number of effective parties, Ns, is defined as $Ns = \sum s_i$, where $s_i$ is the proportion of representatives party i has in the lower house.

1 Following the constitutional reform of 1993 in Peru, there is only one electoral district and the congress has one single house. Only one election has been held under the new rules.

FIGURE 2.1

District Magnitude

a. Lower House

b. Upper House

(Countries with two-tier systems)

Note: Guyana has been excluded from the graph for presentational purposes. Its district magnitude is 43.4.
which the chief executive is chosen may have ambiguous consequences on the fragmentation of the political system. On the one hand, since large parties have a better chance of winning the presidency and this advantage is likely to carry over to legislative elections, presidential systems will likely have a smaller effective number of parties than nonpresidential systems of government, other things being equal. On the other hand, an independently elected chief executive might undermine party discipline: when the control of the presidency does not depend on parliamentary majorities, parties can afford greater internal dissent. 8

In Europe, most countries have parliamentary democracies. The opposite is true in Latin America, where 20 countries are presidential democracies and only six parliamentary. All PL systems are parliamentary democracies except Haiti, and all PR and mixed systems are presidential democracies, except Suriname.

Electoral Systems, Political Outcomes and Fiscal Performance

From the perspective of fiscal policy, why should we care about electoral systems? At first glance, the connection between electoral systems and fiscal performance appears remote. But this remoteness is only apparent. Electoral systems help shape important aspects of the political landscape, such as its degree of fragmentation, expressed in the number of parties represented in the legislature, and therefore the likelihood that the executive enjoys a majority in congress or has to form coalitions. These political characteristics may in turn affect fiscal performance.

How Do Electoral Institutions Affect Political Outcomes?

Proportional representation systems with large district magnitude allow a more exact mapping between the votes obtained by a party and the representation that party wins in the legislature. Consider an election in which the three main parties get 45, 40 and 10 percent, respectively. A first-past-the-post system may create a very large majority. In fact, if the vote is homogeneously distributed throughout the country, the first party would win all congressional races and seats. A system of proportional representation that elects only a few representatives per district (for example, two) would only allow the first two parties to obtain representation in the legislature, precluding the minority party with 10 percent of the vote from obtaining representation. By contrast, in a system of proportional representation where the number of representatives elected per district is large (for example, 100), the smaller party would obtain 10 seats in the legislature. In fact, the two smaller parties would even be able to form a coalition and control the parliament.

Proportional representation systems therefore allow a better representation for minorities to express their views through the political system. However, the inclusiveness of the PR system comes at a cost: the same electoral rules that allow minorities to be represented also create incentives for the system to produce a large number of parties. Systems with a high degree of proportionality, i.e., systems with large district magnitudes, tend to produce political structures with a larger number of parties than systems with a low degree of proportionality, such as first-past-the-post or plurality systems.

Figure 2.2 illustrates the relationship between district magnitude, which measures the average number of representatives elected per district for 26 Latin American and 15 European countries, and the number of effective parties that are represented in the legislature. The difference between the absolute number of parties in the legislature and the effective number is that the latter weights each party by its share of the vote in the legislature. For example, if there are two parties represented in the legislature, one with 90 percent of the seats and the other with 10 percent, the effective number of parties will be 1.2 rather than two. Only when the parties have an equal share of the seats in the legislature will the absolute and effective number of parties be the same.

Figure 2.2 shows that the relationship of district magnitude to the effective number of parties is very strong in both Latin America and Europe. In fact, the effect appears to be even stronger within Latin America. This is an important result because it signals that electoral systems, as aggregation rules, are bound to influence the nature of the coordination, credibility and agency problems that the fiscal system will have to resolve by affecting the number of relevant actors.

For example, electoral systems, by affecting the number of parties in the system, influence the likelihood of having a majority, a coalition or a minority government. Figure 2.3 shows that in Latin America the percentage of the seats that the executive enjoys in the legislature is very closely connected to the number of effective parties represented in parliament: the larger the number, the more
likely it is that the government will not enjoy a majority and will therefore either have to form a coalition or govern with weak support in congress.

The evidence for Latin America and the Caribbean indicates that countries with low district magnitude, such as the English-speaking PL systems, have a low effective number of parties and, in general, majority governments. Among the rest, those with larger district size tend to have a larger number of effective parties and governments that have less than 50 percent of the seats in the lower house.

Another interesting dimension connecting electoral institutions and political outcomes is the election of the executive in presidential democracies, i.e., whether there is only one round or two rounds of voting to elect the president depending on whether a candidate wins the absolute majority in the first round. This process, known as ballotage, encourages political factions to split into different parties in the first round, assuming that they may form electoral coalitions for the second round. Through this mechanism, the effective number of parties is likely to be larger. The 20 presidential democracies in Latin America are equally split between one and two-round voting. The respective absolute and effective number of parties is on average 10.5 and 3.7 in two-round systems, and seven and three in one-round systems, providing some evidence for the presence of this effect on the region (Table 2.1).

Electoral Systems and Fiscal Performance: Theoretical Considerations

The fact that district magnitude affects the effective number of parties, and the additional result that this latter variable influences the support that the executive has in parliament, are important in pointing out some of the channels through which electoral systems may affect fiscal behavior.

These results imply that other things being equal, PL or low DM systems are likely to be more decisive and stable because they will generate fewer parties and larger representation to the winning side. To the extent that these arrangements generate two-party systems, there will be competition to grab the political center, and hence parties will be less ideologically polarized. However, these three characteristics come at the cost of less inclusion into the political system. By contrast, high DM systems are more likely to suffer from gridlock, because with a larger number of parties it is harder to ensure control of congress. Furthermore, coalition governments tend to be less stable because, after all, they are formed by competing parties. Finally, the increased number of parties makes the center a less attractive political strategy and hence encourages wider ideological distances between the likely winners of the election. However, these political difficulties are a reflection of the fact that the system is trying to accommodate a wider diversity of preferences.

A large body of economic research has studied how fragmented political systems (e.g., divided governments, weak coalitions, polarization) influence fiscal performance. Although not unanimous, most of the evidence suggests that fragmentation tends to undermine fiscal discipline and accentuate the procyclicality of fiscal policy (Box 2.1). We can readily identify some of the potential channels through which this effect may operate. More constituencies may aggravate the commons problem.
Coalition members who expect to share power for shorter periods of time may not have incentives to take adequate account of the future, and hence may limit support for policies where the costs have to be paid immediately and the benefits deferred. Fiscal adjustment and the saving of booms are two examples of such policies. They may also cause delayed adjustment, because they expect other members to pay for the cost of those adjustments. Hence, coordination is likely to be a more challenging problem for the political system to deal with.

Political fragmentation may also affect fiscal performance through a credibility channel. More polarized political systems represent a larger risk of major policy changes, making current government commitments less credible. Weak governments may have less ability to commit to any policy strategy because they are less likely to be able to impose it or maintain it over time.

In summary, from the perspective of fiscal policy, electoral systems represent a tradeoff between the four major problems discussed above: aggregation, coordination, credibility and agency. Proportional representation systems with large district size represent a choice of a more inclusive aggregation system. However, by encouraging many parties and the formation of coalition governments, PR systems make coordination problems more difficult to solve, since more agents with diverse interests are involved in the fiscal decisionmaking process. To the extent that coalition governments are less stable—since coalitions often break and have to be formed again, and in parliamentary systems it often means a call for new elections—proportional representation systems will also reduce the ability of the current government to credibly commit to future policies, since the likelihood of a change in government is larger.

We have no priors as to the direction to which the degree of proportionality may affect agency problems. On the one hand, it is argued that FR systems with high DR may improve agency problems by giving representatives greater autonomy from local interests and therefore making the system more immune to “pork barrel” politics. On the other, these systems make agency problems worse by loosening the direct control the constituents have over their representatives.

Do Electoral Systems Matter for Fiscal Performance?

In Chapter 1 we studied some characteristics of Latin American fiscal systems, including size, deficits, debts, procyclicality and electoral budget cycles. How do we expect electoral systems to affect these performance dimensions?

Since systems with higher district magnitudes are more inclusive and can be expected to represent a broader spectrum of the electorate, it may be argued that they

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**Box 2.1. Political Determinants of Fiscal Performance**

A large body of economic research has tested the empirical relevance of political variables on fiscal performance. Most of the literature concentrates on the impact of political variables on fiscal deficits and debt accumulation as measures of performance.

Roubini and Sachs (1989), working with a sample of industrial countries, find evidence that countries characterized by governments with short average tenures and by the presence of many political parties in the ruling coalition tend to have larger deficits, particularly during periods of macroeconomic stress when fiscal adjustments are necessary. A reexamination of Roubini and Sachs by Edin and Ohlsson (1991) finds that it is minority governments rather than majority coalition governments that affect budget deficits.

Roubini (1991), using a sample of developing countries, finds that an index of political instability, measured by the frequency of government changes, appears to lead to larger deficits.

Grilli, Masciandaro and Tabellini (1991) test the impact on debt accumulation of three political characteristics: the type of government, i.e., single-party majority, coalition or minority; the durability of government; and an indicator of polarization as measured by significant changes in government. They find that lack of fiscal discipline is almost exclusively limited to proportional representation systems and that the one feature that appears to be responsible is the shorter duration of governments.

Alesina and Perotti (1995a) analyze the anatomy of fiscal adjustments in the OECD countries and find that permanent improvements are mainly implemented via cuts in expenditures, while temporary improvements are carried out almost exclusively via tax increases. They also find that coalition governments often try to make substantial fiscal adjustments, but are much less likely to carry out the expenditure cuts that make an adjustment successful.

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---
will lead to a larger sized government than low DM systems, since voters will entrust governments that represent them better with more responsibilities. On the other hand, since coordination and credibility problems are more difficult to handle when the degree of proportionality and the number of parties is large, PR systems with large DM can be expected to deliver less fiscal discipline (larger deficits and debt) and a less efficient and prompt response to shocks. We have no strong priors for the impact of the electoral system on the intensity of the electoral budget cycle.

Table 2.2 presents the evidence. We split the sample of countries into three uneven groups, those with high, medium and low DM, and characterize average performance within these three groups with respect to the different measures of aggregate fiscal performance: government size, fiscal deficits and debt, procyclicality, and the intensity of the electoral budget cycle. The ordering matches very closely our expectations: countries with a high degree of proportionality (high DM) have larger government size, deficits and debt, and are more procyclical than countries with a low district magnitude. The intensity of the electoral budget cycle does not show a clear pattern.

Figure 2.4 presents the results of the formal statistical analysis. The formal results confirm the conclusions derived from Table 2.2. Even when accounting for other determinants, electoral institutions—as characterized by the degree of proportionality of the electoral system—are significant in explaining cross-country differences in fiscal performance. Countries with large DM tend to have larger governments, higher deficits and debt and a more procyclical response to the business cycle. We found no statistical evidence that electoral budget cycles are more pervasive in high DM systems than in low DM systems.

The estimated statistical relationship indicates that the impact of electoral institutions on fiscal performance is potentially large in economic terms. A country with a district magnitude of 10 is expected to have government spending 3.5 to 5 percentage points of GDP above a country with a DM of one (a PL system). Similarly, a PR system with a DM of 10 is expected to have a budget surplus nearly 2 percent of GDP below, a debt-to-GDP ratio 30 percentage points above, and a degree of procyclicality 18 percentage points higher than an electoral system with a DM of one.

However, as we shall see in the next section, appropriate budget institutions, while unable to address other problems, can neutralize the effect of electoral systems on debts and deficits.

### Table 2.2. Electoral Institutions and Fiscal Performance

<table>
<thead>
<tr>
<th>Fiscal performance</th>
<th>District magnitude</th>
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<tbody>
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<td></td>
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<tr>
<td><strong>Budget surplus</strong></td>
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<td>Primary surplus</td>
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<td>Total surplus</td>
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<tr>
<td><strong>Debt</strong></td>
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<tr>
<td>Percent of GDP</td>
<td>0.59</td>
</tr>
<tr>
<td>Percent of government revenues</td>
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</tr>
<tr>
<td><strong>Size</strong></td>
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</tr>
<tr>
<td>Total government expenditures</td>
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<tr>
<td>Government expenditures (excl. social security and interest payments)</td>
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<tr>
<td>Government expenditures (excl. social security, interest payments and capital expenditures)</td>
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<tr>
<td><strong>Procyclicality</strong></td>
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<td>Government consumption</td>
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<tr>
<td>Inflation tax rate</td>
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<tr>
<td><strong>Electoral budget cycles</strong></td>
<td></td>
</tr>
<tr>
<td>Central government surplus (Avg. of electoral year minus avg. of post-electoral year)</td>
<td>-1.80</td>
</tr>
</tbody>
</table>

Notes: The procyclicality of government consumption is measured by the correlation coefficient between the cyclical component of government consumption and the cyclical component of output. An analogous calculation is performed for the inflation tax rate.

### Budget Institutions

Budget institutions are the set of rules and procedures by which budgets are drafted in the executive branch, modified and approved by congress and then carried out. They must facilitate identification of social preferences in terms of spending programs and acceptable taxes; allocate resources efficiently between expenditures, taking full account of the opportunity cost of taxes; avoid shifting the tax burden inefficiently or unfairly into the future; allow

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9 The regression results corresponding to the figures appear in Appendix A.
10 In this section we did not include budget institutions as a determinant of fiscal performance. This will be done in the following section. Their inclusion changes the results on debt and deficit in important ways.
an adequate response to shocks so as not to cause costly cyclical fluctuations; and maintain credibility and access to capital markets.

There are three dimensions in which the discussion of budget institutions can be organized: i) rules that impose constraints on the deficit; ii) procedural rules that govern the preparation of the budget in the executive branch, its approval in congress, and its execution; and iii) rules that affect the transparency of the process.

Constraints on the Deficit

Theoretical Considerations and International Experience

The first set of rules impose numerical constraints on the deficit, the best known example being balanced budget rules. Evidence from the 50 states of the U.S. suggests that constitutional constraints have significant effects on the size of deficits, as they can reduce the effects of politically induced biases toward deficits and spending.\footnote{See Eichengreen (1992).} However, balanced budget rules may be too rigid and may force a procyclical reaction to shocks and recessions.\footnote{Bayoumi and Eichengreen (1994) show that the procyclical nature of fiscal behavior in the 50 states of the U.S. is related to the presence of balanced budget rules.} In a volatile environment, balanced budget rules may be inadequate because they are insufficiently flexible. The rule would not force governments to save during boom years, but it would prevent them from borrowing in bad years. Hence it would impose a procyclical fiscal policy, thus aggravating cyclical management. In addition, balanced budget rules may be so restrictive that they generate strong incentives to circumvent them by...
means of creative accounting, which not only reduces their effectiveness, but also renders the budgetary process less transparent.\(^\text{13}\)

Rather than a balanced budget, fiscal constraints could require that deficits (or debt) be below a certain threshold. This is the kind of numerical rule with which countries in the European Union have to comply under the Maastricht Treaty. Countries are required to reduce deficits below 3 percent of GDP, and debt below 60 percent of GDP. Other more flexible constraints include the requirement that the deficit be consistent with a previously approved macroeconomic program.

It is important to understand the logic behind constitutional restrictions on debts and deficits. Constitutions have among other functions the role of limiting the power of a transitory majority. For example, civil, political and economic rights are considered inalienable and hence defined in a constitution, thus restricting the ability of the majority to decide on them. Deficits constitute postponed taxation. Constraining the deficit may be interpreted as a restriction on the power of the current congressional majority to bequeath a large debt onto other social groups who at present are in the minority. Hence, a constitutional rule restricts the choices that can be arrived at through simple majority voting.

Latin American economies are in great need of credibility enhancing arrangements, better provided by strict rules such as balanced budget provisions, but are also in need of flexibility, given their high volatility. The challenge is to design institutions that can improve on the tradeoff between credibility and flexibility.

### Latin American Experience

No Latin American country has balanced budget rules or other types of numerical fiscal constraints such as the ones in Maastricht. In those cases where constitutions or laws specify that expenditures cannot exceed the estimation of resources, this estimation is understood to include borrowing. In Costa Rica, the congress is currently considering adoption of a numerical fiscal rule as part of a wider reform of the budgetary process, in part geared toward controlling what was considered to be a serious political budget cycle.\(^\text{14}\) The proposal requires public sector deficits to be less than 1 percent of GDP and contemplates some exceptions in extraordinary situations that would take a two-thirds majority in congress to approve.

An alternative to a balanced budget rule that may achieve some of its benefits without many of the costs associated with excessive rigidity is a macroeconomic program requirement. In some countries in the region, the government is required to prepare a budget consistent with a previously approved macroeconomic program, often agreed upon with the central bank. These programs typically include targets for macroeconomic objectives such as the inflation rate, external balance, and the growth rate, as well as targets for policy instruments such as fiscal spending and the deficit, monetary expansion, and exchange rate policy. A macroeconomic program requirement may add some discipline to the budget process if it clearly identifies limits to the size of the budget and its balance compatible with other economic goals. The macro program can thus act as a formal restraint on the size of the deficit, while at the same time allowing for more flexibility. However, its effect on outcomes can be undermined if, during the approval process, congress has too much leeway to modify the budget presented by the executive. In about half of the countries in our survey, the macro program plays a sig-

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\(^{13}\) This argument has been made by Alesina and Perotti (1995b).

\(^{14}\) See Rodríguez (1995).
significant role as a prerequisite for the submission of the budget to congress.\(^{15}\)

Another way to introduce constraints on the size of the deficit is to change the sequencing of decisions in such a way as to make the legislature agree first on a binding ceiling for spending and borrowing before beginning discussions on the allocation of expenditures. The benefit of this sequencing is that when negotiations on allocation take place, one project becomes the opportunity cost of another, rather than projects being financed at the margin by more debt.\(^{16}\) The six countries in the region where congress sets a ceiling on government borrowing are Brazil, Colombia, Mexico, Peru, Trinidad and Tobago and Uruguay (for the case of government bonds). At the other end of the spectrum, in El Salvador, Guatemala and Honduras, the government is not subject to any borrowing constraints.\(^{17}\)

Some authors have recently argued in favor of assigning the responsibility of setting the government’s borrowing ceiling to an independent institution, which would have the same autonomy for setting these debt ceilings as an independent central bank has for defining monetary policy. Von Hagen and Harden (1995) suggested this arrangement for European countries, while Eichengreen, Hausmann and Von Hagen (1996) have made a proposal along similar lines, but specially tailored to the characteristics of Latin America. Borrowing ceilings could reflect the current state of the economy and would thus be more flexible than the balanced budget rule, while retaining much of the credibility of a rules-based arrangement, given the fact that the institution is mandated to preserve the stability of public finances and is sheltered from short-term political considerations through its statutory autonomy. None of the countries in the region have adopted this type of arrangement to date.

### Procedural Rules

#### Theoretical Considerations

As in the chicken and lobster problem, uncoordinated decisions may lead to excessive spending over the amounts desired by every participant. It is an inefficient equilibrium. One way out is to give a player some primary or agenda setting powers on the budget. In our example, having someone decide on the maximum cost of a plate may constrain individual decisions so that the group ends up choosing chicken.

Procedural rules can be distinguished in terms of whether they provide a more “collegial” or a more “hierarchical” decisionmaking process. Collegial rules give many players equal power, while hierarchical rules give some players advantage over others. In a cabinet setting, there are many spending ministers and a single finance minister. The former are judged by the quantity and quality of services they provide, not by the tax burden they impose. Collegial rules that give equal vote to all ministers on budgetary matters are bound to lead to higher spending and deficits than rules that give primacy to the finance ministry. A similar dynamic can take place between the executive branch and congress. Single district deputies may push for programs that benefit their constituency, while the executive branch might internalize the overall constraints.

These rules are clearly codified in most countries. Can the executive unilaterally determine the maximum overall size of spending and deficits? Can congress or parliament be restricted only to cut and not to increase spending or deficits over the amount chosen by the executive? Can the executive unilaterally determine the maximum overall size of spending and deficits? Can congress or parliament be restricted only to cut and not to increase spending or deficits over the amount chosen by the executive? Can the executive unilaterally determine the maximum overall size of spending and deficits? Can congress or parliament be restricted only to cut and not to increase spending or deficits over the amount chosen by the executive?

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\(^{15}\) Country-by-country information on this and other aspects of budget institutions is presented in Appendix D.

\(^{16}\) Ferejohn and Krehbiel (1987) have argued that the order of voting does not have a clear effect on the outcome of the budget.

\(^{17}\) In the rest of the countries, borrowing either is presented by the government and approved together with the budget, or congress approves each borrowing operation individually.
executive? Can there be a decision on these magnitudes before deciding on the allocation, so that the opportunity cost of an additional project becomes another project and not just more spending and more deficits? These types of arrangements might contain the commons problem.

However, these arrangements may not contain the dynamic commons problem in the sense that neither hierarchical nor collegial structures have the right incentives to save current windfalls in order to protect a future in which the current executive or parliament may still not be in power. Moreover, hierarchical structures may aggravate the agency problem in the sense that they give an agent greater discretion to carry out his private agenda. Hence, strong hierarchical institutions may not solve the electoral budget cycle because the executive may have a vested interest in using the budget for electoral purposes.

### Procedural Rules in Latin America

We first focus on whether the region’s rules are hierarchical or collegial during the budget preparation stage, which typically involves the finance minister and the spending ministers. Obviously, institutions will be more hierarchical when more power is concentrated in the figure of the finance minister. At this stage, the single most important issue is whether the finance minister has, both formally and in practice, more authority than the rest of the ministers with respect to the budget discussions. This is the case in the great majority of the countries in the region, with the exception of Brazil and the Dominican Republic. Peru was another exception until 1990, when several important aspects of budget institutions were reformed. In most countries, the greater authority of the finance minister is seen in his power to veto expenditures proposed by the other members of the cabinet.

After the budget is drafted by the executive branch, it is sent to congress for its approval. Here again, procedural rules determine the relative power between the executive and congress during this stage of the budgetary process. One key question is that of the prerogatives that congress has to modify the proposed budget. The hierarchical type of arrangement is one in which the congress can delegate the composition of the budget, shifting expenditures across budget items, but has no power to modify the overall size of the budget or the deficit.

This is the current situation in several countries, such as Peru and Venezuela. In Chile, congress can only cut but not increase individual expenditures, even if it can pay for them through reallocations. In a number of countries, congress can increase spending only with the approval of the government. In such cases, changes in the

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**Table 2.5. Debt Ceiling Constraints on the Budget Process**

<table>
<thead>
<tr>
<th>No constraints: government borrows if shortfalls</th>
<th>Congress approves each operation</th>
<th>Ceiling set by the government</th>
<th>Ceiling set by congress</th>
<th>Congress approves borrowing together with budget</th>
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- • indicates no constraints.
- • (foreign debt) indicates constraints on foreign debt.
- • (domestic debt) indicates constraints on domestic debt.
size of the budget can be negotiated, and the legislature can agree to pass other legislation proposed by the government in exchange for increases in the budget. In Argentina and Mexico, the congress cannot increase the deficit, but has no restrictions regarding spending. This leaves a loophole for the legislature to amend the budget by increasing the expenditure level, and at the same time pass legislation creating new revenues (more or less “real”), which might then fall short of expectations, resulting in the end in larger deficits. A number of countries, among them Bolivia, Guatemala and Paraguay, have no restrictions on the power of congress to modify the budget. Peru and Argentina were in this category until they reformed their budgetary processes in 1990 and 1992, respectively.

What happens if congress rejects the budget, or does not approve it within the constitutionally established time frame? Even in countries where the budget has always been approved on time, different rules in the event of rejection may result in different outcomes of the budgetary process. The weaker the relative position of the government on this issue, the greater the incentives to propose a budget that is more likely to be approved.

### Table 2.6. Authority of the Finance Minister in the Drafting Stage

<table>
<thead>
<tr>
<th>Congress can only propose amendments:</th>
<th>Considerably greater than other ministers (formally and in practice)</th>
<th>Somewhat greater than other ministers (formally but not in practice)</th>
<th>Equal or almost equal to other ministers</th>
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### Table 2.7. Scope of Amendments by Congress

<table>
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<tr>
<th>Congress can only propose amendments:</th>
<th>That do not increase the deficit</th>
<th>That do not increase spending</th>
<th>That do not increase either the deficit or spending</th>
<th>With the government's approval</th>
<th>No restrictions</th>
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Here again, institutional arrangements vary substantially across countries. An extreme hierarchical case, which applies to several countries in the region, is one in which congress can modify but not reject the budget proposal, and if congress fails to approve it in time, the original government proposal is adopted. This is the case in Chile, Costa Rica, Ecuador, Jamaica, Nicaragua and Peru. In most countries, the previous year’s budget is enacted, with the government (or in some cases, congress) redistributing spending between items. Some countries, such as Colombia or Panama, have different rules depending on whether the budget was rejected (in which case the previous year’s budget is adopted) or not approved on time (in which case, the one proposed by the government is enacted).

Under another arrangement, the government has to submit a new budget, which is the case in Brazil and Honduras. This has the disadvantage that the approval process can be subject to protracted negotiations between the executive and congress, which can lead on occasions to delays in adjustment to critical fiscal situations or to the simple absence of any approved budget; for much if not all of the fiscal year. In Mexico and the Bahamas, no funds may be expended until the budget is agreed upon. In the case of the Bahamas, the government resigns if an agreement is not reached. In terms of the balance of power between the government and congress, this drastic possibility could go either way. One could argue that, since rejection is very costly for the country, the legislature would have incentives to come to an agreement on the budget. On the other hand, this institutional arrangement may induce the government to propose a budget that is more palatable to congress.

During the third stage of the budgetary process—budget execution—a relevant question is whether the budget can be revised upwards after legislative approval, and on whose initiative. The only country where the budget cannot be modified during the fiscal year is Uruguay, which also happens to be the only country with multi-year budgets. In Bolivia and Guatemala, congress has the initiative to increase the budget. In the rest of the countries, the initiative falls on the government. In some cases, laws specify limits to the budget revisions. For example, in Ecuador the government has the prerogative to increase the budget up to 5 percent without congressional approval, and up to 10 percent with approval.

Another important dimension is whether the government can cut the budget unilaterally during execution. As we shall see below, this provision cuts both ways.

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18 The multiyear budget in Uruguay may be modified annually through the Ley de Rendición de Cuentas, but cannot be modified during the fiscal year.
While it may strengthen the hand of the executive in the short run, it may also distort the overall budgetary process by making it less transparent.

Rules That Ensure Transparency

Theoretical Considerations

The word in Spanish for budget is presupuesto. This can be thought of as a composite word: supuesto means assumption. Hence, presupuesto can be thought of as a pre-assumption or, equivalently, as an assumption squared. Rules and negotiations that are based on assumptions can be circumvented by manipulating expenditure and revenue estimates. If the government wants to hide a deficit, it can always overestimate revenues or underestimate debt service. A strong and prudent finance minister may want to hide expected revenues in order to assure a better fiscal result. However, congress can react by underfunding precommitted expenditures, such as debt service, and allocating the resources to new programs. Once revenues actually materialize, the minister will be forced to use them for the underfunded items.

This is one reason why lack of transparency matters: it can cause a breakdown of the negotiation process, because all sides use estimates in a strategic manner. Another implication is that lack of transparency may aggravate the agency problem because actions become less visible.

The budget is often not a single instance of annual allocation. There is the possibility to amend the budget during execution. If there is significant flexibility to make amendments, spending ministers have incentives to overcommit their budgets in order to force additional allocations. Aizenman and Hausmann (1995) provide evidence that such a process takes place in Latin America. These authors study the budget forecast errors and find that as inflation and the volatility of economic activity rise, so does the systematic underestimation of the budget. They explain this observation as an outcome of strategic interaction between two players: the finance minister and the spending ministers, or alternatively, the executive and congress. Spending ministers, who know more than the finance minister about the true cost of government programs, will report only cost-increasing shocks to the finance minister and ask for additional funds, but will keep the windfall profits of cost-reducing shocks. Anticipating this, the finance minister has an incentive to underestimate the initial allocation in the budget, and this tendency increases when volatility rises. Hence, inflation and volatility reduce the ability of the budget process to impose fiscal discipline.

An additional problem arises because of the incompleteness of the budget process. Off-budget items, con-
tingent claims on the budget by subnational governments, public enterprises and the banking system may hide from public discussion important allocative decisions and limit the ability to constrain agents who benefit from them.

In this context, an important issue is whether other public agencies, through their borrowing procedures, have the potential to complicate the government’s budget. This may happen if the government typically assumes the responsibility of debt originally contracted by other public agencies, and if these agencies (for example, public enterprises) have considerable autonomy to borrow. This creates a moral hazard problem since public agencies may borrow on the expectation that they will eventually be bailed out. A similar pattern of behavior may be present in the banking system.

**Transparency in Latin America**

In most countries, taking responsibility for debt contracted by other public agencies has been common, indicating that bailout risk is a problem. Countries differ on the frequency with which these events occur, and on whether it happens just for debt that has been guaranteed by the government, or regardless of the guarantee. The countries where these events are frequent and cover even nonguaranteed debt are Ecuador, Peru and Venezuela. In most countries, public enterprises cannot borrow autonomously, but require the approval of the government or congress. The exception is the Dominican Republic, where borrowing is autonomous. The same was true of Argentina until 1992, but public enterprises now require government approval. In Chile, public enterprises cannot borrow at all. The question of borrowing by subnational governments is extremely important, but we will discuss it in the next chapter, along with the issue of decentralization.

Are the budgets all inclusive? Or are there special funds not included in the budget? More than half of the countries in the region have special funds not included in the general budget, which undermines the transparency of the budgetary process. These special funds are insignificant in several countries, but are quite substantial in countries like El Salvador and Uruguay. In the case of the latter, these funds represent approximately 10 percent of the budget and are channeled to various decentralized agencies, which have considerable authority how they are spent.

Can the government cut the budget unilaterally during budget execution? This question cuts across the hierarchical/collegial and transparency dimensions. Intuitively, it would seem that if the government can cut the budget at its discretion, fiscal discipline will be enhanced. However, it is also possible that, in such cases, the government will not have incentives to submit a small budget.

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<tr>
<th>Country</th>
<th>Exceptionally</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Only guaranteed debt</th>
<th>Including nonguaranteed debt</th>
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<td>Nicaragua</td>
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<td>Panama</td>
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<td>Paraguay</td>
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<td>Trinidad &amp; Tobago</td>
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<td>Uruguay</td>
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<td>Venezuela</td>
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And later on, it may be difficult to cut it even if this was intended from the beginning. In addition, the executed budget might not reflect the spending priorities implicit in the budget passed by the legislature. In this case, the budgetary process becomes less transparent and less meaningful as a way to allocate scarce resources among competing spending programs. The countries where the government has complete discretion to cut spending during the execution of the budget are the Bahamas, El Salvador, Paraguay and Trinidad and Tobago. There is more transparency if the government can cut expenditures only when revenues are lower than projected, which is the case in many countries in the region. In Panama and Peru, the budget cannot be cut at all, which seems a very inflexible solution.

Index of Budget Institutions

On the basis of the characteristics described above, we constructed an index of budgetary institutions (IBI) that captures the extent to which the budgetary process in the different countries is subject to fiscal constraints and is hierarchical and transparent. The average value of the index for each country for 1990-95 is presented in Figure 2.5.

Do Budget Institutions Matter for Fiscal Performance?

Do better budget institutions as reflected in a higher index of budgetary institutions affect fiscal performance? Based on the preceding discussion, we expect countries that have a higher IBI to display relatively smaller spending and lower fiscal deficits and public debt.

Procyclicality may be a different matter. Constraints that enhance credibility in the commitment to fiscal discipline may improve the willingness of markets to lend in bad times, but might hamper the ability of the authorities to react in an efficient manner to shocks. Moreover, hierarchical institutions, by increasing the discretionality of the executive and the finance minister, may not empower agents that have incentives to properly discount the future.

For the same reason, we also have no strong priors

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19The IBI is based on a survey conducted by the Inter-American Development Bank that gathered information for 20 countries in Latin America and the Caribbean on the drafting, approval and execution of the budget. The index is similar to the one in Alesina, Hausmann, Hommes and Stein (1996), but adjusted for the 1990-95 period. Details about construction of the index are provided in Appendix A.

20 For example, a period-by-period balanced budget rule would prevent the government from running a deficit during recessions, and therefore make it unnecessary to run surpluses during expansions, introducing procyclicality in the fiscal response.
with respect to the direction of the impact of better budgetary institutions on the electoral budget cycle. On the one hand, they help control the commons problem that can worsen during election years. On the other, by granting more authority to the finance minister within the executive and to the executive relative to parliament, they can make it easier for the executive to strategically use fiscal policy for electoral reasons.

Table 2.12 splits the sample of countries into three uneven groups, those with high, medium and low IBI, and characterizes average performance of these three groups with respect to government spending, fiscal deficits and debt, procyclicality and the electoral budget cycle. Countries with better budgetary arrangements governing the fiscal decisionmaking process have lower deficits and stocks of debt. However, they tend to be more procyclical in their policy response. Furthermore, countries with low IBI appear to have a more intense electoral budget cycle.

With respect to deficits and debt, the differences between the group of countries with high and low IBI is striking: countries with high IBI have average primary surpluses that are 4 percent of GDP and debt-to-revenue ratios that are half the size of those observed in countries with low IBI.

The picture that emerges from Table 2.12 with respect to the size of government is less conclusive. When the size of government is measured by total expenditures of the consolidated public sector, the different groups do not differ in any meaningful way. The ordering turns out as expected only with a measure of government spending that excludes interest payments and social security benefits: countries with better budgetary arrangements have a smaller size of government. In the latter case, countries with low IBI have government expenditures that are 2 percent of GDP greater than countries with high IBI.

The formal statistical analysis performed confirms to a large extent the evidence presented in Table 2.12. Even when accounting for other determinants of fiscal deficits and debt levels, the index of budget institutions is significant in explaining cross-sectional differences. In contrast, countries with high IBI tend to behave more procyclically, although the results are less powerful. We were unable to find a significant statistical relationship between the size of government and the index of budgetary institutions, once other determinants of size are ac-

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**Figure 2.5**

**Index of Budgetary Institutions**

(Scale between 0 and 1)

<table>
<thead>
<tr>
<th>Country</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>0.76</td>
</tr>
<tr>
<td>Jamaica</td>
<td>0.75</td>
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<td>Chile</td>
<td>0.73</td>
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<td>Mexico</td>
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<td>Panama</td>
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<td>Uruguay</td>
<td>0.62</td>
</tr>
<tr>
<td>Trinidad &amp; Tob.</td>
<td>0.58</td>
</tr>
<tr>
<td>Bahamas</td>
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<td>Argentina</td>
<td>0.57</td>
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<td>Ecuador</td>
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<td>Paraguay</td>
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<tr>
<td>Venezuela</td>
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<tr>
<td>Bolivia</td>
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<tr>
<td>Dominican Rep.</td>
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</tr>
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</table>

**Table 2.12. Budget Institutions and Fiscal Performance, 1990-95**

<table>
<thead>
<tr>
<th>Fiscal performance</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget Surplus¹</td>
<td>0.06</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Total surplus</td>
<td>0.01</td>
<td>-0.01</td>
<td>-0.03</td>
</tr>
<tr>
<td>Debt¹</td>
<td>0.45</td>
<td>0.54</td>
<td>0.65</td>
</tr>
<tr>
<td>Percent of GDP</td>
<td>1.50</td>
<td>2.43</td>
<td>3.05</td>
</tr>
<tr>
<td>Percent of total revenues</td>
<td>0.26</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>Size¹</td>
<td>0.19</td>
<td>0.18</td>
<td>0.21</td>
</tr>
<tr>
<td>Public sector expenditures</td>
<td>0.14</td>
<td>0.13</td>
<td>0.14</td>
</tr>
<tr>
<td>(excl. social security and interest payments)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public sector expenditures</td>
<td>0.58</td>
<td>0.59</td>
<td>0.39</td>
</tr>
<tr>
<td>(excl. social security, interest payments and cap. exp.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procyclicality²</td>
<td>-1.06</td>
<td>-0.83</td>
<td>-1.56</td>
</tr>
<tr>
<td>Government consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electoral budget cycles</td>
<td>-1.06</td>
<td>-0.83</td>
<td>-1.56</td>
</tr>
</tbody>
</table>

¹ Consolidated public sector, including central government, social security system, public enterprises and local governments.
² The procyclicality of government consumption is measured by the correlation coefficient of the cyclical component of government consumption and the cyclical component of output.

Source: IMF, Recent Economic Developments.

See Appendix B for the regression results.
The IBI was not a significant factor in explaining the intensity of the electoral budget cycle. From a quantitative point of view, the impact of budget institutions on debts and deficits is large in economic terms. As Figure 2.6 illustrates (and the formal estimations confirm), a country with an IBI of 0.45 is expected to have an average budget surplus nearly three percentage points of GDP below that of a country with an index of 0.65. The quantitative impact is even stronger for the primary budget surplus than for the overall surplus. A country with an IBI of 0.45 is also expected to have a debt-to-GDP ratio 20 percentage points higher than a country with an IBI of 0.65. The degree of procyclicality (as measured by the correlation coefficient between the cyclical components of government consumption and output) is expected to be 0.20 higher in a country with an IBI of 0.65 than in a country with an IBI of 0.45.

The empirical literature on budget institutions and fiscal performance has consistently found an impact of budget institutions on fiscal deficits and debt, but almost consistently has failed to find an association with government size (see Von Hagen and Harden, 1995, and Alesina, Hausmann, Hommes and Stein, 1996).
We asked earlier whether institutional arrangements matter for fiscal performance. This is the summary of our findings:

• Electoral systems are an important factor in explaining government size, but budgetary institutions are not.

• Budgetary institutions are a very important factor in promoting fiscal discipline, regardless of the type of electoral system a country has. Furthermore, good quality budgetary arrangements can neutralize the potentially undermining effect of proportional representation systems on fiscal discipline.

• Electoral systems and budgetary institutions are important determinants of the degree of procyclicality, i.e., the business cycle response of fiscal policy. Fractionalized political systems, i.e., systems with a high number of effective parties and coalition or minority governments, behave more procyclically over the cycle. More hierarchical budgetary institutions, although they help promote fiscal discipline on average, do not appear to contribute to a less procyclical fiscal response.

• The intensity of the electoral budget cycle does not appear to be systematically related to either the prevailing electoral system or the quality of budgetary arrangements.

The preceding discussion should not lead to the conclusion that electoral and budgetary institutions are the only types of institutions that impinge on fiscal soundness. Monetary institutions and exchange rate arrangements may also be instrumental for better fiscal outcomes. Thus, it is well known that an independent monetary authority may restrain the government from pursuing short-term expansionary policies. A commitment to an exchange rate peg has also been considered in the literature as a potentially useful disciplinary device, though this is a much more polemic statement (Box 2.2).

We can now turn to the implications of our findings for the policy agenda of institutional reform in Latin America.

IMPROVING FISCAL PERFORMANCE: UNFINISHED PROBLEMS

As we have seen, strong budget institutions seem to control the bias towards debt and deficit. This is an important finding because it points towards an institutional reform agenda capable of permanently affecting fiscal performance. More hierarchical budget institutions that grant more power and responsibility to the finance minister (vis-à-vis other ministers) and to the executive (vis-à-vis congress) in determining aggregate spending and the fiscal deficit can contain deficit bias and lead to permanent and meaningful improvements in fiscal discipline. However, we have found that Latin American countries with strong budget institutions still suffer from procyclicality and electoral budget cycles. Hence, it is also important to come up with ideas to crack these remaining problems.

With respect to deficit bias, the findings in this chapter suggest some institutional design principles that should be taken into account. In general, deficit bias can be limited by providing key players with veto power over increases in spending and borrowing during budget approval and with some discretion to cut spending during execution.

Within the executive, the finance minister should be given the power to veto spending initiatives, especially when they are meant to be paid through an increase in the deficit target. The minister should also be empowered to propose spending cuts when the fiscal targets are likely to be exceeded. The executive should be empowered to enact these cuts without the need for congressional approval.

Congress should not be empowered to increase expenditures or the deficit over the amount proposed by the executive. However, it should be able to cut the proposed budget. If congress has a role in determining the size of the budget, it should be in the form of approving the spending and borrowing ceiling proposed by the government and set prior to discussions regarding allocation of the budget. It is important that budget size be determined before composition. In this way, the opportunity cost of a spending program will be another program, rather than a larger deficit, thus changing the configuration of possible coalitions that may form to pass increased spending.

Congress should also have incentives to limit gridlock and come to an agreement on the budget. This can be achieved by adopting a deadline date clause benefiting the executive that states that if the budget is not approved by a certain date, the original budget proposal becomes law.

Hierarchical arrangements may limit deficit bias but still be behind the yet unsolved problems of procyclicality and electoral cycles. For example, electoral budget cycles can be explained as caused by an agency problem. As discussed, governments may exploit the public’s difficulties in distinguishing between healthy growth and an unsustainable fiscal boom. This problem may be aggravated by hierarchical structures that give much power to
This chapter primarily focuses on the impact on fiscal outcomes of the institutional arrangements that surround the budgetary and electoral processes. While it is only fairly recently that economists and policymakers have begun to appreciate the importance of these linkages, they have long debated the impact of a monetary institution—the exchange rate regime—on fiscal outcomes. Some economists and policymakers have, in particular, argued that fixed exchange rates are more conducive to fiscal discipline than are flexible exchange rates.

The argument that fixed exchange rates promote fiscal discipline begins with a proposition that commands universal consensus: some measure of fiscal discipline is required to maintain a fixed exchange rate. In the absence of this discipline, the fixed exchange rate system will survive for a while but eventually need to be abandoned. More controversial is the idea that once economic policymakers commit themselves to a fixed exchange rate, they will therefore be induced to manage fiscal policy in the disciplined manner required for the exchange rate regime to survive.

While not universally accepted, this line of reasoning has led some analysts and policymakers to promote fixed exchange rates as an institutional mechanism to promote fiscal discipline. For example, the commitment to a fixed exchange rate in Argentina has been credited with the country’s much more disciplined fiscal stance in the 1990s. Currency arrangements similar to those of Argentina have been proposed for Bulgaria, with the aim of reducing that country’s large fiscal deficits, and a similar system was briefly considered for Ecuador in early 1996.

A counterargument to this line of reasoning has recently been made by Tornell and Velasco (1995). They point out that fiscal indiscipline eventually generates inflation both under fixed and flexible exchange rates. The main difference is that while inflation will emerge immediately under flexible exchange rates, as the associated monetary expansion leads to a depreciation of the exchange rate, it will emerge only after a potentially long lag under fixed exchange rates, since the exchange regime can be defended for some time by selling foreign exchange reserves, and inflation only arrives when the regime collapses and the exchange rate is devalued. They thus argue that impatient policymakers will tend to choose higher budget deficits under fixed exchange rate regimes, because the inflationary cost of doing so is delayed.

What is the evidence? It is clear that inflation tends to be lower and less volatile under fixed exchange rate regimes than under flexible regimes (see Edwards, 1992, and Ghosh et al., 1997). However, as the Tornell-Velasco logic highlights, this may simply reflect the fact that inflation is delayed, not reduced in a sustainable manner, by fixed exchange rates. The answer to this question depends in large part upon whether fiscal policy is more disciplined under fixed or flexible exchange rates. Gavin and Perotti (1997) examined the Latin American experience, and found that fiscal deficits tended to be substantially larger under fixed exchange rates—some of their estimates suggest an impact of over 2 percent of GDP—and the association was very strong in statistical terms. Tornell and Velasco studied 12 stabilization programs in Latin America and found that, in cases where fiscal tightening was not achieved prior to the program, exchange rate based stabilizations typically failed to achieve fiscal adjustment after their implementation, in contrast with money based stabilizations, suggesting that the exchange rate commitment implied by the former stabilization strategy per se did not promote fiscal discipline. These results are not definitive, and further research is required. In particular, the results do not rule out the possibility that exchange rate commitments may contribute to maintain fiscal discipline once it has been achieved. However, the evidence to date suggests that a strong reliance upon an exchange rate commitment to produce a consensus for fiscal discipline may be a risky strategy.
order to increase spending on its desired projects. This would be formally consistent with the rules, but would imply an effective increase in the deficit. Similarly, the executive may overestimate revenues in an election year in order to justify a more expansionary fiscal policy.

One way out of this problem is to create an autonomous scorekeeper. Such an institution would be mandated to make estimates of government revenues and precommitted expenditures and to monitor and make public information on budget execution. It could also be asked to give its opinion on the adequacy of the fiscal stance from the point of view of sustainability. If endowed with statutory autonomy it may be sheltered from short-run political pressures, thus increasing its credibility. The U.S. Congressional Budget Office (CBO) and the New Zealand Treasury under the Fiscal Responsibility Act of 1994 play a function similar to the scorekeeper we describe (Box 2.3).

During an election year, the information provided by the scorekeeper to congress, the markets and the general public about fiscal expenditures and commitments would make the political process aware of the nature of the fiscal stance, increasing its ability to keep the government honest. Bond markets can play a similar disciplining role.

Let us now turn to the issue of procyclicality. We have argued, both in the previous chapter and this one, that governments may be forced to adopt contractionary policies in bad times because markets are unwilling to finance the deficits that would result from a more stabilizing response. This market reaction is due to the lack of credible commitment to eventually generate a surplus sufficient to pay back the additional debt. Markets may not know the nature of the fiscal shortfall. Is it only a temporary phenomenon that will be reversed automatically, without the need for major tax or expenditure adjustments? Or is the government simply trying to postpone the pain?

The scorekeeper may be able to help in this process. This institution could calculate an underlying or cyclically adjusted fiscal deficit in order to determine the longer-term sustainability of the fiscal stance. The cyclically adjusted deficit should include corrections for the position of the terms of trade, the real exchange rate, the current account and any other fiscally relevant variable that is perceived not to be at its long-run level. Consideration should be given to any factor or process that would cause the current deficit to be different from the one that would be obtained in the future if current fiscal policies were maintained.

This calculation would signal to markets the nature of the current deficit and would serve as valuable information in determining whether the government’s financial demands are an efficient use of its borrowing capacity, or if instead they reflect an attempt to postpone inevitable adjustments. In this sense, the scorekeeper might solve the asymmetric information problem pointed out by Saint-Paul (1994). A good government may have trouble borrowing in bad times because, given the public’s lack of good information, it cannot distinguish itself from an irresponsible one. Hence, it may be forced to use a procyclical reaction as a signaling device of its commitment to fiscal prudence. The scorekeeper may reduce the need to use this inefficient signal.

Obviously, the calculation of a cyclically adjusted deficit involves a lot of discretion and judgments. It is easy to distort the assumptions in order to achieve any desired result. That is one more reason to provide the scorekeeper with credible institutional autonomy. Otherwise, it will be perceived as exploiting its discretion over budget assumptions to further some political agenda. Even in the United States, it has been argued that since the majority party in congress names the head of the CBO, the office serves to further the political agenda of that party. Super-majority rules for the election of the authorities, the use of boards instead of a single head, and other institutional design elements can be adjusted to give credibility to the autonomous status of the scorekeeper. In a manner consistent with the political culture and structure of each country. Furthermore, credibility of the scorekeeper might be enhanced by making it accountable to congress, to which it must report on the causes for the deviation between ex-ante estimates and ex-post results.

Open discussion of numbers and methods, with healthy oversight by the economic academic community and from the International Monetary Fund in the context of the annual review process, may create additional incentives to keep the numbers honest.

The scorekeeper may also be helpful in improving fiscal sustainability. Under arrangements that are common in Latin America, it is possible for fiscal policies to become unsustainable, since budgetary allocations tend to be annual in nature while many of the details imply de facto longer-term commitments, the implications of which are seldom worked out. The decision to build a school, hospital or road involves future current expenditures to operate and maintain those assets. Expansions in one level of education today will require additions in the installed capacity of the next level of education tomorrow. Borrowing this year implies a debt service pro-
file for the following years. Particularly important in this context are the unfunded pension liabilities of the public sector and of the public system. These liabilities are based on entitlements whose actuarial soundness has often been lacking, but the budgetary process has not uncovered the rising implicit debts.

At the same time, it may not be possible to continue to raise taxes in line with planned expenditures. If the tax system is not well structured, revenues may not rise adequately. For example, new growing sectors might have been granted tax holidays, while taxes might be coming mostly from a few sectors that show little dynamism or are vulnerable to external shocks. This combination of implicit medium-term commitments and uncertain or inadequate expected revenues can lead to an unsustainable fiscal stance.

To track the intertemporal soundness of policy and avoid the perils of unsustainable intergenerational redistributions, the scorekeeper should be required to prepare formal medium-term budgetary impact studies to accompany the annual budget. These documents should assess whether current explicit and implicit expenditure com-

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Box 2.3. New Zealand’s Fiscal Responsibility Act

The Fiscal Responsibility Act was passed by the New Zealand Parliament in June 1994. The act has five objectives:

- Increase the transparency of policy intentions and the economic and fiscal consequences of policy;
- Bring a long-term (as well as an annual) focus to budgeting;
- Disclose the aggregate impact of a budget in advance of detailed annual budget allocations;
- Ensure independent assessment and reporting of fiscal policy;
- Facilitate parliamentary and public scrutiny of economic and fiscal information and plans.

Part of the motivation for the act was to address New Zealand’s history of poor fiscal performance, reduce public debt, and improve fiscal management. The government also wanted to reassure debt holders and the wider public that fiscal performance had changed for the better, and that this improvement would last. This reassurance was important because New Zealand was changing its electoral system from a first-past-the-post to a mixed member proportional system. This shift created inherent uncertainty over future fiscal management, which the Fiscal Responsibility Act served to assuage.

Earlier reforms in the public sector, in particular the State-Owned Enterprises Act of 1986 and the Public Finance Act of 1989, changed the basis of accounting in the public sector and required financial statements to be prepared under generally accepted accounting practices (GAAP). GAAP is a set of accounting rules set independently from the government.

Administrative practice had also increased the transparency of the fiscal position and extended the period for budget reporting from one to three years. The Fiscal Responsibility Act built on these developments, changing many existing practices into requirements for the government and extending some requirements (for example, requiring fiscal forecasting on a GAAP basis).

The act requires the government to follow a legislated set of principles of responsible fiscal management, and to publicly assess its fiscal policies against these principles. The government may temporarily depart from the principles but must do so publicly, explain why it has departed, and reveal how and when it intends to conform to the principles through the following means:

- Publish a budget policy statement well before the annual budget containing strategic priorities, short-term fiscal intentions, and long-term fiscal objectives. A fiscal strategy report that compares budget intentions and objectives with those published in the most recent budget policy statement must be published on budget night.
- Fully disclose the impact of fiscal decisions over a three-year forecasting period in regular economic and fiscal updates.
- Present all financial information under GAAP.
- Require the Treasury to prepare forecasts based on its best professional judgment about the impact of policy, rather than relying on the judgment of the government. The minister is also required to communicate all the government’s policy decisions to the Treasury so that the forecasts are comprehensive.
- Refer all reports required under the act to a parliamentary select committee.

These requirements mean that the government has to be transparent about both its intentions and the short- and long-term impact of its spending and taxation decisions. Such transparency is likely to lead governments to give more weight to the longer-term consequences of their decisions and, therefore, is likely to lead to more sustainable fiscal policy. This increases the predictability of fiscal policy settings, which in turn helps promote economic growth and gives people a degree of certainty about the ongoing provision of government services and transfers.

mitments are in line with expected revenues, given the existing tax structure and prudent borrowing plans. They should also evaluate the amount of risk from possible shocks that is implicit in the fiscal stance. Moreover, the scorekeeper should estimate the short- and medium-term impact of budget reallocations made by congress.

Better information and transparency may be enough in some cases to improve the procyclicality and electoral budget cycle problems. If the political and bond markets can provide sufficient discipline, better information may force all budget players to behave in a collectively responsible manner. Other countries may want to go a bit further. If the budget is subject to large shocks and the political system is fragmented, the risk of a collapse in credibility because of fears of delayed adjustment may imply that markets will be very volatile, especially when there are signs of the need for difficult political agreements to deal with a fiscal gap. Also, such conditions may aggravate the dynamic commons problem by making it more difficult to save resources for a rainy day. Such countries may want to tie their hands a bit more in order to increase their credibility.

However, how to go about such a strategy? To attempt to achieve more credibility through tougher constraints on the deficit is dangerous. We have argued that high volatility makes balanced budget rules both inadequate and unworkable at the national level, leading to either procyclical fiscal reactions or creative accounting. One way of increasing the credibility of fiscal commitments is to limit the borrowing authority of the elected officials not to a simple constant number established in the constitution, but to a number calculated by an accountable autonomous institution that can make judgments about what number is most appropriate given the circumstances. This is the idea behind the National Debt Board proposed by Von Hagen and Harden (1995) for European countries and the National Fiscal Council (NFC) proposed by Eichengreen, Hausmann and Von Hagen (1996) for Latin America. It can be thought of as a scorekeeper with enhanced powers. Not only will it calculate current and estimated future deficits and give them meaning by separating cyclical effects from longer-term considerations, but it would also be empowered to set a maximum allowable deficit that congress and the executive could authorize. In other words, the maximum allowable deficit calculated by this institution would constitute a constraint on the political process, albeit a more flexible one than a traditional balanced budget rule.

The NFC is related to the Tax Boards that exist in several states in the U.S. As mentioned above, most states have balanced budget rules. To enforce such rules, legislatures are given the power to set spending, but the rate on the core tax—typically the sales tax—is set by an independent Tax Board in charge of making sure that spending commitments are fully paid for. Here again, the independent power of the Tax Board makes the commitment to fiscal balance credible and increases the transparency of the budget process by preventing strategic overestimation of revenues and forcing legislators to face up to the tax costs of their spending programs.

The NFC may be more appropriate at the national level because, as we have argued, given the volatility of fiscal revenues in Latin America, a balanced budget rule is not adequate. Secondly, given the ample number of tax bases used by the national government, it would be politically unacceptable to grant the power to choose between different taxes to an autonomous agency. Instead, the NFC chooses a sound deficit target, but leaves the political system free to decide on how to achieve it.

Having such an arrangement might solve many of the problems caused by the political distortions we have reviewed in this chapter. It would limit the commons problem by preventing the deficit from being the opportunity cost of an additional spending initiative. The dynamic commons problem could be limited because the NFC would set a deficit target in such a way that booms would get saved and carried to another day. Delayed adjustment could also be limited by provisions enacted to assure that the maximum deficit not be breached. Finally, the NFC would address the credibility problem. Its autonomy and long-term perspective would allow it to offset deficits in bad times with surpluses in good times, expanding market access when it is most needed and thus limiting procyclical adjustments. The electoral budget cycle would be prevented by design, and markets would not become as jittery during elections because the NFC would still set the maximum allowable deficit, no matter who wins the next election.

This solution may not be acceptable or convenient for many reasons. In practice, the NFC’s power to enforce the maximum allowable deficit may be limited by the fact that it does not have direct control over the budget and hence must rely on the rule of law, respect for institutions, and a deep and widely shared commitment to sound fiscal outcomes. Moreover, its autonomy is not guaranteed just by the letter of the law. Autonomous institutions such as independent central banks, utility regulators, bank supervisors and antitrust or antidumping authorities work better in some settings than in others, depending on national, sectoral and design aspects as
well as on the political traditions and culture of each nation. Legislators may question whether the NFC can be trusted to carry out the task it has been assigned without misusing its powers.

There are sufficient degrees of freedom in institutional design to make the space between a scorekeeper and a National Fiscal Council a fairly continuous one. Countries that have doubts about institutional capacity, accountability and autonomy may start out with formulations that are closer to a pure scorekeeper. Countries that value the credibility gains obtained by reducing the borrowing discretion of the political system, and have confidence in the adequate functioning of such an institution, would be willing to provide it with more authority.

Individual countries may find some combinations of these principles more appropriate than others, depending on their specific institutional, political and economic situation. What is important in the end is that polities adopt the right institutions so that democracy, in spite of the challenges it must face given its participatory nature, can deliver sound fiscal management.

23 See Eichengreen, Hausmann and Pras (1997) for a discussion of the factors that seem to affect the performance of autonomy in practice. This study is based on an IDB research network project that compared 18 autonomous institutions in five countries.
REFERENCES


Chapter 3

FISCAL DECISIONMAKING IN DECENTRALIZED DEMOCRACIES

The previous chapter considered the problem of fiscal decisionmaking at the central government level, arguing that the rules of interaction among the agents involved in the budgetary process affect fiscal outcomes, and that electoral systems have an impact as well. However, an important dimension was left out of the analysis: the fact that many of the fiscal decisions are not made by the central government, but rather in a decentralized fashion by lower levels of government. In this chapter, we add the decentralization dimension to the previous analysis.

This dimension has become increasingly important as several countries in the region go through a significant process of decentralization, both on the political and fiscal fronts.\(^1\) On the political front, the most important development has been the widespread adoption of democratic institutions at subnational levels of government.\(^2\) This change, which goes beyond the return of democratic regimes at the national level, has been particularly dramatic at the municipal level, as Figure 3.1 shows. At the beginning of the 1980s, with few exceptions, local public officials in the region were appointed by the central government. Today, local public officials are elected into office in virtually every country.

On the fiscal front, while governments in the region are still characterized by a high degree of centralization, there is a clear trend toward decentralization. Figure 3.2 shows the unweighted average and the median of the degree of expenditure decentralization for 14 countries for which comparable data are available for 1985, 1990 and 1995. The degree of expenditure decentralization is measured as the proportion of total government expenditures executed by subnational governments.

The purpose of decentralization is not generally to improve fiscal discipline. Rather, decentralization has the potential to improve the aggregation problem by allowing a closer match between the preferences of the population and the bundle of public goods and services chosen by government. If preferences are heterogeneous across jurisdictions, the decentralized decisionmaker can tailor the bundle of goods and services to better suit the preferences of the population, instead of providing a “one size fits all” bundle for the country as a whole. To the extent that preferences are aggregated among a smaller and more homogeneous group, the

\(^1\) The issue of decentralization in developing countries has received considerable attention in the last few years, and many studies have focused on Latin America. Recent works on the region include Inter-American Development Bank (1994), López-Murphy (1994), Ter-Minassian (1997), an ECLAC/GTZ project on decentralization in the region, and several studies from the World Bank (such as Shah, 1994).

\(^2\) We use the term subnational levels of government to encompass both the local (or municipal) level and the intermediate level, represented in different countries by states, provinces, departments or regions.
social outcome should result in improved resource allocation under decentralization. In addition, decentralization can help solve agency problems by increasing the ability of voters to discipline local public officials. However, decentralization can have important effects on aggregate fiscal performance. Depending on the way intergovernmental relations are structured, decentralized fiscal decisionmaking can aggravate the coordination problem if jurisdictions have the possibility of shifting the tax burden of local government programs onto others.

The issue of intergovernmental fiscal relations is a complex one, involving five dimensions:

- Assignment of expenditure responsibilities among the different levels of government;
FISCAL DECISIONMAKING IN DECENTRALIZED DEMOCRACIES

• Political autonomy that lower level governments are given to fulfill their responsibilities;
• Assignment of taxes among the levels of government;
• Design of intergovernmental transfers;
• Degree of borrowing autonomy given to the lower level governments.

After reviewing the main benefits and dangers associated with decentralization, this chapter provides an account of where countries in the region are in terms of these five dimensions. We establish the extent to which decentralization, and in particular the way decentralization is structured (i.e., the way the different dimensions are combined), has an impact on aggregate fiscal performance. Most of the data presented in this chapter were gathered through a survey on decentralization to which government officials in 20 countries in the region responded.3

BENEFITS AND DANGERS OF DECENTRALIZATION

The Case for Decentralization

There are three functions into which government activities have been divided for conceptual purposes: the stabilization (or macroeconomic management) function, the redistribution function, and the allocation function.4 Are these functions better served by the national government or by lower level governments? Let us advance the conclusion: there are serious limitations in terms of the ability of subnational governments to provide stabilization and redistribution services; it is mostly in the allocation branch that the benefits of decentralization emerge.

Macroeconomic Management

The central government should hold primary responsibility for this function. There are advantages of coordination that cannot be attained if local or state governments perform the stabilization function separately. Since state and local economies are relatively small and open, stabilization attempts at the subnational level would not be very effective because a large portion of the effects would be leaked to other jurisdictions. These interjurisdictional externalities would make the coordination problem even more serious. In addition, unlike the central government, which has other instruments such as exchange rate policy and monetary policy, the subnational levels only have access to fiscal policy.5

Distribution

Mobility imposes serious limitations on subnational governments attempting to conduct redistributive policy. Attempts to redistribute from the rich to the poor will be followed by migration by the rich to other jurisdictions, and possibly migration of the poor into the jurisdiction. In this way, a local government that tries to redistribute income will find itself populated primarily by low-income populations, and there will be little to redistribute. For this reason, the redistribution function requires a coordinated approach that can better be provided by the central government. Lacking such coordination, there will likely be less redistribution than socially desired.

Allocation

This is where the benefits of decentralization are most likely to be realized. Public goods and services differ in their geographical characteristics. Only a few services, such as defense or foreign relations, are national in scope in the sense that their benefits accrue to the population at large. If the provision of defense were decentralized to accommodate the different tastes that jurisdictions might have regarding defense spending, each jurisdiction would have incentives to free ride on the defense services provided by others, a coordination failure that would lead to underprovision. In contrast, the benefits of other public goods, such as fire protection, are local in nature. Federal programs are often designed to provide equal amounts of a public good to all, regardless of the geographical characteristics of the good in question. Under decentralized decisionmaking, governments can be more responsive to the specific needs and preferences of the local population in each jurisdiction, and can tailor the provision of the "local" public goods to better satisfy those

3 The decentralization survey provides detailed information on expenditure and revenue assignment, political institutions at the subnational level, intergovernmental transfers systems, and borrowing procedures for the subnational levels, thus covering the five dimensions mentioned above. We are very grateful to those who took the time to respond to the survey. Their help has been invaluable.
4 See Musgrave (1959) and Gates (1972).
5 Gramlich (1987) has challenged the view that macroeconomic policy should be reserved exclusively for the central government, particularly in the case of large countries, where shocks can affect different regions in different ways. The oil shock, for example, improved economic conditions in certain parts of the United States (such as Texas), while pushing others into deep recessions. In this case, it is not obvious how stabilization policies by the national government would help, or even the sign that these policies should have.
preferences. The larger the differences in preferences across jurisdictions, the greater the benefits from decentralization.

Let us illustrate this point with an example. A jurisdiction that is primarily rural will probably have very different needs regarding irrigation programs compared to an urban jurisdiction. While it would be a stretch to suggest that centralized decisionmaking will provide exactly the same amount of this service to both jurisdictions, it is nonetheless certain that a centralized system would be less responsive to the preferences of each jurisdiction. Under centralized democracies, the preferences of the entire country's population are aggregated in some way (depending on the electoral system in place) in order to determine, through the budgetary process, the country's level and composition of expenditures. The resulting bundle is bound to differ substantially from the preferences of both the urban and rural population, thus generating welfare losses. Expenditure on irrigation for the country as a whole will probably be more than desired by the urban population, but less than desired by the rural population. Under decentralization, preferences are aggregated among smaller and more homogeneous (urban or rural) groups, so the social outcome should result in improved resource allocation.

Another related problem of centralized decisionmaking stems from the fact that, depending on the electoral system, some jurisdictions might not even be represented in the national congress. In this case, the preferences of these jurisdictions obviously will not be adequately taken into account when fiscal decisions are made. On deciding which projects to fund regarding road construction, for example, it is likely that these jurisdictions will be systematically left out, while those well represented in the budget process will receive most of the funding. Under decentralization, fiscal bundles may in principle be determined on the basis of each jurisdiction's own preferences.

The fact that taxes and services will better reflect the tastes of the existing population, which could be called the static benefit, is only one of the positive effects of decentralization. There are some dynamic effects as well. One is that individuals can "vote with their feet," as argued by Tiebout (1956), moving to the jurisdiction that offers the fiscal bundle that best suits their preferences. Apart from the direct effect on those who move, who obviously are better off, mobility has the additional effect of increasing the degree of homogeneity within the jurisdictions, leading to a better match between individual preferences and the fiscal bundles available to them.

An additional dynamic argument for decentralization poses that if different jurisdictions are providing the same service in different ways, then more technical progress is likely. In addition, if there is mobility or a high degree of political competition, this technical progress will spread rapidly, as authorities will have incentives to copy the successful jurisdictions to avoid losing the tax base or being voted out of office.

What effects does decentralization have on agency problems? Decentralization can help contain them by introducing some elements of competition that increase the incentives of governments to do the right thing. Decentralization gives more power to voters to "kick the rascals out" when they are acting according to self-interest rather than the interest of the community. But there are other ways that competition can reduce agency problems. Brennan and Buchanan (1980) depict the government as a Leviathan seeking to maximize revenues and having monopoly power over the tax base. In this case, decentralization introduces competition for the tax base, resulting in a bundle of goods and taxes closer to the one desired by the population (which, in this case, means smaller government). In this way, mobility of individuals across jurisdictions brings the market for public goods and services closer to the "perfectly competitive" outcome. However, as we will see below, under more benign governments, tax competition may lead to inefficient taxation and underprovision of public goods.

To the extent that local services are financed by the jurisdiction's own revenues—thus there being a close link between the benefits provided by these services and the costs to the local taxpayers—decentralization will result in increased accountability for the efficient provision of services. Citizens will have strong incentives to monitor local authorities. These incentives may be weaker if a substantial portion of local expenditures is covered through transfers from higher levels of government, and especially weak if local governments face weak budget constraints. If individuals do not perceive a clear link between benefits of local government programs and their costs, they will be less concerned with the efficiency in the provision of the services. More generally, decentralization will encourage political participation if individuals regard local policies as having a more direct impact on their lives, and feel that they have a better chance to be heard and make a difference at the local level.\(^6\)

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We mentioned in the introduction to this chapter that decentralization may aggravate coordination problems associated with government programs with concentrated benefits financed by a common pool of resources. However, under certain conditions, decentralization can actually reduce the extent to which a country is subject to this commons problem. Consider a country where all the government programs with national benefits (such as defense and foreign relations) are centralized, while all programs with local benefits are decentralized. Assume also that all local programs are financed with local revenues. In such a case, the commons problem is reduced to a smaller local game, since there are no programs with local benefits financed with national resources. As we will see below, such conditions are not typical, as decentralization is generally higher in the expenditure dimension than in the revenue dimension.

Perils of Decentralization

One of the most important dangers of decentralization is associated with incentives that lower level governments may have to behave in a fiscally irresponsible manner, primarily due to coordination problems. In part, problems of fiscal discipline are associated with an important asymmetry that countries face when considering decentralization. On the expenditure side, there are a large number of important local public goods and services that could be better provided by lower level governments. On the revenue side, however, finding solid tax bases for intermediate and local governments is difficult, particularly because of the mobility of tax bases across jurisdictions. Taxes suitable at the national level can, because of inter-jurisdictional mobility, introduce serious distortions and location inefficiencies when applied in a decentralized fashion. Apart from the difficulties introduced by mobility of tax bases, equity considerations and economies of scale in tax administration further limit the set of "good" tax bases to be assigned to lower level governments. The problem is compounded by the weakness of tax administration systems in most subnational governments in the developing world. This asymmetry between expenditure responsibilities and the capacity to generate revenues generates a gap, known as vertical imbalance, which is typically bridged through transfers from the central government.

The problem is that heavy reliance on transfers—unless these are very clearly defined, with resources allocated according to objective criteria not easily manipulated by recipient governments, and with little room for discretionality and bargaining between the different levels of government—may weaken the budget constraints of subnational governments. When this happens, there is scope for lower level governments to shift the cost of local programs onto others outside the jurisdiction, which constitutes the basis of the coordination problem and can result in overspending. Coordination problems may become even more serious in cases where subnational governments have a large degree of borrowing autonomy, in particular if the central government cannot avoid bailing subnational governments out in the event of financial trouble. If this is the case, subnational governments may overborrow and overspend, and then shift the burden of repayment onto the central government. Some authors have argued that these commitment problems at the central government level, which exacerbate coordination failures, are more likely to be important when there is a high degree of vertical imbalance, that is, when most of the expenditures of local jurisdictions are financed with transfers from the central government. In such cases, it is costly for subnational governments to get out of financial trouble by themselves, and difficult for the central government not to come to their rescue.\(^7\)

A different type of coordination failure can occur if decentralization is not based on a well specified contract between the different levels of government that clearly determines each level’s responsibilities. Different levels of government often have concurrent expenditure responsibilities, and the manner in which these responsibilities should be shared is not clearly specified. This provides incentives to free ride. Local governments may choose to underprovide in areas of joint responsibility, forcing the central government into additional spending.

Much of the argument for decentralization is based on the premise that it will result in a better match between the preferences of the local population and the fiscal bundle of public goods and taxes offered by the government. Some of the arguments against decentralization question the above premise. There are two types of arguments: i) those that rely on agency considerations, calling into question the willingness of local officials to respond to the preference of the population; and ii) those that focus on the lack of institutional capacity of local governments to carry out the programs effectively, even if their goal is to meet the preferences of the population.

Regarding the first argument, it has been pointed out that in many cases, particularly in developing coun-

\(^7\) See Eichengreen and Von Hagen (1996).
countries, local governments are not democratically elected, or democracies do not work properly, so it is not clear to what extent local governments will be sensitive to the preferences of the population. If only a reduced portion of the population participates in elections, the political process is more prone to involve clientelistic relationships between the elected officials and a powerful minority that supports the government in exchange for favors. While there is no agreement on this issue, some authors have argued that this and other forms of corruption are more likely to occur in local governments. 8

The second argument focuses on the lack of institutional capacity at the local level. Prud'homme (1995) emphasizes the weakness of local bureaucracies relative to the central government bureaucracy, a problem that is particularly serious in developing countries. Our survey provides support for his argument. The lack of institutional capacity at the subnational level was identified as one of the most important obstacles to decentralization in 17 of 20 countries. However, two points should be kept in mind. The first is that the gap in institutional capacity between the central and the lower level governments may be to some extent a transitional problem, and should diminish over time with the practice of decentralized decisionmaking. It would be hard for a local government to possess a capacity it does not use, but that capacity can develop once the need for it exists. The second point is that one needs to be careful with the comparison: decisions that would be taken by a mayor at the local level or by a minister at the state level in a centralized setting might be taken by a lower level bureaucrat under centralization. And it is not clear that a lower level centralized bureaucrat will have a better capacity to make the right decisions. Tanzi stresses the deficient public expenditure management systems in developing countries that result in ineffective control over expenditures. These systems, he argues, are even weaker at the local government level.

In summary, the gains from decentralization may be large, provided the following conditions are in place: i) local officials are elected, the democratic process works well enough to provide sufficient electoral discipline, and decisions are more visible and accountable; ii) local governments have institutional capacity to handle their expanded responsibilities under a decentralized regime; iii) the decentralization contract between the different levels of government (implicit or explicit) is clearly specified; iv) as much as possible, correspondence is kept between the benefits of government programs and the cost to local taxpayers; and v) intergovernmental relations (including the transfer system and borrowing rules) are such that subnational governments face hard budget constraints. In what follows, we will discuss where Latin America is in terms of the five dimensions mentioned in the introduction, starting with the decentralization of expenditures. The combination of some of these dimensions will provide an idea of the extent to which some of the conditions for a successful decentralization are being met in the region.

DEGREE OF DECENTRALIZATION OF EXPENDITURES

Countries Typically Highly Centralized

The Latin American tradition of centralization dates to the period of colonial administration and remained in place after the independence movement, partly due to the inherited colonial structures, and partly to the need that countries had to keep their distant provinces together under one power. Even today, in spite of recent trends toward decentralization in several countries, the region remains highly centralized.

Figure 3.3 shows the degree of decentralization, measured as the percentage of total government spending executed by subnational governments, in Latin American and Caribbean countries. 9 For the sake of comparability, the average degree of decentralization for the countries in the OECD is also included. The difference between the two sets of countries in this regard is substantial. While, on average, subnational levels of government are responsible for 35 percent of expenditures in industrialized countries, they execute less than 15 percent in Latin America. The figure also shows the variety of experiences in the region regarding the degree of decentralization. While in most countries less than one government dollar out of ten is spent by subnational governments, other countries such as Argentina and Brazil are quite decentralized.

As expected, the federal countries, indicated in the figure by the red bars, are typically more decentralized than the unitary ones. The average degree of decentralization in federal countries is 35 percent. Under federal structures, subnational governments usually possess a

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9 Our measure of decentralization is broad, including expenditure on activities always centralized, such as foreign relations or defense. For some empirical experiments for which we had available data, we did use a measure of decentralization that excluded social security.
considerable amount of political and administrative independence. In contrast, lower levels of government in unitary countries are subordinated to the central power. Size is an obvious candidate to explain the differences in the degree of decentralization among countries. Figure 3.4 (a, b and c) shows the association between country size and decentralization, when size is measured by population, land area and GDP. The ovals represent Latin American countries, while the triangles represent those of the OECD, and a regression line has been included for each region. It appears that country size is positively associated with higher decentralization, regardless of the variable used to measure size. Two points should be highlighted here. First, size in Latin America seems to be a more important determinant of decentralization than in the OECD countries (indicated by the steeper slope of the lines corresponding to Latin America). Second, the regression line for Latin America, in each case, lies below that of the OECD, indicating that the region is highly centralized even after accounting for country size.

**Decentralization Ongoing in Several Countries**

While Figure 3.2 showed the region’s tendency toward decentralization during the last decade, Figure 3.5 shows the change experienced in this regard by individual countries. The drive toward greater decentralization has been the rule rather than the exception. The degree of decentralization for 1985 is depicted on the horizontal axis, while the 1995 value is represented by the vertical axis.

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10 In some cases, the federal label is more a declaration than a reality. The degree of autonomy enjoyed by subnational governments in Venezuela, a federal country, has been lower than that in Colombia or Bolivia, both unitary countries. The only two countries in the region that approximate real federal systems of government are Argentina and Brazil, so it is not surprising to see them at the top of the decentralization list.
axis. The 45 degree line divides the countries that have decentralized (above the line) from the ones that have experienced further centralization (below the line). Notice that most countries are above the line, and several of them—particularly Argentina, Chile, Colombia, Mexico and Peru—have decentralized expenditure considerably. In contrast, there are no countries that have advanced toward further centralization in any significant way.

In the figures up to now, decentralization has been defined as the portion of total government expenditure spent by subnational governments, which comprises both the state and the local level. This measure, however, does not capture the redistribution of spending authority between state and local governments that has occurred in some countries in the region. Figure 3.6 tackles this question, showing the trends in the proportion of subnational spending executed at the local level for the six most decentralized countries.

In Argentina and Mexico, the division of subnational spending between state and local governments has been surprisingly stable. In both countries, local spending accounts for about a sixth of total subnational spending. In Brazil, Colombia and, most significantly, Bolivia, decentralization from the state to local level has been quite substantial. In contrast, in Venezuela local governments have been losing spending power, both in relation to subnational and total spending.

Assignment of Expenditure to Different Government Levels

The shares of subnational governments in total government spending give us an idea of the relative aggregate importance of the different levels of government, and its change over time. It does not show us, however, whether any activities have actually been decentralized. An increase in the share does not necessarily mean that the state or local levels have taken on new responsibilities. It may be the reflection of fiscal adjustment at the central level, or increased expenditures by the subnational levels on activities for which they already had responsibility.

The information on expenditure assignment gathered through the decentralization survey allows us to determine the extent to which different countries have actually transferred expenditure responsibilities to lower level governments during the last decade, or extended these governments more autonomy to handle the responsibilities they already had (Table 3.1).11

A couple of points are worth noting. First, only a handful of countries are engaged in the transfer of expenditure responsibilities to lower level governments. Second, decentralization of activities has mostly been confined to the larger countries, which were the ones

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11 The survey asked not only about the level of government responsible for providing or contracting various services, but also about the level responsible for deciding on the amount to be spent, allocating expenditures within the activity, and setting standards and supervision. The information is summarized in Appendix Table C.1.
most decentralized to begin with. Of these, Argentina, Bolivia and Mexico were the most active countries, transferring to the states a number of important responsibilities, particularly in the social sectors. While in Argentina and Mexico responsibilities were assigned mainly to the state governments, services in Bolivia were decentralized primarily to the municipal level. In Colombia, most changes involved assignment of responsibilities to the local level for a large number of services. But these responsibilities are shared with higher levels of government. In Venezuela, most changes involve shared responsibilities between the central and state level for a num-

<table>
<thead>
<tr>
<th>Country</th>
<th>Main Changes in Expenditure Responsibility, 1985-96</th>
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<tbody>
<tr>
<td><strong>Argentina</strong></td>
<td>Provinces that already carried out expenditure now have exclusive rights in providing the service.</td>
</tr>
<tr>
<td>Secondary education and hospitals</td>
<td>Previously at the national level, now an exclusive mandate of the provinces.</td>
</tr>
<tr>
<td>Housing</td>
<td>Provinces carry out the expenditure exclusively and define its structure. The government, which previously had exclusive say, still decides on expenditure amounts and standards enforcement.</td>
</tr>
<tr>
<td>Nutrition programs</td>
<td>Cooperative enforcement at the federal and province level switches to the federal level exclusively.</td>
</tr>
<tr>
<td>Highways</td>
<td>Cantons participate in the expenditure structure definition, which is no longer the government’s prerogative.</td>
</tr>
<tr>
<td>Bolivia</td>
<td>These services, previously provided exclusively at the national level, are now provided at the provincial level.</td>
</tr>
<tr>
<td></td>
<td>The central government still retains the faculty of deciding the amounts and enforcement.</td>
</tr>
<tr>
<td>Colombia</td>
<td>No longer an exclusive attribute of the central government. Municipalities now participate in all stages of the decision process, except in enforcement, which is still handled exclusively by the central government.</td>
</tr>
<tr>
<td>Housing</td>
<td>Now administered by the municipalities, although the central government has discretion on the expenditure amounts and structure.</td>
</tr>
<tr>
<td>Nutrition programs</td>
<td>Municipalities are starting to participate in decisions involving amounts and completion of the expenditure, previously central government and departmental attributions.</td>
</tr>
<tr>
<td>Primary and preschool education</td>
<td>Decisions are now primarily at the department and municipal level, previously the domain of the central government.</td>
</tr>
<tr>
<td>Public health</td>
<td>Now the responsibility of the departments instead of the national government. Municipalities have a say in the decisionmaking process and the national government has an exclusive mandate in supervision.</td>
</tr>
<tr>
<td>Hospitals</td>
<td>Mexico</td>
</tr>
<tr>
<td>Preschool, primary and secondary education</td>
<td>The service is now a concurrent responsibility of the federal government and the states.</td>
</tr>
<tr>
<td>Public health and hospitals</td>
<td>Previously federal, now exclusively a state mandate.</td>
</tr>
<tr>
<td>Nutrition programs</td>
<td>The federal government transfers responsibility to the states.</td>
</tr>
<tr>
<td>Water and sewage</td>
<td>Water and sewage, public health, highways and irrigation</td>
</tr>
<tr>
<td>Roads and highways</td>
<td>Police</td>
</tr>
<tr>
<td>Housing</td>
<td>States now participate in a previously exclusively centralized activity. Central government still in charge of supervision.</td>
</tr>
<tr>
<td>Garbage collection</td>
<td>States now have certain influence in expenditure decisions.</td>
</tr>
<tr>
<td>Newly decentralized to begin with. Of these, Argentina, Bolivia and Mexico were the most active countries, transferring to the states a number of important responsibilities, particularly in the social sectors. While in Argentina and Mexico responsibilities were assigned mainly to the state governments, services in Bolivia were decentralized primarily to the municipal level. In Colombia, most changes involved assignment of responsibilities to the local level for a large number of services. But these responsibilities are shared with higher levels of government. In Venezuela, most changes involve shared responsibilities between the central and state level for a num-</td>
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ber of services previously provided exclusively by the central government.\textsuperscript{12}

A priori, one would expect that countries where lower levels of government have taken on new responsibilities should be the ones that experienced the largest changes in terms of the degree of decentralization. While this is true for a number of countries such as Argentina and Mexico, a comparison of Table 3.1 and Figure 3.6 shows that it is not always the case. In Chile, Peru, Uruguay and Honduras, subnational governments substantially increased their share of spending without taking on any new spending responsibilities. In contrast, in Bolivia and Venezuela, the increased responsibilities of lower level governments were not reflected in an increased proportion of subnational expenditure.

Figure 3.7 summarizes which activities have been decentralized to a greater extent and which have been more commonly transferred to subnational levels over the last decade. The figure measures the degree to which each activity was decentralized throughout the region in 1985 (horizontal axis) and 1996 (vertical axis). This measure takes into account not only whether subnational governments were responsible for providing the service, but also their degree of autonomy in doing so.\textsuperscript{13} A higher value means that the activity is decentralized in more countries, or that subnational governments are more autonomous in carrying out their responsibilities.

Most activities are centralized to a large degree. The exceptions are urban transportation and, particularly, solid waste management. These three activities respond closely to the ideal of a local public good, since they offer locally concentrated benefits, and economies of scale do not play an important role beyond a reasonably small size. For this reason, it is not surprising that these sectors are the most decentralized. The activities above the 45 degree line are the ones where the degree of decentralization has increased. In general, decentralization of spending responsibilities has been more pervasive in the social sectors than in infrastructure, in part because the latter were in many cases transferred to the private sector.

In sum, although Latin America remains highly centralized, especially when compared to developed countries, there is a tendency toward increased decentralization. Several countries have been transferring expenditure responsibilities from the central government to state and local governments, and extending these governments more autonomy to handle the responsibilities they already had. This trend has been particularly important in social services such as health and education.

\textbf{POLITICAL DIMENSION OF DECENTRALIZATION}

The basic gain from decentralization comes from its potential to improve the match between public goods offered by local governments and preferences of the population. For this potential to be realized, however, the conditions need to be in place for decentralization to solve problems of agency. Obviously, an important condition is to have democratic governments at the lower levels. But this alone might not be enough. Research on civic traditions and participation suggests that decentralization performs better when local communities have active civic and political participation, which in turn is associated with the tradition of self-government.\textsuperscript{14}

\textsuperscript{12} It may surprise the reader not to find Brazil in the table. Brazil was already quite decentralized in 1985, and the decentralization associated with the constitutional reform of 1988 involved revenues rather than expenditure responsibilities.

\textsuperscript{13} The measure is constructed in a way that precludes it from being affected by privatization activity. A detailed description of this measure, which we call the Activity Decentralization Index, is included in Appendix A.

\textsuperscript{14} See Putnam (1993).
these conditions are in place, the assumption that local governments are in a better position to satisfy the preferences of the community is more plausible. Active and participative communities supply better information about their preferences to public officials and monitor their performance more closely. In this section, we discuss the recent evolution and characteristics of political systems at the subnational level in the region. The aim is to determine the extent to which subnational governments have political autonomy and public officials are accountable to the population.

The fiscal centralization that characterizes Latin America is partly the result of the small amount of political autonomy that subnational levels of government have traditionally enjoyed in most countries. During the 1980s and 1990s, however, the political landscape has gone through a great transformation, marked by the return of democracy. This democratic movement strengthened demands for autonomy at the subnational levels. As seen in Figure 3.1, different constitutional and legal reforms allowed subnational governments to be ruled by elected officials after years of appointments by central government authorities. Today, mayors are elected through a democratic process in nearly all countries of the region. Several countries adopted elections at the intermediate level as well, but this was not as widespread, reflecting the lower degree of autonomy that intermediate governments typically have under unitary systems.

In spite of this dramatic progress, it is important to stress that citizen participation is not something that changes overnight. In societies lacking an established tradition of local self-government, and where local democracies are a recent phenomenon, low civic participation in the political process is likely to be part of the political landscape for a while, until these democracies become more established. Low participation poses a threat to the success of decentralization by increasing the likelihood that agency problems will develop. It can create the conditions for corrupt practices and clientelism in subnational governments, capture of local and state institutions by special interest groups, or entrenchment of the traditional regional political elites in the new local administration. In a context of greater autonomy from the central government, the only way to prevent corruption and other self-serving practices by public officials is through the control of their constituencies. If that control is deficient, problems of governance and accountability may be aggravated by decentralization.

In summary, decentralization without political participation and civic involvement has a much higher probability of failure than if there is stronger political and civic involvement.

The good news is that elections of public officials were not the only changes introduced in the region. They were complemented, in some countries, by the introduction of mechanisms of popular participation and by changes in the electoral systems to increase the degree to which local officials are accountable to the local population. Examples are the separation between the election dates at the national and subnational level (in Colombia, Dominican Republic, Ecuador and Venezuela), or the separation of the ballots in elections between national and local officials (in Honduras). Table 3.2 summarizes some of the most important recent changes in the region in terms of subnational electoral systems, autonomy and local political participation.

It is important to take stock of where the different countries are today in terms of elections, electoral systems and participation mechanisms at the lower levels of government. Table 3.3 shows whether the executive at each level is elected into office and presents data regarding the electoral systems both for the executive branch and the legislative branch. Are the elections direct or indirect? Are the elections for state legislatures and municipal councils based on proportional representation or plurality systems? Is reelection allowed? Do the dates of elections at the state and municipal levels coincide with those at the national level? Other than the vote, are there other mechanisms for popular participation in government decisions?

All these questions can be relevant when considering the potential for agency problems. Apart from the obvious effects of elections on agency, it can be argued that local public officials are more accountable to the local population under direct elections than under indirect elections, where party discipline might have a larger role in the outcome. In Latin America, elections are generally direct, both for the intermediate and local level. If the election dates at the local and national level coincide, it is likely that the outcome of the local election will be very much influenced by the outcome of the national election. In this case, again, national party politics play a large role. Although election dates for central and lower levels coincide in most countries, there is a ten-

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15 In a few countries, elections for mayors are not tied to those for the municipal council. In Honduras, Mexico and Peru, the first name in the winning list for the municipal council becomes the mayor. In Belize, Costa Rica, Jamaica and Trinidad and Tobago, the democratically elected municipal council appoints the mayor.
dency in the region to make them more independent. If officials can be reelected, they have an additional incentive to satisfy the preferences of the voters. However, reelections, in particular for the executive branch, could also lead to strategic behavior by the incumbent, resulting in political cycles.

At the state and local legislatures, plurality (or first-past-the-post) systems generate stronger incentives for candidates to establish a solid reputation with the local electorate. Under proportional representation systems, party politics may be a more important element in determining the composition and the order of the lists. The downside of PR systems, as we discussed in the previous chapter, is that they generate an aggregation of preferences that tends to underrepresent those of the minorities. Probably for this reason, most countries have adopt-

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Event</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahamas</td>
<td>1996</td>
<td>New local elections law</td>
<td>Mechanism allowing for elections at the local level created.</td>
</tr>
<tr>
<td>Bolivia</td>
<td>1994</td>
<td>Constitutional reform</td>
<td>Local office term limit increased to four years. The hierarchical relationship of department capital municipal councils over provincial municipal councils eliminated.</td>
</tr>
<tr>
<td>Brazil</td>
<td>1982</td>
<td>Constitutional reform</td>
<td>State governors to run for election.</td>
</tr>
<tr>
<td></td>
<td>1985</td>
<td></td>
<td>Direct elections for municipal capital prefectures.</td>
</tr>
<tr>
<td></td>
<td>1988</td>
<td>Constitutional reform</td>
<td>Greater political and financial autonomy of the subnational governments and formalization of a multiparty democratic government. Introduction of plebiscite and referenda mechanisms.</td>
</tr>
<tr>
<td></td>
<td>1996</td>
<td>Constitutional amendment</td>
<td>Allows for the immediate reelection of state governors and mayors. Mayoral elections are now permitted on dates different from general elections.</td>
</tr>
<tr>
<td></td>
<td>1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>1991</td>
<td>Constitutional Reform</td>
<td>Municipal elections implemented. Regional governments created.</td>
</tr>
<tr>
<td></td>
<td>1992</td>
<td>Supreme Decree No. 662</td>
<td>Enacts new municipalities law that regulates the election of mayors and council members.</td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td>Supreme Decree No. 291</td>
<td>Enacts new regional governments and administration law (regional government officials are not popularly elected).</td>
</tr>
<tr>
<td>Colombia</td>
<td>1986</td>
<td>Legislative Act No. 1</td>
<td>Mayors to run for election.</td>
</tr>
<tr>
<td></td>
<td>1991</td>
<td>Constitutional reform</td>
<td>Subnational governments authorities are now elected by popular election. Elected officials now include department governors as well as mayors. Elections for these offices should not coincide with general elections. Governors and mayors can now be suspended for not fulfilling their electoral platforms.</td>
</tr>
<tr>
<td></td>
<td>1994</td>
<td>Law 131</td>
<td></td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1994</td>
<td>Constitutional reform</td>
<td>Presidential elections are separated from legislative and local.</td>
</tr>
<tr>
<td>Ecuador</td>
<td>1991</td>
<td></td>
<td>Elections for provincial representatives and municipal council members can now be held on dates other than general elections.</td>
</tr>
<tr>
<td>Honduras</td>
<td>1991</td>
<td>Reforms to Electoral Code and Political Organizations Code</td>
<td>Voting ballots now separated into local and central levels.</td>
</tr>
<tr>
<td>Mexico</td>
<td>1997</td>
<td></td>
<td>First-time elections for Federal District general election.</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>1995</td>
<td>New Electoral Code</td>
<td>Mayors, previously elected by the municipal councils, now elected by direct vote (relative majority).</td>
</tr>
<tr>
<td>Peru</td>
<td>1992</td>
<td>Constitutional reform</td>
<td>Less autonomy for intermediate level, so as to keep only two levels of government.</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1989</td>
<td>Election and removal of state governors act</td>
<td>State governors to run for election for the first time.</td>
</tr>
<tr>
<td></td>
<td>1989</td>
<td>Municipal reform</td>
<td>Municipal mayors, previously appointed by municipal councils, now elected by direct vote.</td>
</tr>
</tbody>
</table>
ed PR systems, rather than systems that emphasize the rule of the majority.

In several countries in the region, citizens have other channels of political participation in the decisions of their jurisdiction in addition to election of public officials and representatives. These channels include referenda, citizen initiatives, and other forms of expression of popular will or disagreement with public officials’ decisions. All these mechanisms should help solve the agency problem. Under an interesting mechanism in place in Colombia since 1994, governors and mayors can be thrown out of office if they fail to carry out the platforms on which they were elected. This maximizes accountability, although it has the potential to create problems of governance. Evidence from Switzerland and the United States suggests that government spending tends to be smaller in jurisdictions where citizens participate directly in the decision-making process, so that certain elements of direct democracy exist.16

To determine whether there is an association between political autonomy and participation at subnational levels, and the extent of expenditure decentralization, we created an index that captures this political dimension, using as ingredients all the elements discussed above: elections, characteristics of the local electoral system, and existence of other forms of political participation. In addition, we included the index of political rights published by Freedom House, which measures the fairness of elections and the extent to which the rights of citizens to actively participate in the political process are respected.17 A detailed description of our measure, which we call Index of Political Autonomy and Participation, is included in Appendix A. Figure 3.8 presents the value of our index for each country for which we were able to obtain data.18

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Table 3.3. Elections and Citizen Participation at the Subnational Level

<table>
<thead>
<tr>
<th>Country</th>
<th>Executive</th>
<th>Intermediate</th>
<th>Local</th>
<th>Legislative</th>
<th>Intermediate</th>
<th>Local</th>
<th>Do elections coincide with those at the national level?</th>
<th>Are there any?</th>
<th>By popular initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Bahamas</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Bolivia</td>
<td>no</td>
<td>na</td>
<td>na</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Brazil</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Chile</td>
<td>no</td>
<td>na</td>
<td>na</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Colombia</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>no</td>
<td>na</td>
<td>na</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Dom. Rep.</td>
<td>no</td>
<td>na</td>
<td>na</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Ecuador</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>El Salvador</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Guatemala</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Honduras</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Mexico</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Panama</td>
<td>no</td>
<td>na</td>
<td>na</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Paraguay</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Peru</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Uruguay</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Venezuela</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

Note: Shaded areas indicate that the level of government does not exist. Systems for election of legislative bodies: In proportional representation systems (PR), the seats are distributed in proportion to the votes obtained by each party according to some allocation formula. In plurality systems (PL), only one candidate is elected per electoral district. Mixed systems (Mix) combine features of both.

* In Costa Rica, mayors are elected by municipal council members, who in turn are elected by popular vote.

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16 See Pommerhene and Schneider (1983) and Santerre (1986).
17 Freedom House indices are available only at the country level, so we make the implicit assumption that respect for political rights at the subnational level will closely match that of the country.
18 The Bahamas was excluded from this index because the local level only became autonomous in 1996.
The countries that have a larger degree of political autonomy and civic participation at subnational levels, according to our index, are Chile and Uruguay, followed by Argentina, Brazil and Venezuela. Are political autonomy and participation associated with the degree of expenditure decentralization? The relationship between these two variables is depicted in Figure 3.9. The figure suggests that a positive (though not very strong) association exists between political autonomy and participation at lower levels of government, and the extent to which government expenditures are decentralized. Note that we are talking about an association between the two rather than a specific causality. In fact, there are compelling arguments to justify causality in both directions. Political participation could increase the demand for decentralization, since the public understands that it will lead to its wishes being better taken into account. At the same time, increased decentralization may increase interest in participating in the political process, since the local government would now be responsible for a wider range of public goods and affect the lives of the population to a greater degree.

Is there any downside to political autonomy at the lower levels of government? In fact, strong and autonomous state or local governments have the potential to aggravate coordination problems. This possibility will be especially important in cases where the central government plays a role in financing lower level government expenditures, and at the same time needs the support of the lower levels to pass legislation through congress. This can lead to gridlock and to protracted bargaining between the different levels of government, particularly if the rules that define intergovernmental relations, such as the transfer system, are not clearly defined and leave room for discretion. As we will see below, the potential for coordination problems can be more serious if a high degree of political autonomy also encompasses the autonomy to borrow.

**TAX ASSIGNMENT AMONG LEVELS OF GOVERNMENT**

The problem of decentralization is not limited to the question of assigning expenditure responsibilities among the different levels of government according to the level that, given the characteristics of each public good or service, will be in a better position to provide it efficiently. How provision of these services by each level is financed is also a crucial dimension of decentralization. One possibility would be to assign revenue responsibilities to each level so that it can fully finance its assigned expenditures. This strategy can be costly in terms of the efficiency of the tax system, as an important number of tax bases can be exploited more effectively by the central government. A different possibility would be to centralize revenue responsibilities and finance the provision of decentralized services through the use of intergovernmental transfers. The problem with this strategy is that it can fully finance its assigned expenditures. This strategy can be costly in terms of the efficiency of the tax system, as an important number of tax bases can be exploited more effectively by the central government. A different possibility would be to centralize revenue responsibilities and finance the provision of decentralized services through the use of intergovernmental transfers.
In most countries, financing the activities of subnational governments lies somewhere between the two possibilities outlined above, and Latin America is no exception. While part of the expenditures is financed by the subnational government’s own revenues, a significant portion is covered by central government transfers. This section discusses which revenue sources are appropriate for lower level governments and provides information on tax assignment practices in the region.

The literature on fiscal federalism offers important guidance on the issue of tax assignment, i.e., the assignment of taxing powers among the different levels of government. The following is a list of general guidelines concerning assignment of revenue sources to the different levels of government:

1. Taxes on mobile tax bases should be primarily left to the central government (except for user charges and benefit taxes), since mobility will limit the ability of lower level governments to control the tax rates without losing the tax base.

2. A special case of taxes on mobile factors are those used for redistributive purposes, such as progressive income taxes. Redistributive taxes should, in general, be reserved for the central government. Not only will migration result in an inefficient jurisdictional allocation of the factors of production if these taxes are assigned to lower level governments, it will also render the redistributive efforts of the government ineffective.

3. Taxes that when levied by lower level governments are liable to fall onto taxpayers from other jurisdictions should be centralized. A shift of the tax burden onto others outside the jurisdiction lowers the tax price of public programs, and can result in excessive spending. Local jurisdictions, however, will have incentives to rely heavily on these taxes, such as those on hotels and restaurants in tourist areas, rather than on more visible taxes that fall on the local population, such as the property tax, which is usually unpopular.

4. Taxes levied on tax bases that are unevenly distributed (such as natural resources) should be centralized. This is probably a more important constraint in developing countries, where the tax bases are usually more unevenly distributed.

5. Taxes that are subject to important economies of scale, or that require information at the national level, should be centralized.

6. Taxes subject to large cyclical fluctuations should be centralized. This is important in cases where the environment is volatile, very much the case in Latin America, particularly if subnational governments have limited creditworthiness or borrowing autonomy, and thus have limited ability to smooth expenditures over the cycle.

7. To the extent possible, subnational governments should rely on user charges and benefit taxes (even on mobile factors), where the payments are closely associated to the benefits received. These revenues do not result in allocative inefficiencies, and send the right price signals for the determination of the level of public services to be provided.

8. Nonbenefit taxes at the subnational level should only be levied on rather immobile tax bases. An example of this would be the property tax.

It should be clear from the above list that the conditions for a tax to be a “good” local tax are rather restrictive. As a result, the number of tax bases that can efficiently be exploited locally are more limited than the more abundant spending obligations that should be assigned to the subnational governments. To make matters worse, tax administration systems in most subnational governments in the region are rather weak. For this reason, countries that decide to decentralize expenditures to any significant extent often have to choose between having a large degree of vertical imbalance, or assigning to subnational governments revenue sources that do not satisfy some of the conditions outlined above, and may therefore introduce important distortions.

Figure 3.10 shows which taxes are most frequently assigned to lower level governments. The first figure shows the number of countries where the tax is assigned to the intermediate and to the local levels (or to both). The second figure distinguishes subnational governments that only administer the tax from those that to some extent control tax policy, setting the tax rates or the tax base. It is clear from the figure that, in a number of cases, lower

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19 These guidelines are based on Musgrave (1983), Oates (1994) and Norregaard (1997).

20 Benefit taxes are taxes based on the principle that those who benefit from public services should pay for them. An example of a benefit tax is the fuel tax, where payments are associated with the benefits derived from the use of road infrastructure.
Level governments collect taxes but have no control over tax policy, as in Chile, Colombia, Peru and Nicaragua, and to some extent in Mexico. Generally speaking, the rest of the countries tend to give the subnational governments more autonomy in determining all the relevant aspects of the revenues that are assigned to them.

The tax most frequently assigned to subnational governments is, not surprisingly, the property tax: such was the case in 16 of 20 countries surveyed. In most cases, the tax was assigned to the local level. Land and existing structures are the least mobile of tax bases, which makes the property tax a good candidate for a local tax. The high visibility and transparency of this tax is another advantage, as it fosters accountability. However, visibility and transparency also create political resistance to the tax, limiting its revenue potential.

Taxes on vehicle circulation are also used at lower levels in many countries. This tax can be interpreted as a user charge or benefit tax, as it is paid by those who make the most use of the road infrastructure. Other taxes frequently assigned to lower levels are those on industry and trade, and on gambling. Some sales taxes, such as excises and retail taxes, are appropriate for the intermediate level, provided tax rates are not too different across jurisdictions. Wholesale or production taxes, in contrast, are likely to be exported to other jurisdictions, and thus should be centralized.

One of the most decentralized countries, Brazil, relies heavily on a value-added tax at the state level. This tax clearly departs from the conventional prescriptions of the fiscal federalism literature, as it is difficult to administer and generates important distortions. In the particular case of Brazil, tax rates differ according to the region of origin and destination of the goods. In Argentina, the main source of income for provincial governments is a cascading turnover tax, which also introduces severe distortions, regardless of the level to which it is assigned. It is scheduled to be replaced by a single stage sales tax as part of the Pacto Fiscal between the central government and the provinces. The cases of Argentina and Brazil illustrate the tradeoff that countries have to make when they engage in significant decentralization of expenditures. They must choose between high degrees of vertical imbalance and the assignment to lower level governments of tax bases that are either distortionary or would be better left to the central government.

There are, however, two tax bases that have been underutilized at the subnational level but have the potential to increase the self-reliance of lower level governments significantly without imposing high efficiency costs. This would help resolve in part the tradeoff discussed in the previous paragraph. The first is the fuel tax, which would be appropriate for subnational governments, since, like the vehicle tax, it can be understood as a user charge for road infrastructure. However, it is only used at the subnational level in Brazil, Colombia and Mexico. The other is a local income tax levied as a supplement to the national income tax. In this case, the cen-

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21 Appendix Table C.2 presents complete information on tax assignment to subnational governments, the level of autonomy that these governments have over the tax bases they collect, and the main changes that have occurred with regard to tax assignment during the last decade.

22 There is discussion in the literature in terms of the extent to which property taxation approximates a benefit tax. For example, some jurisdictions may offer better police, road and fire protection services than others, and pay for them through a higher property tax rate.
Vertical Fiscal Imbalance

The gap between the level of spending required to carry out the responsibilities assigned to subnational governments and the revenues the subnational levels generate themselves is called the vertical fiscal imbalance. This gap is generally bridged through the use of central government transfers, including revenue sharing arrangements. The degree of vertical imbalance for each country is presented in Figure 3.11. For comparison, the figure includes the average for the OECD countries.

The figure points out two key facts. First, vertical imbalance in the region is higher than in industrialized countries. While the average fiscal imbalance for countries in Latin America is 52 percent, in OECD countries it is 42 percent. Second, within Latin America the degree of vertical imbalance varies substantially from country to country.

Is there any association between vertical imbalance and decentralization? Figure 3.12 answers this question for both groups of countries. While there is no obvious association between decentralization and vertical imbalance, a similar pattern appears in each group: the degree of vertical imbalance among relatively centralized countries varies substantially, while the more decentralized

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23 For an analysis of the convenience of implementing local income taxes, see Bird (1993).

24 Two countries share tax bases in the form of piggybacking of local governments on other federal taxes. One is the Dominican Republic, where the central government collects the property tax and local governments apply a surcharge to the federal tax. Peru uses piggybacking for the sales tax. In both cases, it is the national level that sets the surcharge rates.

25 The measure of vertical imbalance is defined as the ratio of intergovernmental transfers from the central government, including tax sharing, over total revenues (own plus transferred) of the subnational level. An alternative measure, also used in the literature on fiscal federalism, is the ratio of transfers and subnational expenditures. Both measures coincide when subnational governments run balanced budgets. The data sources are listed in Appendix D.
countries exhibit less variability within each group. Furthermore, while the more decentralized countries in the OECD have vertical imbalances that average less than 35 percent, decentralized countries in Latin America have an average vertical imbalance of around 50 percent. This suggests that finding good tax bases to assign to subnational governments is more difficult in developing countries.

The high degree of vertical imbalance in decentralized countries in the region creates the potential for coordination problems, particularly if the systems of intergovernmental transfers contain important elements of discretionality, which makes it more likely that central governments will transfer resources to cover fiscal gaps of lower level governments. Coordination problems may also arise if these governments have a large degree of borrowing autonomy, which, combined with high degrees of vertical imbalance, can affect the degree of commitment of the central government not to bail out jurisdictions in financial trouble.

**Expenditure and Tax Assignment: A Joint Decision**

In the fiscal federalism literature, the problem of expenditure responsibility assignment generally precedes the discussion on tax assignment. The reason that has been advanced is that it is necessary to have an idea of what the financing needs at each level of government are when allocating resources among the different levels. Although this reason appears convincing, we believe the issue of expenditure and tax assignment should be addressed together, as suggested by Tanzi (1995). To see this, consider that the decisions regarding decentralization should take into account three possible sources of inefficiency. The first is inefficiency in providing public goods and services; expenditure decentralization can help resolve problems of aggregation and agency. The second is inefficiency in taxation. And the third is the inefficiency introduced by the lack of incentives for fiscal responsibility, which can be associated with large vertical imbalances. Deciding on expenditure assignment first so as to minimize inefficiencies in the provision of services, and later on tax assignment, will inevitably result in too high a level of decentralization. The reason is the failure to account the cost, in terms of the increases in the last two types of inefficiency, of decentralizing expenditures. A joint decision would result in a lower degree of decentralization.

**INTERGOVERNMENTAL TRANSFERS**

While vertical imbalances are mostly covered through transfers from the central government, the design of an effective transfer system is a complicated task. Part of the difficulty comes from the fact that there are a variety of objectives that a transfer system generally addresses: regional equity, achievement of national goals under decentralized provision of services, correction of interjurisdictional spillovers, or simply to fill the gap resulting from the asymmetric assignment of expenditure responsibilities and revenue powers among levels of government. Transfers that are appropriate to further one objective may complicate achievement of another. For these reasons, transfers systems in most countries include a variety of transfers, rather than just one.

What type of transfers do we usually find in Latin America? To answer this question, we use a taxonomy of transfers developed by Bahl and Linn (1992) specifically for the case of developing countries. Transfers are categorized according to two criteria: how the total amount (or total divisible pool) of the transfer is determined, and how it is allocated among the different jurisdictions. The total pool can be determined as a specified share of a tax or group of taxes, as a fixed amount, in an ad hoc or discretionary way, or as reimbursement of approved expenditures (for example, under capitation grants). This total amount is distributed among the different jurisdictions in one of four ways: according to the jurisdiction where the taxes were collected; according to a formula; in a discretionary way, or simply by reimbursing eligible costs. Transfers that reimburse approved expenditures are generally earmarked for use in specific sectors or activities. The rest of the transfers, in general, tend to have few strings attached, and can be used for general purposes. Table 3.4 provides information on the number of transfers in each category for the region as a whole.27

There are many important angles to the design of intergovernmental transfers. Given the scope of this chapter, we will concentrate on those that may have more of

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26 While we do not find a clear association between decentralization and vertical imbalance in our sample of Latin American countries, other authors have. Bahl and Linn (1992) find that vertical imbalance increases with decentralization in a sample of city governments. Their evidence suggests that, in the developing world, the vertical imbalance tends to worsen in countries that go through a process of decentralization.

27 Appendix Table C.3 provides information on the transfer systems. For each country, it shows the percentage of total funds transferred corresponding to each category. Detailed information on the most important transfers in each country is presented in Appendix Table C.4.
an impact on aggregate fiscal performance. Our main concern is the potential for coordination problems when, as a result of high degrees of discretion in the transfer systems, subnational governments do not face hard budget constraints.

**Degree of Discretionality**

Transfers can be discretionary in terms of the determination of the total pool, or with respect to allocation. Table 3.4 shows that more than half of the transfers where the total pool is discretional are also allocated in a discretion- al way. These transfers leave the central government a lot of flexibility to determine the amount to be transferred, and to direct resources to the jurisdictions with the greatest needs. But for the same reason, unless the central government is very strong vis-à-vis the subnational governments, transfers are more likely to result in soft budget constraints for the subnational governments, and thus do not provide adequate incentives for fiscal responsibility. This view is based on the belief that, under discretion, transfers will tend to be allocated to those jurisdictions that are in financial strain, or simply have a gap between their expenditures and their available resources.28

A subnational government could spend excessively, declare that it has no money to pay salaries of public employees, and ask the central government for a bailout. It could cast the blame on the central government and claim it did not get its fair share to begin with. It may be more difficult for the central government to commit to not extend a supplementary transfer to the subnational governments if it has the discretion to do so, compared to a rules-based approach with predetermined formulas. If commitment on the part of the central government is weak, the different jurisdictions will feel that they can shift part of the costs of their programs onto the rest of the country. When this happens, there will be a coordination failure, and a situation may develop in which subnational governments spend beyond their means, and then receive ex-post supplementary transfers from the central government. This can have serious macroeconomic consequences, leading to excessive spending and severe inflationary pressures.

From the perspective of the recipient governments, it is important that transfers be stable and predictable. Discretionary transfers do not score well under this criteria: they are the most unstable and unpredictable, sometimes making it difficult for these governments to adequately fulfill their responsibilities.

There are several transfers in which the total amount is defined in an ad hoc way, but are allocated according to a prespecified formula. The use of this type of transfer is limited to Chile, Colombia and Peru. In this case, the consequences of discretionality may be somewhat less serious. The different jurisdictions will probably bargain with the central government for an increased pool, but the returns they expect from this bargaining process are probably smaller than under full discretion, as they will only receive a small part of any increase in the total transfer. In only a few cases does discretionality apply to the allocation but not to the total amount. An example is the Aportes del Tesoro Nacional in Argentina. This is a very small transfer, so the consequences for aggregate fiscal performance cannot be too large. However, the transfer does not generate the right incentives for fiscal discipline, at least for the smaller provinces, since it is large compared to the budgets of some of these.

To determine which countries rely more heavily on discretionary transfers, we have constructed an indicator that takes into account all the elements discussed above. A detailed description of the measure, which we call the Index of Discretionality of Intergovernmental Transfers, is presented in the following section.
can be found in Appendix A. Figure 3.13 shows the extent to which the transfer systems in each country are characterized by discretionality, both in the determination of the total pool and its allocation.29

Peru and Trinidad and Tobago are the two countries that rely most heavily on completely discretional transfers. Peru is a highly centralized country, where the subnational governments have a small degree of political autonomy. For this reason, it is possible for Peru to have a discretional transfer system without this generating a coordination problem, as the bargaining power of subnational governments is very small vis-à-vis that of the central government. As Figure 3.13 shows, several countries are at the opposite extreme: discretionality does not play a role in their transfer systems. Bolivia, Ecuador, El Salvador and, to a lesser extent, Mexico, have transfer systems somewhere in the middle: they involve a fair amount of discretionality in both dimensions.

**Transfers Determined as a Share of Tax Revenues**

These transfers are the most commonly used in the region. In some cases, allocation is done according to the point of collection of the taxes in question. In this way, a proportion of what is collected in each jurisdiction returns there, which increases incentives for tax compliance, as people know that part of the payment will remain within their communities.30 In most cases, however, the allocation is done according to a predetermined formula, which can include a variety of criteria or simply be the result of past negotiations among the different governments. These types of transfers are by far the most important in Argentina, Brazil, Colombia and Venezuela. They are ideal for equalizing fiscal capacities among the different jurisdictions and often include in the formula criteria related to socioeconomic conditions, such as the percentage of the population with unsatisfied basic needs, the inverse of the income per capita, and population.31

There are several important issues related to all shared tax transfers that can have an effect on aggregate fiscal performance. The first is that this type of arrangement restricts the ability of the central government to undertake fiscal adjustment, particularly in cases where the amount transferred is a significant portion of central government revenues. For example, if the central government increases tax rates in order to close a deficit, a large portion of the new revenues generated through this channel will be directly transferred to the subnational governments, so tax increases will be less effective in delivering the desired adjustment. And there will be an additional unwanted effect: now the subnational governments will have access to (and spend) more resources, precisely when the central government is trying to adjust.32

Another consequence of tying transfers to revenue sources is that, if revenues are procyclical and the environment is volatile, the result is a volatile and procyclical revenue stream for the subnational governments. And, as documented in Chapter 1, macroeconomic volatility and procyclicality of revenues are very much part of Latin America’s economic landscape. The financing needs of the subnational governments do not vary with the cycle, and, ideally, neither should the fiscal resources available to them. During booms, subnational governments experience important increases in their revenues, which they typically spend. Then, during recessions, unless they have borrowing autonomy and good access to credit, they are forced to adjust spending considerably and, due to budgetary rigidities, inefficiently. This story applies to some degree to Argentina, where the boom that followed the Convertibility Plan resulted in explosive growth of revenues from 1991 to 1994, which was transmitted to the provinces through the tax-sharing mechanism. Most

29 The figure excludes those countries for which we did not have complete information on the amounts transferred, such as Brazil, Paraguay and Uruguay.

30 An example is Paraguay, where each department receives 15 percent of the value-added tax collected within its territory.

31 Colombia and Mexico include incentives for fiscal effort among the criteria for allocation.

32 This point has been made in IDB (1994) and in Tanzi (1995). The increase in subnational spending when the central level is trying to adjust has been called “fiscal perversity.”
provincial governments increased spending in line with the increase in revenues. Then, after the Tequila crisis, several of these provincial governments had to go through a costly process of adjustment. This issue has prompted some authors to recommend that transfers to provinces in Argentina be fixed amounts, rather than shares of taxes, or that they be smoothed out in some way. In the region, however, neither fixed transfers nor smoothing mechanisms have been commonly used.

### Conditional Transfers

Conditional transfers are those earmarked to be spent in specific sectors or activities. These transfers are used when the central government wants to impose its spending priorities on the subnational governments. Needless to say, these transfers restrict the autonomy of the subnational governments in deciding how to spend their budget. When a service is provided in a decentralized way, the central government may want to insure that a minimum level of the service is provided in all jurisdictions. This is achieved by setting common minimum standards in terms of access and quality of the services, and at the same time transferring resources, earmarked for the targeted activity, to help attain these standards. The use of conditional transfers is quite common. For the region as a whole, we have estimated that out of every dollar transferred to subnational governments, a quarter is conditional, while the rest have few or no strings attached. The sector of activity most frequently targeted by conditional transfers is education, followed by health, water and road infrastructure.

![Figure 3.14](image)

**FIGURE 3.14**

**Conditionality of Transfers**

(Percent of total transfers that are conditional)

<table>
<thead>
<tr>
<th>Country</th>
<th>Conditionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia</td>
<td>100</td>
</tr>
<tr>
<td>Chile</td>
<td>90</td>
</tr>
<tr>
<td>Brazil</td>
<td>80</td>
</tr>
<tr>
<td>Mexico</td>
<td>70</td>
</tr>
<tr>
<td>Argentina</td>
<td>60</td>
</tr>
<tr>
<td>Venezuela</td>
<td>50</td>
</tr>
<tr>
<td>Peru</td>
<td>40</td>
</tr>
</tbody>
</table>

Note: Transfers in the Bahamas, Bolivia, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Panama, Paraguay, Suriname and Trinidad and Tobago are unconditional.

A classic example of the use of matching grants is for the construction of interstate roads. Since this kind of infrastructure project also benefits those living in other states who do not contribute with their taxes to cover the costs, the government at the central level can finance a portion of the investment to avoid underprovision of roads. The extent of cost sharing between the central level and subnational governments should be consistent with the degree of spillover. The use of matching transfers is not widespread in Latin America, however. Only four countries—Bolivia, Colombia, Mexico and Venezuela—have some kind of matching grant program in place. A drawback of matching grants is that they tend to be allocated to richer jurisdictions, which are in a better position to provide the counterpart funds.

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SUBNATIONAL GOVERNMENT BORROWING AUTONOMY

The rules regarding borrowing by subnational governments in Latin America vary considerably from country to country. Our interest in this issue stems from the fact that, as in the case with discretionary transfers, borrowing autonomy can potentially lead to soft budget constraints for the subnational governments. At the heart of the matter is the commitment problem: it is often difficult for central governments to commit not to bail out state and local governments when they are in financial trouble. This is a case where the commitment and coordination problems are complements: absent the ability of central governments to commit, borrowing autonomy will result in coordination failures, leading to irresponsible fiscal behavior on the part of the subnational governments.

A case can be made for allowing state and local governments some capacity to borrow. Because the benefits of investments such as schools or roads are spread over time, it makes sense to borrow (at least to some extent) so that payments are spread over time as well, rather than have the current taxpayers foot the whole bill. However, state and local governments should not borrow past the point where the rate of return (economic and social) on the marginal investment project being undertaken with the borrowed funds is equal to the interest rate. At this point, the cost of an additional project funded through debt would be higher than its benefit. These governments, however, might want to borrow beyond this point if they think they can shift part of the cost of repayment onto others outside the jurisdiction, such as the central government. Moreover, when the risk of bailouts exists, markets are clearly not an adequate disciplining device. If lenders expect the central government to bail out the local governments in the case of default, they will be ready to accommodate the borrower. In this case, constraints on subnational government borrowing may be the right policy.

The key, then, is whether borrowers and lenders believe the cost of repayment can be shifted to the national government. The important question is what determines the ability of central governments to commit not to bail out local governments? There is still a lot to be learned in order to answer this question, but there are a few hypotheses. Eichengreen and Von Hagen (1996) have argued that an important factor is the degree of vertical imbalance. If the subnational governments have robust tax bases available to them, and generate a large part of their revenues themselves, central governments will find it easier to ask them to bear the cost of adjustment in case of financial difficulties. If, in contrast, subnational governments have weak tax bases and most of their resources are transfers from the central government, it will be costly for the subnational government to resolve the crisis by itself, and therefore difficult for the central government to commit not to extend a bailout.

One could argue that what matters is not only the degree of vertical imbalance, but also the capacity of the subnational governments to autonomously decide on issues of tax policy. For example, in Colombia, subnational governments collect several taxes, and as a result vertical imbalances are relatively small. However, subnational governments cannot autonomously determine the tax base or the tax rates. In cases such as this, all a state can do to increase revenues is to strengthen tax administration.

Another factor that affects the degree of the central government’s commitment is the existence or absence of public banks owned by subnational governments. When subnational governments own banks, these banks often are the primary source of government debt. Particularly in the case of large jurisdictions, it might be difficult for the central bank not to rescue a financially troubled state bank, since failure to do so might result in the collapse of the payments system. Knowing this, state banks and governments may not face a strong constraint. This mechanism has been important in some of the larger Brazilian states, where vertical imbalances are among the smallest in the region, but where the state governments have relied heavily on state banks for financing, and where the governments and their banks have been characterized by the lack of an arm’s-length relationship.

To what extent is there borrowing autonomy at the subnational level in the countries of Latin America and the Caribbean? There are a number of aspects that can affect the degree of borrowing autonomy. The first five relate to constraints on subnational borrowing and the last two to borrowing practices that might weaken these constraints. Table 3.5 summarizes the types of borrowing rules present in each of the countries studied. A more detailed and complete description is included in Appendix Table C.5.

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34 It is also possible that, if the projects being financed have a high social return but do not produce a stream of revenues that allow for their repayment, financial constraints will force governments to borrow below the optimal level.


36 Naturally, cutting expenditures is also a possibility.
Are Subnational Governments Allowed to Borrow?

Although there are considerable differences in the degree of autonomy, subnational governments in the region generally do have the ability to borrow. An exception is the Bahamas, where local governments cannot contract debt. In Chile, borrowing by subnational governments requires a specific law that needs to be approved by a qualified majority if the repayment period exceeds the presidential term. No such laws were approved in the period under study, and for this reason in the survey the answer was that subnational governments cannot borrow. Mexico and Venezuela do not allow subnational governments to contract external debt.

Is the Borrowing Decision Autonomous?

The rules regarding borrowing authorization vary significantly across countries. Of the 18 countries for which we obtained information, seven require central government authorization for all borrowing: Bolivia, Brazil, Guatemala, Honduras, Panama, Dominican Republic and Venezuela. Subnational governments may contract internal debt without central government approval in Argentina, Colombia, Mexico, Peru and Uruguay. In Ecuador, subnational governments can borrow from any source without authorization by the central government.

How Is Subnational Debt Guaranteed?

National guarantees on subnational government debt could have ambiguous effects on their access to borrowing. These guarantees make the subnational governments better subjects of credit, but they are usually accompanied by central government authorization requirements, so the central government has the prerogative to restrict borrowing by lower level governments. And many governments do exercise this prerogative with caution.

There is, however, a mechanism that has been gaining importance recently in several countries, namely Argentina, Brazil, Colombia and Mexico, whereby future tax sharing funds corresponding to a jurisdiction are used to guarantee the jurisdiction’s debt. What is peculiar about these arrangements is that in case of default, the money is collected by the creditor directly from the central government before being transferred to the subnational government. In this way, as long as a large enough portion of the future tax sharing funds have not been committed, the creditor is in fact subject to the central government’s risk, rather than the risk of the jurisdiction. Even
when in some cases these guarantees also require the approval of the central government, it is difficult to deny the use of what are, after all, resources of the subnational government. Therefore, central governments have been much more liberal in allowing these guarantees, in contrast to cases where they extend guarantees with their own funds. In some cases, this has significantly improved the access of subnational governments to credit while reducing the cost of borrowing. On the downside, it is another way in which the discipline that markets can impose is bypassed, since all jurisdictions tend to be perceived as having similar risk regardless of their fiscal performance.

What Are the Numerical Constraints on Subnational Borrowing?

Numerical borrowing constraints on subnational governments in a number of countries are of two types:

- Quantitative constraints either by law or the constitution specifying that the debt service (or debt) cannot exceed a given percentage of current revenues. Examples are most provinces in Argentina (debt service has to be below 20/25 percent of current revenues), departments in Colombia (debt/current revenue cannot exceed 80 percent, or interest payments/operational savings cannot exceed 40 percent), and municipalities in Costa Rica (debt service on nonrevenue-generating investment projects cannot exceed 10 percent of ordinary revenues).

- Limits that restrict the ability of the national financial system to lend to subnational governments. This is the case in Brazil, where lending to subnational governments cannot exceed the 1989 figures (in real terms), and in Colombia.

There is ample evidence from state governments in the United States suggesting that numerical constraints have a significant constraining effect on deficits and debt. These constraints offer subnational governments some degree of autonomy, within well specified bounds. The problem with numerical constraints is that they often generate incentives to circumvent them through creative accounting. In some cases, the limits have not been respected. A number of subnational governments in both Colombia and Argentina are above those limits today.

Are there Limitations on the Use of Debt by Subnational Governments?

Eight countries in the region impose constraints on the use of borrowed funds by subnational governments. For the most part, these countries have adopted what has been called the "golden rule," which stipulates that borrowing may only be used to finance investment. If enforced, this rule implies that the government's current saving cannot be negative, which imposes discipline on the budget process. Since investments produce benefits spread over time, financing them through borrowing allows payments to be spread over time as well. Some countries allow borrowing for structural reforms (Argentina) or for severance payments (Colombia). These activities could also be viewed as investments whose benefits are spread over time. In contrast, borrowing to finance current expenditures or budget shortfalls cannot be justified on the same grounds. Half of the countries do not impose any restrictions on the use of borrowed funds (see Table 3.5).

Do Subnational Governments Own Banks?

The three countries where subnational governments own banks are, not coincidentally, the three countries where the extent of subnational indebtedness is highest: Argentina, Brazil and Colombia. In Argentina and Brazil, the state banks have played a particularly large role in financing the state governments. In Colombia, the presence of state banks has been much less important. The lack of an arms-length relationship between the government and its bank ensures easy access to financing, and limits the ability of the market to impose discipline. Apart from significantly increasing government borrowing autonomy, the close link between the government and the bank causes two further problems: first, it softens the budget constraint for the government by increasing the bailout risk, which may result in overborrowing by subnational governments; and second, the state banks usually do not operate according to business criteria, but often allocate credit according to the political priorities of the government. This can result in the bank running into trouble and needing a government rescue, in turn weakening the fiscal solvency of the government. Argentina and Brazil, however, are taking measures to reduce the exposure to the problems posed by state banks. An important process of privatization of the state banks in Argentina covers most of the provinces. In Brazil, new rules limit the capacity of state governments to borrow from their banks.

Do Subnational Governments Own Public Enterprises with Liberal Borrowing Practices?

Even the most stringent of rules for borrowing by subnational governments can be undone if there are large public enterprise sectors with liberal borrowing practices. The
The section on budget institutions in the previous chapter focused attention on the institutional arrangements that govern the budget process at the national government level. The form of these arrangements, however, is important at every level of government. Collecting and processing data on budgetary and other fiscal institutions for lower level governments would obviously have been an enormous task, well beyond the scope of this study. However, a recent study by Sanguinetti and Tommassi (1997) has done precisely that for the Argentine provinces. The study shows that provincial fiscal institutions are an important determinant of provincial fiscal performance.

The authors collected substantial information on institutional arrangements related to the budget process at the provincial level in order to build an index that captures the strength of these institutional arrangements. The index is based on the following institutional aspects:

- Restrictions imposed on the legislature to amend the budget proposal submitted by the governor. These range from inability to modify spending and the deficit to no restrictions.
- Arrangements regarding instances when the budget is not approved by the start of the fiscal year. Only one province enacts the budget submitted by the governor. In the rest, the previous year’s budget is adopted.
- Strength of borrowing restrictions. Provinces differ on the kind of majority needed in the legislature to approve new debt, the existence and stringency of numerical restrictions, and restrictions on the use of debt.
- Strength of borrowing restrictions at the municipal level, based on the same criteria as above.
- Degree of independence from local authorities of fiscal auditing agencies, based on faculties, composition, method of appointment of members, and length of tenure.
- Characteristics of the tax sharing agreements between the provincial governments and their municipalities. In particular, the degree to which the distribution mechanism is discretionary or responds to predetermined criteria, and the appropriateness of the criteria used.
- Presence of explicit references in the provincial constitution regarding promotion of specific economic activities.

For each of these categories, the authors assigned the provinces values between 0 and 10, according to the nature of their institutional arrangements, with higher scores reserved for those which were more hierarchical, imposed more stringent borrowing constraints, and led to a higher degree of transparency. The Index of Fiscal Institutions for the provinces that results from adding the scores of all these categories for each province is presented in Figure 3. A.

Figure 3. B shows a negative association between the Index of Fiscal Institutions and the size of the provincial primary deficits over 1983-96. Thus, for the case of Argentine provinces, the design of fiscal institutions does matter for fiscal outcomes. This important result obtained by Sanguinetti and Tommassi suggests that efforts at reforming fiscal institutions at the subnational level appear to be well justified.

### Box 3.1. Fiscal Institutions at the State Level: the Case of Argentine Provinces

The section on budget institutions in the previous chapter focused attention on the institutional arrangements that govern the budget process at the national government level. The form of these arrangements, however, is important at every level of government. Collecting and processing data on budgetary and other fiscal institutions for lower level governments would obviously have been an enormous task, well beyond the scope of this study. However, a recent study by Sanguinetti and Tommassi (1997) has done precisely that for the Argentine provinces. The study shows that provincial fiscal institutions are an important determinant of provincial fiscal performance.

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subnational government often ends up paying the bills for the public enterprise. The bulk of the debt of the province of Buenos Aires was originally contracted by the electricity company, ESEBA, and was later taken over by the province. Countries where public enterprises have relaxed borrowing rules are Argentina, Brazil, Ecuador and, to a lesser extent, Mexico, where borrowing requires the approval of the state government.

Measuring Borrowing Autonomy

Taking into account all the elements discussed above except the guarantees, we built an index of borrowing autonomy at the subnational government level for the countries in Latin America and the Caribbean. Obviously, those countries where subnational governments cannot borrow have 0 autonomy. Of the other criteria, higher weights were given to the issues of bank ownership by subnational governments and to government authorization. The values of the index (which has a maximum of 4 points) for each of the countries are presented in Figure 3.15.37

Notice that Argentina, Brazil and Colombia, the three countries where subnational governments are most heavily indebted, also have the highest degree of borrowing autonomy.

DECENTRALIZATION AND FISCAL PERFORMANCE

As we have described the extent of decentralization and the nature of intergovernmental relations in the region, the question of the possible effects on fiscal performance has loomed in the background. We stressed that while decentralization can improve on problems of aggregation and agency, it has the potential to aggravate problems of coordination, especially when the central government finds it hard to commit not to come to the rescue of subnational governments in trouble. These coordination problems associated with decentralization may be more serious when there are large vertical imbalances combined with a system of intergovernmental transfers characterized by discretionality, or with a substantial degree of borrowing autonomy of the subnational governments. This section discusses the impact of the extent and structure of decentralization on government size.38

Decentralization and the Size of Government

We use data on the degree of decentralization, as well as on vertical imbalance, borrowing autonomy, and the degree of discretionality in the transfer system to explore whether these variables have an impact on the size of government. In discussing the possible impact of decentralization on government size throughout this chapter, our main focus has been the extent to which problems of coordination, namely, the commons problem, are likely to exist. However, there are other channels—reviewed in Box 3.2—through which decentralization may affect government size.

What impact would we expect our institutional variables to have on the size of government? Let us begin with decentralization, defined as the percentage of government expenditures executed by the subnational levels of government. As discussed in Box 3.2, there are several channels through which decentralization can affect size, and they do not all go in the same direction. Our discussion suggests that decentralization could reduce size if the degree of vertical imbalance is low (through increased government competition, which reduces agency problems, and reduced exposure to coordination problems across jurisdictions), but increase it if the degree of vertical imbalance is large (increase in likelihood of coordination problems, and flypaper effect). So the theory does not give a clear prior of what to expect in terms of the pure effect of the degree of expenditure decentralization on government size.

The expected effects of vertical imbalance are more

37 A detailed explanation of the formula used to construct the index is included in Appendix A.
38 We did not find an association between decentralization and other fiscal performance indicators, such as deficits, debt and procyclicality.
The larger the degree of vertical imbalance, the greater the potential for coordination problems, since a larger vertical imbalance increases the incongruence between those who benefit and those who pay for government programs. However, we do not expect this effect to be the same for countries with different degrees of decentralization. For example, large differences in government size would not be expected in a country where 95 percent of government spending corresponds to the central government, regardless of whether the remaining 5 percent spent at the local level were financed with own revenues or through central government transfers. In contrast, vertical imbalance is expected to have a larger impact where the extent of expenditure decentralization is larger. For this reason, rather than exploring the effects of vertical imbalance alone, we will instead consider the product of decentralization and vertical imbalance as an explanatory variable. This product represents the extent to which there are government programs characterized by local benefits financed out of national taxation.

Finally, we also want to capture in some way the effect of having hard or soft budget constraints at the subnational level. Following the arguments in Eichengreen and Von Hagen (1996), we use the product of vertical imbalance and borrowing autonomy as an indicator of soft budget constraints, or, more specifically, as a measure of difficulty for the government to commit not to bail out subnational governments. The product of vertical imbalance and borrowing autonomy will likely have a positive impact on government size, and this impact will be greater, the larger the degree of decentralization. For this reason, we will explore the impact of the product of these three variables—decentralization, vertical imbalance, and borrowing autonomy—on government size. As an alternative, we use the degree of discretionality in the transfer system in place of borrowing autonomy to capture the stringency of the budget constraints. One drawback of discretionality is that data is available for a smaller set of countries.

The results of the formal statistical analysis are included in Appendix B. The most important findings can be summarized as follows:

Decentralization has a positive effect on the size of government: In our sample of Latin American and OECD countries, the degree of expenditure decentralization has a positive effect on the size of government. Figure 3.16 presents the association between these two variables. The vertical axis represents the size of government left to be explained after other determinants, such as the proportion of the population over 65 years of age, the level of government debt, and openness. If the difference between two countries in terms of the degree of decentralization is 20 percentage points, the more decentralized one will have, on average, a government sector larger by four percentage points of GDP. If GDP per capita was used as a control variable instead of the age variable, GDP per capita was not included as a control in our preferred regressions because it did not have a significant impact on government size when used in a regression together with the age variable, which in turn remained significant.

Note: The residuals are calculated from the regression of government expenditures over control variables: debt at the beginning of the period, population over 65 years old, and openness.

Similar results were obtained when GDP per capita was used as a control variable instead of the age variable. GDP per capita was not included as a control in our preferred regressions because it did not have a significant impact on government size when used in a regression together with the age variable, which in turn remained significant.
Box 3.2. Channels through which Decentralization Can Impact the Size of Government

**Government competition:** This channel is associated with the monolithic view of government, as posed by Brennan and Buchanan (1980). The impact of decentralization on government size occurs by reducing the importance of the agency problem. The government is characterized as a leviathan that seeks to maximize revenues. This is facilitated under centralization, since the government has monopoly power over the tax base. Under decentralization, mobility across jurisdictional borders assures some degree of competition among governments to lure taxpayers into their territory by providing a more attractive fiscal bundle. This competition imposes constraints on the fiscal appetite of the governments. As a result, the size of government should decline with decentralization. How does the Brennan and Buchanan story view tax sharing by different levels of government? As collusion among the different levels of government? The original test of this theory was by Oates (1985), who explored the relationship between decentralization and government size for a cross-section sample of 43 countries, as well as for the U.S. states, finding no support for the leviathan hypothesis. Although some studies find evidence in favor of the hypothesis, those that are based on a cross-section of countries generally fail to find such support (Oates, 1994, p. 148).

**Political participation:** If decentralization, by improving on the aggregation and agency problems, produces a better match between the preferences of the population and the fiscal bundle they obtain, should this lead to smaller or larger governments? Oates (1985) suggests that it may lead to larger governments, as people will entrust the government with more tax revenues, knowing that these revenues are going to be spent in a way that closely matches their preferences. This intuition contrasts with some evidence showing that more political participation is associated with smaller government. Pommerhene and Schneider (1983), for example, explore the impact of direct democracy on government size for a sample of Swiss cantons. Cantons that practice direct democracy, as opposed to representative democracy, have smaller government, other things equal. Is Oates’ intuition incompatible with this evidence? Not necessarily. Let us assume that, as in the Brennan and Buchanan view, public officials have a preference for larger government. In this case, increased participation could have two different effects. On one hand, it would increase the control of the population over the actions of the public officials, reducing the agency problem. This ensures that the actual size of the government will be closer to the population’s desired size. But at the same time, it may increase the population’s desired size. What this means is that, under a social planner, decentralization would, through this channel, lead to larger governments. However, if one assumes that public officials act on their self-interest, this increase in desired size could be accompanied by a decrease in actual size if, in jurisdictions where participation is lacking, governments are much larger than people want them to be.

**Economies of scale:** If economies of scale in the provision of public services are substantial, decentralization may result in larger governments.

**The flypaper effect:** Governments that receive transfers tend to spend more out of these transfers than they would out of a similar increase in the income of the population. In other words, if the intergovernmental transfer were directly sent to the citizens of a jurisdiction rather than to the government, spending would increase by a much smaller amount. This strong empirical regularity, which has been called the “flypaper effect” because it poses that money tends to stick where it hits, does not have strong theoretical foundations, so much so that it has appeared in the “Anomalies” section of the Journal of Economic Perspectives (Hines and Thaler, 1995). For our purposes, the implication of this effect is that decentralization could lead to larger governments, provided an important part of spending by the subnational governments was financed through transfers.

**The problem of the commons:** The effect of decentralization on size through the commons problem channel is not straightforward. It will depend on the way decentralization is structured. Let us assume a system where all government programs with local benefits are provided at the local level, while those that have national benefits (such as defense) are provided by the national government. Let us further assume that all local programs are financed through local benefit taxes in such a way that there is no need for intergovernmental transfers. In this case, decentralization should help control the problem of the commons, since it substantially reduces the degree to which programs with geographically concentrated benefits will be financed by the country as a whole (Oates, 1989). To the extent that a commons problem remains, it will be within each jurisdiction, and not across jurisdictions. If jurisdictions are sufficiently small, in this ideal world, all the cost of government programs will be borne...
by those who benefit from them, so the socially optimal quantity of those programs would be demanded.

Now let us assume that, due to the difficulties of finding good tax bases for subnational governments, revenues remain centralized to a large degree, while expenditures are decentralized exactly as described above. In this case, the commons problem might become more serious, since the correspondence between those who benefit and those who pay is broken. The degree to which the commons problem becomes serious will depend to some extent on the design of intergovernmental transfers. If transfers are automatic, responding to a certain predetermined formula based on a set of criteria, the problem only occurs at the point in time when the formula was determined, since the same factors that result in overspending when the budget is discussed in congress can result in transfers that are larger than is socially optimal when congress decides on them. If transfers are discreional, the situation may become worse if the transfers tend to be allocated to those jurisdictions that are in financial trouble. If this is the case, subnational governments will have incentives to overspend, and then ask the central government for additional funds. If the cost of getting out of financial trouble is much higher for the subnational government than for the central government (which might occur due to the wider tax base of the national government), the subnational government may expect to get away with this.

Even larger problems may be introduced by a large degree of borrowing autonomy at the subnational levels of government. In this case, the possibility of overspending before additional transfers are approved is facilitated by the greater access to borrowing. Subnational governments can go ahead and build a bridge or a hospital, and then ask the central level for additional funds once the project has been executed. Eichengreen and Von Hagen (1996) have suggested that this risk diminishes the greater the degree of control by the subnational governments of their revenue sources. Their reasoning is that, if these governments have substantial control over their revenue sources, i.e., a low degree of vertical fiscal imbalance, they can be expected to shoulder themselves the cost of getting out of financial trouble. In this case, the central government will find it easier to commit to say no to a bailout request, thus reducing or eliminating the moral hazard problem.
calf relations structured in a way that promotes fiscal responsibility matter even more.

These results suggest that coordination problems are in fact something with which decentralized countries should be concerned. The results highlight the importance of exploiting as much as possible the capacity of state and local governments to efficiently generate revenues to reduce the degree of vertical imbalance, and, more generally, of organizing intergovernmental relations in a way that promotes responsible fiscal behavior on the part of the subnational governments.

**TOWARDS AN AGENDA FOR FiscALLY Sound DECENTRALIZATION**

Decentralization has the potential to improve on the aggregation problem by bringing decisions closer to voter preferences. It can also improve on the agency problem by making governments more accountable. However, by creating the possibility of interaction between different jurisdictions, decentralization may give rise to potential coordination problems that may manifest themselves in soft budget constraints.

We have found that decentralized governments tend to be larger. This result is consistent with several interpretations. One is that because local governments can be trusted to deliver public goods more in line with voter preferences, they are given more resources to manage. Hence, this result per se is no indication of inefficiency. However, we have also found that the form that decentralization takes also affects size. In particular, arrangements that are more likely to lead to soft budget constraints seem to be associated with larger size. This evidence is a clearer indication of political distortions at work.

To achieve a well functioning system, it is important that the decentralization process be organized in such a way that it can deliver the goods (a better match between voter preferences and government actions, and improved accountability) without falling into the pitfalls of coordination failures. Achieving this involves improving democratic institutions and hardening budget constraints.

**Improve Democracies**

Local democracy functions well if it makes public decisions follow social preferences and keeps politicians and bureaucrats honest and accountable. This requires civic participation, clear rules for the financing of elections and political parties, a free, fair and competitive press, and a well functioning judiciary. Otherwise, lobby groups might find that it is both possible and in fact cheaper to exert undue influence on local governments than it is on national governments, media moguls may become kingmakers, important areas of public life may escape social scrutiny, and the perception of impunity may have very corrosive effects. Well functioning political systems are a must for well functioning governments at any level.

**Harden Budget Constraints on Subnational Governments**

This chapter has stressed that decentralization is a complex issue that involves a variety of dimensions, including assignment among levels of government of the power to tax, responsibilities for government programs, the ability to borrow, and the nature of intergovernmental transfers. The failure to organize these interrelated dimensions in a consistent way may lead to soft budget constraints on the subnational governments. Addressing the problem of soft budget constraints, therefore, requires a consistent design in all these dimensions.

**Efficiently Limit Vertical Imbalance**

A large degree of vertical imbalance generates incentive problems in resource allocation at the local level because spending initiatives need not be put through the test of having local citizens be willing to pay for them. However, vertical imbalances are inevitable because many tax instruments are more efficiently managed in a centralized fashion. Revenue centralization allows the achievement of economies of scale in collection and reduces the distortions and inequities associated with assigning mobile or unevenly distributed tax bases to the state and local governments. However, every effort should be made in decentralized countries to reduce the extent of vertical imbalance by assigning to state and local governments those revenue sources they can efficiently exploit, and by ensuring that those revenue sources are not underutilized.

User charges should be established whenever possible, and the charge should be enough to cover the cost of providing the service. Property and vehicle taxes should be assigned to lower level governments, and valuations should reflect market realities. In some cases, fuel taxes and supplementary local income taxes could be assigned to lower level governments as well in order to help reduce the degree of vertical imbalance. Strengthening tax administrations at the state and local government level can help reduce this problem as well.
Adopt Stabilizing and Nondiscretionary Transfer Rules

Even after the best efforts are made to increase the tax capacity of local governments, vertical imbalances will remain and the decentralization process will need to define a system of transfers. Two important design principles to follow are nondiscretionality and stabilization. Discretionary transfers create incentives for subnational governments to overspend and force additional transfers. Discretionality is reduced if there are clearly established criteria, not subject to manipulation, that define both the total amount of the transfer and its distribution.

While it is common for transfer rules to be based on a share of the revenues collected either from specific taxes or from total revenues, there are good reasons to avoid these formulas. First, they lead to transfers that are unstable and procyclical as their source. This puts unnecessary strain on all state and local political systems that are as likely to have enormous problems dealing with fluctuations as does the national government. Hence, it is best to have the central government provide stabilization services instead of imposing this burden on each subnational government. Second, rules based on shares of revenue make it harder for the central government to close fiscal gaps, because they allow government spending at the subnational levels to increase whenever central government revenues rise.

Transfers based on the principle of notional cost reimbursements can be particularly effective for financing social services. If they are distributed according to a capitation formula, i.e., a fixed amount of money per person served, they define not only a clear rule but also an important price signal. It is a way to implement the principle that budgetary resources should follow outcomes, not inputs. The Chilean education example is a case in point. Moreover, these transfers do not have the procyclical attributes of the ones discussed above, and thus provide a more stable revenue stream for subnational governments.

Clarify Roles by Avoiding Concurrent Responsibilities

Budget constraints are also softened by the lack of a clear division of responsibilities between the central and subnational governments. In many countries, the decentralization process has involved not an outright transfer of functions and accountability but instead a shared arrangement where two or more levels of government end up providing the same service, be it primary education, housing or road maintenance. Through this mechanism, local governments can extract resources from the central government by choosing to underprovide in areas of joint responsibility and force the central government into additional spending in their jurisdictions. For this reason, a clear separation of roles and responsibilities can permit better control of central government budgets, better planning and provision of services, and a more transparent use of subnational resources.

Set Tight Limits on Subnational Borrowing Authority

Another soft budget constraint is the ability of subnational governments to overborrow in expectation of a federal government or central bank bailout. In this respect, it is important to consider the following options.

Some governments, such as Chile, have opted for prohibiting autonomous borrowing. This has the advantage of limiting coordination problems but at the cost of severely restricting the investment capacity of state and local governments, unless funds are made available in some fashion. Other countries have opted for more autonomy. In this case, it is important that the budget institutions at the subnational level be properly designed. One critical element is the existence of constraints on the deficit. We argued in Chapter 2 that, for the case of national governments, fixed deficit provisions such as balanced budget rules are either inefficient or unworkable, given the amount of volatility common in Latin America. This would still be true at the subnational level if the central government did not provide a stabilized flow of transfers. However, as we have suggested, if such stabilization mechanisms are put in place, then tight limits on borrowing may be an important component of subnational budget institutions. In fact, in the United States, 49 of 50 states have freely adopted some form of a balanced budget rule.

Subnational governments should either not own banks, or these institutions should be restricted from lending directly or indirectly to their owners. Otherwise, governments might be able to circumvent their own budget institutions and force the central bank into providing a bailout, as has happened all too often.

Also, clear limits should be put on the ability of subnational governments to give their claim to future transfers in guarantees for new loans. While such an arrange-
ment may reduce the cost of finance by transferring the risk to the national government, it limits the ability of the market to signal the unsustainability of the fiscal position until the guarantee is exhausted. By then, the government may be excessively overindebted.

Finally, a proper framework should be put in place to allow for project finance. Subnational governments should be able to pledge the cash flow of a development project so as to secure finance. However, clear default rules should be enacted so as to clarify property rights and restrict the possibility of bailouts.

We started this study noting that Latin America is becoming more democratic and more decentralized. At the same time, fiscal performance has been improving and economic reforms advancing at a dazzling pace in many countries. This achievement is quite impressive given the difficulties in reigning in some of the pitfalls of collective choice. By comparing the performance within the region and contrasting its features with those of the industrial economies, we were able to identify some of the ingredients for success. Although important challenges remain, the task ahead does not look as arduous as the job already done. Institutions can be developed and improved to assure that the goal of democratic participation goes hand in hand with the goals of sound fiscal performance, economic stability and growth.
REFERENCES


INDEX OF BUDGET INSTITUTIONS

The Index of Budget Institutions (IBI) is based on a survey conducted at the IDB by Alesina, Hausmann, Hommes and Stein (1996). Budget directors in 20 countries in Latin America and the Caribbean responded to the survey, which provided information about current arrangements regarding the drafting, approval and execution of budgets, as well as the changes in these arrangements that have occurred since 1980. A detailed explanation on the data set used and their sources is provided in Appendix D.

The index is based on a set of 10 characteristics covering the three types of budgetary rules outlined in the main text. For each of them, countries were assigned a score between 0 and 10, where higher values reflect the existence of constraints on the deficit, hierarchical rules, and transparent practices. For the case of institutional arrangements that ranged in the middle of these extremes, we assigned intermediate scores according to the number of possible answers. For example, if a question admitted three answers, the possible scores were 0, 5 and 10. If there were four possible answers, the scores were 0, 3.33, 6.66 and 10.

Three of the survey questions related to constraints on the budget deficit. Question 1 inquired about the existence of constitutional or legal constraints on the fiscal deficit, such as balanced budget rules. Countries with such rules would have been assigned 10 points (no countries had such an arrangement), while the rest were assigned 0 points. Question 2 asked about the extent to which a previously approved macroeconomic program imposes constraints on the executive branch’s discretion in drafting the budget. The highest score (10) was given to countries that answered that the macro program is an important constraint in formulating the budget submitted to the congress, while 0 points were assigned to countries where the executive has no role in the spending ministers during the drafting stage. The highest scores were assigned to countries where the finance minister has a considerably higher standing than the spending ministers in budget discussions. Question 3 asked about constraints on the legislature regarding amendments to the government’s proposed budget. Countries where amendments cannot increase the size of the budget and the deficit were assigned 10 points. Simply limiting the ability of the congress to increase deficits (rather than spending) is not the same, since it leaves a loophole for congress to increase the expenditure level and at the same time to pass legislation creating new revenues. The most collegial institutions (which were assigned 0 points) are those where there are no constraints on the congress. Question 6 asked what happens if the budget is rejected or not passed by congress within the constitutionally established time frame. The most hierarchical arrangement is the one in which the budget proposed by the executive is executed even if congress rejects it or fails to approve it (10 points). We considered that the case in which the previous year budget is adopted is more favorable to the government than the case in which a new budget has to be presented to congress, as long as the government can redistribute spending between items. Question 7 asked whether the budget can be modified after approval by congress, and on whose initiative. The highest scores were assigned in the case where it is not possible to modify the budget. Those systems in which the initiative to modify the budget falls on the government were considered more hierarchical than those in which it can be modified on the initiative of congress.

The next questions dealt with procedural rules during the drafting, approval and execution stages of the budgetary process. Question 4 addressed the issue of the relative standing of the finance minister vis-à-vis the spending ministers during the drafting stage. The highest scores were assigned to countries where the finance minister has a considerably higher standing than the spending ministers in budget discussions. Question 5 asked about constraints on the legislature regarding amendments to the government’s proposed budget. Countries where amendments cannot increase the size of the budget and the deficit were assigned 10 points. Simply limiting the ability of the congress to increase deficits (rather than spending) is not the same, since it leaves a loophole for congress to increase the expenditure level and at the same time to pass legislation creating new revenues. The most collegial institutions (which were assigned 0 points) are those where there are no constraints on the congress. Question 6 asked what happens if the budget is rejected or not passed by congress within the constitutionally established time frame. The most hierarchical arrangement is the one in which the budget proposed by the executive is executed even if congress rejects it or fails to approve it (10 points). We considered that the case in which the previous year budget is adopted is more favorable to the government than the case in which a new budget has to be presented to congress, as long as the government can redistribute spending between items. Question 7 asked whether the budget can be modified after approval by congress, and on whose initiative. The highest scores were assigned in the case where it is not possible to modify the budget. Those systems in which the initiative to modify the budget falls on the government were considered more hierarchical than those in which it can be modified on the initiative of congress. Question 8 asked whether the government can cut spending after the budget is passed. The highest scores were given to countries where the executive can cut the budget only when revenues are lower than projected. Intermediate scores were given to countries that can cut the budget without restrictions, since in this case, the executed budget might not reflect the spending priorities implicit in the budget passed by congress, rendering the process less meaningful and transparent. A score of 0 was assigned to those countries where the executive cannot...
cut spending unilaterally under any circumstance. Questions 9 and 10 captured other important aspects of transparency. In particular, they focused on whether other public agencies, through their borrowing procedures, can make the budget less disciplined, less controlled and less transparent. Question 9 asked about the conditions under which the central government will assume debt originally contracted by other agencies, and the frequency of this occurrence. The budgetary process was considered more transparent if the central government only assumes debt that it explicitly guaranteed, and if this is an infrequent occurrence. Question 10 inquired about the borrowing autonomy of public enterprises. The highest marks (10) were assigned to countries where these agencies cannot borrow autonomously, while 0 points were assigned to those where these enterprises have no restrictions on borrowing.

Based on the responses to these 10 questions, the Index of Budgetary Institutions was constructed simply by adding the scores for each country. Since our fiscal performance database covers 1990-95, our index was defined as the average value for each country for this same period. This average is needed, since some countries have reformed some aspects of their budget institutions in recent years. For the purpose of comparability with European data on budget institutions, provided by Von Hagen, the index was normalized to vary between 0 and 1.

**ACTIVITY DECENTRALIZATION INDEX**

An Activity Decentralization Index (ADI) is constructed to try to measure two aspects complementing the information content of the mere quantitative decentralization share of subnational spending. The first question to be answered with the aid of the ADI for the region as a whole is which activities have typically been prone to be transferred to the subnational governments and which ones remain highly centralized? The second question is, for each country, to what extent have responsibilities for the provision of public services been moved from one level of government to another?

Four different aspects of decisionmaking power are considered when defining the index:

- Which level of government decides the amount spent on a particular activity?
- Which level of government decides on the structure of the spending (e.g., recurrent costs vs. investment spending, school construction vs. textbooks, etc.)?
- Which level of government decides on subcontractors and hiring and disburses the public funds?
- Which level of government supervises the service delivery (standards, regulation, etc.)?

All information comes from an IDB questionnaire that has been answered by officials in the countries, most of whom are in charge of intergovernmental relations in their respective ministries. Additional information on the data set used and their sources is provided in Appendix D.

The ADI was built for the situation in 1996 and in 1985. All four aspects (amount, structure, execution, supervision) have the same weight of 25 percent. When for a particular activity the central government or its agencies is the sole public body taking a decision (i.e., only the central government decides on the amount and the structure, and executes the spending and supervises), the value for each of the four aspects is 0. To obtain ADI, the four values (for the four decisions) are added up after applying a weight of 25 percent to each decision. When a subnational government is the only government responsible for decision making, the value is 1 for each decision. Weighting by 0.25 and adding up results gives an ADI of 1 if all four decisions are taken by the subnational governments alone. If the two levels of governments share the decision power, the value is 0.33 if the central government is considered more important, 0.5 if both governments are equally important or no information on relative importance is available, and 0.67 if the subnational government is more important. The ADI per country is the unweighted average over all 20 activities. The ADI per activity is the unweighted average over all countries. ADI measures only the relative importance of different layers of the public sector and is not affected by privatization.

**INDEX OF POLITICAL AUTONOMY AND PARTICIPATION**

This index measures the degree of political autonomy of subnational levels of government, as well as the degree of citizen participation. It incorporates the following aspects: the existence of elections of public officials at the subnational level, as opposed to appointments by the central government; the nature of those elections; the existence of mechanisms of popular participation other than the vote; and the extent of respect for political rights (as measured by the Freedom House Index of Political Rights). A detailed explanation on the data set used and their sources is provided in Appendix D.

The index grades each country on a scale from 0 to 4, where higher values represent a higher degree of political autonomy and participation.
The aspects mentioned above enter into the index in the following way:

1) Elections:

   Officials are elected at the subnational level 1
   Officials are appointed by the central government 0

   In some cases, heads of government are appointed by the subnational legislature, which in turn is freely elected by the local or state population. In such cases, countries were assigned 0.75 points, instead of 1.

2) Type of election:

   Elections of executive officials are:
   Direct 1/4
   Indirect 0

   The electoral system for legislative bodies is:
   Plurality (first-past-the-post) 1/2
   Mixed 1/4
   Proportional representation 0

   Elections at the subnational and national levels are held:
   On different dates 1/4
   On the same date 0

   Immediate reelection:
   Executive 1/4
   Legislative 1/4
   No reelection 0

3) Existence of additional mechanisms of popular participation (such as referenda or plebiscite):

   Yes, and can be initiated by popular demand 1/2
   Yes, only initiated by the government 1/4
   Do not exist 0

4) Political rights: This element was taken from the Freedom House Survey of Political Rights, and enters into our index in multiplicative form. The Freedom House index ranges from 1 (maximum respect for political rights) to 7. We transformed this so as to assign a score of 1 to the maximum degree of political rights, and 0 to the minimum. The scores of each country in the other dimensions (which vary between 0 and 3) are multiplied by their score in the political rights dimension. The reason to introduce this variable in multiplicative form is that local elections, and electoral systems that would otherwise provide accountability, would do no good if elections were not clean and the political rights of the population not respected. Although the Freedom House survey is available only at the country level, we assume that respect for political rights at the subnational level closely matches that of the country.

Since the index just described has a maximum value of 3, we multiply it by 4/3 in order to make it consistent with the other indices described below, which vary between 0 and 4.

When countries present two levels of subnational governments (intermediate and local) the index is determined separately for each one of them, and the overall index for the country is obtained as a weighted average, where the weights are given by the relative importance of each level in total subnational expenditures.

INDEX OF DISCRETIONALITY OF INTERGOVERNMENTAL TRANSFERS

This index measures the degree of discretion of the central level of government regarding the transfer of resources to subnational level governments. The index does not intend to measure other important characteristics of the design of intergovernmental transfers, such as the existence of explicit incentives to an efficient fiscal performance, equity considerations, autonomy, vertical imbalance, etc. A detailed explanation on the data set used and their sources is provided in Appendix D.

To obtain the index of discretionality of intergovernmental transfers for each country, two steps are followed:

1. Compute an index for each one of the transfers from the central level to subnational level governments of a given country.
2. Weight the previous index of each transfer by the relative importance of such transfer in terms of the resources transferred in 1995.

The index of discretionality varies within a range from 0 to 4, where 0 represents the minimum level of discretion and 4 the maximum. To compute the index,
two fundamental issues of the transfer process are taken into account, and both are given the same weight. The final index results from the addition of the score obtained in both aspects:

1. Mechanisms to determine the amount of the transfer:
   a) Fixed amount or percentage of nondiscretionary income 0 points
   b) Percentage of income varies within a preestablished range 1 point
   c) The amount is determined in the budget 2 points

2. Mechanisms to determine the distribution of the transfer among jurisdictions:
   a) Fixed amount, preestablished percentages, objective criteria 0 points
   b) Less objective criteria 1 point
   c) Executive decision 2 points

INDEX OF BORROWING AUTONOMY

This index measures the degree of borrowing autonomy of subnational levels of government. The index of borrowing autonomy can vary between 0 and 4. Obviously, those countries where subnational governments cannot borrow have 0 autonomy. Out of the other criteria, higher weights were given to the issues of bank ownership by subnational governments and to government authorization. A detailed explanation on the data set used and their sources is provided in Appendix D. The index is built according to the following criteria:

1) Ability to borrow:
   If subnational governments cannot borrow, 2 points.

2) Authorization:
   If borrowing by subnational governments requires central government authorization for all debt, 1 point.
   In the case of local governments, if intermediate government has to authorize, 0.5 points.

3) Borrowing constraints:
   If there are numerical constraints on borrowing, such as maximum debt service/revenue ratios, up to 0.5 points, according to coverage of constraints.

4) Limits on use of debt:
   If it cannot be used for current expenditures, 0.5 points.

The value of the first part of the index (criteria 1 through 4) is equal to 2 minus the sum of the points from criteria (1) through (4). For example, if subnational governments in a country cannot borrow, the total for this part will be 2-2=0. If they require central government authorization and can only borrow for investment, the value for this part will be 2-1-0.5=.5.

Additional criteria are:

5) Subnational government banks:
   If subnational governments own banks, 1 point. If these banks have substantial importance, an additional 0.5 points.

6) Public enterprises:
   If subnational governments own important public enterprises, and these have liberal borrowing practices, 0.5 points.

To obtain the index for each country, the scores over criteria (5) and (6) are added to the first part of the index. The index is calculated both for the state and local governments. The index for each country is the weighted average of both, where the weights correspond to the relative importance of these two levels of government in total subnational expenditures.
APPENDIX B
ECONOMETRIC ESTIMATES OF DIFFERENT INSTITUTIONAL ARRANGEMENTS ON FISCAL PERFORMANCE VARIABLES

The estimates presented in this appendix are cross-section regressions for 47 countries (the 26 countries of Latin America and the Caribbean that are members of the Inter-American Development Bank, and 21 OECD countries). The dependent variables are the following fiscal performance variables: 1) size of the consolidated public sector as a percentage of GDP (using three measurements: total spending by the consolidated public sector, total spending less interest payments and social security expenditures, and this latter figure less capital expenditures); 2) total and primary fiscal surplus; 3) public debt as a percentage of GDP and as a percentage of fiscal revenues; and 4) the correlation between the cyclical component of public spending and the cyclical component of GDP, which we shall call procyclicality. The first three variables (size, surplus, and debt) are the average for 1990-95, and procyclicality is calculated over 1970-95.

We have divided the independent variables into two groups: 1) control variables, among which are the public debt at the beginning of the period (1989), degree of openness of the economy measured as exports plus imports over GDP, the percentage of the population over 65, per capita GDP, and volatility; and 2) institutional variables, including the size of the electoral district or district magnitude (i.e., the number of representatives elected per district), an index of budgetary institutions (IBI), and variables associated with the decentralization process such as degree of decentralization, an index of borrowing autonomy, degree of vertical fiscal imbalance, and an index of discretionality in intergovernmental transfers. Additional information on the data set used and their sources is provided in Appendix D.

Although the purpose of our research is focused on the effects that the institutional arrangements have on different fiscal performance variables in Latin American and Caribbean countries, OECD countries were included in the sample for two reasons: 1) to increase the number of observations for econometric purposes; and 2) to be able to compare some of the results for Latin America with more developed countries. Accordingly, for each regression based on the entire sample, another regression was performed in which the number of observations was limited to just Latin American and Caribbean countries.

In addition, in those regressions that included the size of the public sector as a dependent variable, two sets of control variables were used: one that includes the population over 65, and the other that includes per capita GDP. These two variables are not concurrently included because they are closely correlated. More specifically, the countries with a higher per capita income are also those that have a higher proportion of their population in retirement. Here it must be emphasized that when both variables are included in any of these regressions, the variable that tends to lose significance is per capita GDP, the proportion of the population over 65 remaining significant at the 1 percent level. Consequently, the set of regressions on which the analysis is based are regressions with a population over 65 as a control variable. Nonetheless, for completeness, all the regressions are duplicated with per capita GDP as a control variable.

Systematic tests were conducted on each of the institutional and control variables to see if any significant difference existed in the slope dummy among the different sets of countries. If this proved to be the case, new regressions were run to allow each coefficient (for Latin American and OECD countries) to be interpreted independently. Additional tests were then conducted on each regression to see if there was any significant difference in the intercepts between the OECD and Latin America. However, no regression was found to have any significant difference in the intercepts.

Regressions were run on each of the fiscal performance variables to quantify the effect of the control variables on the dependent variables. The size of the public sector is positively influenced by borrowing levels, degree of openness, proportion of the population over 65, and GDP per capita. For the regressions that have as a dependent variable the total fiscal surplus or the public debt levels, different control variables recommended by the literature were tested: shocks to the terms of trade, percentage of the population over 65, under 14, or in the dependency age (over 65 and under 14), and degree of

1 Other control variables used were the proportion of the population under 14, proportion of dependent population (over 65 and under 14), real GDP growth, and variation in the terms of trade. However, because these variables were not significant, they were not included.
openness. In no cases were significance levels under 10 percent found; hence they were not included. In the case of primary surplus, debt at the beginning of the period had a positive effect, which indicates that the countries with high debt levels at the beginning of the period are countries with larger primary surpluses. Finally, the procyclicality of fiscal spending is positively influenced by GDP volatility.

ELECTORAL INSTITUTIONS, BUDGETARY INSTITUTIONS AND FISCAL PERFORMANCE

Appendix Tables B.1 through B.4 summarize some of the regressions that were run to quantify the impact of electoral or budgetary institutions on the different measures of fiscal performance. Appendix Table B.1 shows that district magnitude is positively correlated with the size of the public sector. This result is robust irrespective of the variable used to quantify the size of the government, changes in the set of control variables and whether or not the sample is restricted to only Latin American and Caribbean countries.

Appendix Table B.2 shows a negative relationship between the district magnitude and the surplus, both total and primary. Additionally, it shows that budgetary institutions have a positive effect on fiscal surpluses. Although these results are robust for both samples, the effects appear to be stronger in Latin American and Caribbean countries, both in terms of the size of the coefficient and their significance. When budgetary institutions interact with electoral institutions as explanatory variables, electoral institutions in general lose their significance.

These relationships are preserved when we proceed to consider debt levels as an independent variable. Appendix Table B.3 shows the existence of a positive relationship between the size of the electoral district and debt levels. On the other hand, budgetary institutions have a negative and very significant effect on debt levels. As with the surpluses, the effect of electoral institutions on borrowing levels loses significance when it interacts with budgetary institutions. These results are robust irrespective of the sample, and they are even more significant if we limit the sample to just the Latin American and Caribbean countries.

Finally, electoral institutions have a positive effect on the degree of fiscal procyclicality, when measured as the correlation between the cyclical component of government consumption and the cyclical component of GDP growth, as may be seen in Appendix Table B.4. This outcome is robust regardless of whether the sample is restricted to only Latin American and Caribbean countries.

DECENTRALIZATION AND FISCAL PERFORMANCE

Appendix Tables B.5 and B.6 show the different relationships that decentralization and the way in which decentralization is structured have on the size of the public sector. As mentioned earlier, the degree of decentralization has a positive effect on the size of the government. This result is robust to the different measures of size, to different sets of control variables, and to whether the analysis is limited to the Latin American and Caribbean countries. For the countries of the region, the effect of decentralization on the size of the public sector is larger.

Although decentralization has a direct effect on the size of the government, the way in which it is structured also has a positive impact. Vertical imbalance and borrowing autonomy have by themselves no effect on the different measures of government size. Nonetheless, when any of these variables is multiplied by the degree of decentralization, their effect on the size of the government is important. These results are robust regardless of the measure of size being used, the set of control variables, or whether the sample includes the OECD countries.

The effect on the size of the public sector is even greater if we interact these three variables, that is, if we multiply the degree of decentralization by the borrowing autonomy and by the degree of vertical imbalance. This interaction variable has a very significant positive effect on the size of government. This effect is larger in Latin American countries than in the OECD countries, and it is robust regardless of the different measures of size of the public sector being used. The results are even stronger if, instead of using the borrowing autonomy index in the interaction variable, the index of discretionality of intergovernmental transfer is used.

Finally, if decentralization is interacted with these interaction variables, in general it loses significance. That is to say, even though decentralization has a positive impact on the size of government, the way in which it is organized has a much more significant impact.

---

2 As mentioned earlier, no significant relationship was found between any of the size measures and the index of budgetary institutions.

3 No empirically significant relationships were found between decentralization variables and fiscal surpluses, debt levels, or degree of fiscal procyclicality.
### Appendix Table B.1. Institutional Arrangements and Government Size
(Cross-section regressions, average 1990-95)

<table>
<thead>
<tr>
<th>Fiscal performance</th>
<th>Total expenditures</th>
<th>Total expenditures (Excl. Gss, Gr)</th>
<th>Total expenditures (Excl Gss, Gr, Gk)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LA + OECD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Institutional arrangements</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>District magnitude</td>
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<td>2.10 (3.13)</td>
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<td>0.12 (4.16)</td>
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<td>(T-Stat)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Debt in 1989</td>
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<td>5.83 (1.67)</td>
<td>1.92 (0.56)</td>
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<td>(T-Stat)</td>
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<td>(T-Stat)</td>
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</tr>
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<tr>
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<td>35</td>
</tr>
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<td><strong>LA</strong></td>
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<td><strong>Institutional arrangements</strong></td>
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<td>Constant</td>
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<td>0.10 (3.56)</td>
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<td>(T-Stat)</td>
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<tr>
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<td>(3.42)</td>
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<td>(T-Stat)</td>
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<td></td>
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<td>19</td>
</tr>
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<td>GDP per capita</td>
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<td>0.13</td>
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</tr>
<tr>
<td>N</td>
<td>21</td>
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</tbody>
</table>

Notes: Government size is measured by the total expenditures of the consolidated public sector relative to GDP. District magnitude is the average number of representatives elected per district and enters the regression in logs. Gss = Social Security expenditures, Gr = Interest payments and Gk = Capital expenditures; LA = Latin America; OECD = Organization for Economic Cooperation and Development; DF= Degrees of freedom; N = Sample size.
### Appendix Table B.2: Institutional Arrangements and Fiscal Surplus

(Cross-section regressions, average 1990-95)

<table>
<thead>
<tr>
<th>Fiscal performance</th>
<th>LA + OECD</th>
<th>Surplus</th>
<th>Surplus</th>
<th>Surplus</th>
<th>Primary surplus</th>
<th>Primary surplus</th>
<th>Primary surplus</th>
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<td>District magnitude</td>
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<td>-0.46</td>
<td>0.19</td>
<td>(T-Stat) -2.31</td>
<td>(T-Stat) 1.65</td>
<td>(T-Stat) 1.31</td>
</tr>
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<td>(T-Stat)</td>
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<td>0.14</td>
<td>0.07</td>
<td>0.06</td>
<td>(T-Stat) 5.35</td>
<td>(T-Stat) 2.89</td>
<td>(T-Stat) 2.39</td>
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<td>(T-Stat)</td>
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<td>(4.11)</td>
<td>(2.89)</td>
<td>(2.39)</td>
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<tr>
<td>OECD budgetary institutions</td>
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<td>0.06</td>
<td>0.06</td>
<td>(T-Stat) 3.00</td>
<td>(T-Stat) 2.89</td>
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<td>(2.89)</td>
<td>(2.39)</td>
<td>(2.39)</td>
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<td>-0.10</td>
<td>0.02</td>
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<td>(T-Stat) 5.91</td>
<td>(T-Stat) 4.12</td>
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<td>(-6.33)</td>
<td>(-5.13)</td>
<td>(2.46)</td>
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<tr>
<td>LA debt in 1989</td>
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<td>-0.34</td>
<td>0.12</td>
<td>-0.20</td>
<td>(T-Stat) -1.13</td>
<td>(T-Stat) 1.89</td>
<td>(T-Stat) 1.71</td>
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<td>(-1.13)</td>
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<td>R²</td>
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<table>
<thead>
<tr>
<th>Fiscal performance</th>
<th>Latin America</th>
<th>Surplus</th>
<th>Surplus</th>
<th>Surplus</th>
<th>Primary surplus</th>
<th>Primary surplus</th>
<th>Primary surplus</th>
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</thead>
<tbody>
<tr>
<td><strong>Institutional arrangements</strong></td>
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</tr>
<tr>
<td>District magnitude</td>
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<td>-0.61</td>
<td>-1.11</td>
<td>0.22</td>
<td>(T-Stat) -2.57</td>
<td>(T-Stat) -1.74</td>
<td>(T-Stat) -1.91</td>
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<td>(T-Stat)</td>
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<td>(-1.07)</td>
<td>(-1.53)</td>
<td>(1.68)</td>
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</tr>
<tr>
<td>LA budgetary institutions</td>
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<td>0.22</td>
<td>0.19</td>
<td>(T-Stat) 2.57</td>
<td>(T-Stat) 3.68</td>
<td>(T-Stat) 2.05</td>
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<td>(2.03)</td>
<td>(2.43)</td>
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<td>(2.83)</td>
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<td>-0.38</td>
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<td>(1.73)</td>
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<tr>
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<td>19</td>
<td>22</td>
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</tbody>
</table>

Notes: Fiscal surplus is measured by the surplus of the consolidated public sector relative to GDP. Primary surplus is total surplus minus interest payments. District magnitude is the average number of representatives elected per district and enters the regression in logs. The index of budgetary institutions was calculated based on Alesina et al. (1996) for Latin America, and drawn from Von Hagen and Harden (1995) for the OECD. LA = Latin America; OECD = Organization for Economic Cooperation and Development; DF = Degrees of freedom; N = Sample size.
## Appendix Table B.3. Institutional Arrangements and Government Debt

(Cross-section regressions, average 1990-95)

<table>
<thead>
<tr>
<th>Fiscal Performance</th>
<th>Debt/GDP</th>
<th>Debt/GDP</th>
<th>Debt/GDP</th>
<th>Debt/Revenues</th>
<th>Debt/Revenues</th>
<th>Debt/Revenues</th>
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</thead>
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<tr>
<td><strong>LA + OECD</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Institutional arrangements</strong></td>
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<td></td>
</tr>
<tr>
<td>District magnitude</td>
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<td>0.20</td>
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<td>(0.59)</td>
<td>(0.48)</td>
<td>(-0.35)</td>
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<tr>
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<tr>
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<td>-3.07</td>
<td>-3.24</td>
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Notes: Government debt is measured by the total debt of the consolidated public sector relative to GDP and as a percentage of government revenues. District magnitude is the average number of representatives elected per district and enters the regression in logs. The index of budgetary institutions was calculated based on Alesina et al. (1996) for Latin America, and from Von Hagen and Harden et al. (1995) for the OECD.

LA = Latin America; OECD = Organization for Economic Cooperation and Development; DF = Degrees of freedom; N = Sample size.

## Appendix Table B.4. Institutional Arrangements and Procyclicality

(Cross-section regressions)

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Notes: Procyclicality is measured by the correlation coefficient between the cyclical component of government consumption and the cyclical component of output for the period 1970-95. District magnitude is the average number of representatives elected per district and enters the regression in logs.

LA = Latin America; G7 = Group of Seven; DF = Degrees of freedom; N = Sample size.
### Appendix Table B.5. Decentralization and Government Size, Latin America and OECD

(Cross-section regressions, average 1990-95)

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### Table B.6. Decentralization and Government Size, Latin America and OECD

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<td>0.70</td>
<td>0.70</td>
<td>0.69</td>
<td>0.69</td>
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<td>DF</td>
<td>39</td>
<td>32</td>
<td>32</td>
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<td>N</td>
<td>43</td>
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</table>

Notes: Government size is measured by the total expenditures of the consolidated public sector relative to GDP. Regressions 5 through 8 exclude Argentina.

Dec = Decentralization; VI = Vertical fiscal imbalance; BA = Borrowing autonomy; LA = Latin America; OECD = Organization for Economic Cooperation and Development; DF= Degrees of freedom; N = Sample size.
Appendix B. Decentralization and Government Size, Latin America

<table>
<thead>
<tr>
<th>Size</th>
<th>Latin America</th>
<th>(Cross-section regressions, average 1990-95)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td><strong>Institutional variables</strong></td>
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<tr>
<td>Decentralization</td>
<td>0.45</td>
<td>0.20</td>
</tr>
<tr>
<td>(T-Stat)</td>
<td>(4.24)</td>
<td>(1.43)</td>
</tr>
<tr>
<td>Decentralization* Vertical imbalance</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>(T-Stat)</td>
<td>(3.14)</td>
<td></td>
</tr>
<tr>
<td>Decentralization* Borrowing autonomy</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>(T-Stat)</td>
<td>(3.97)</td>
<td></td>
</tr>
<tr>
<td>Dec<em>Vi</em>BA</td>
<td></td>
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<tr>
<td>(T-Stat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec<em>Vi</em>Discretionality in transfers</td>
<td>0.39</td>
<td>0.27</td>
</tr>
<tr>
<td>(T-Stat)</td>
<td>(7.44)</td>
<td>(2.79)</td>
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<tr>
<td><strong>Controls</strong></td>
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<td></td>
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<tr>
<td>Constant</td>
<td>0.14</td>
<td>-0.00</td>
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<tr>
<td>(T-Stat)</td>
<td>(2.77)</td>
<td>(-0.06)</td>
</tr>
<tr>
<td>Debt in 1989</td>
<td>1.63</td>
<td>1.75</td>
</tr>
<tr>
<td>(T-Stat)</td>
<td>(2.13)</td>
<td>(3.85)</td>
</tr>
<tr>
<td>Openness</td>
<td>0.11</td>
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<tr>
<td>(T-Stat)</td>
<td>(2.79)</td>
<td>(3.23)</td>
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<tr>
<td>Population &gt; 65 Years</td>
<td>1.24</td>
<td>0.89</td>
</tr>
<tr>
<td>(T-Stat)</td>
<td>(1.54)</td>
<td>(1.87)</td>
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<tr>
<td><strong>R2</strong></td>
<td>0.36</td>
<td>0.67</td>
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<td><strong>DF</strong></td>
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<td><strong>N</strong></td>
<td>23</td>
<td>19</td>
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</tbody>
</table>

Notes: Government size is measured by the total expenditures of the consolidated public sector relative to GDP. Regressions 5 through 8 exclude Argentina. Dec = Decentralization; VI = Vertical fiscal imbalance; BA = Borrowing autonomy; LA = Latin America; OECD = Organization for Economic Cooperation and Development; DF= Degrees of freedom; N = Sample size.
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Interurban
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Public
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Primary and
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Waste
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Appendix Table C.1. Expenditure Assignments of National, Intermediate and Local Levels of Government, 1996
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APPENDIX C: DECENTRALIZATION ARRANGEMENTS


## Appendix Table C.1: Expenditure Assignments of National, Intermediate and Local Levels of Government, 1996 (cont.)

| Activities | Function          | ARG | BRA | BOL | CHL | COL | CRI | DOM | ECU | GMB | HND | MEX | PAN | PER | PRY | SLV | SUR | TTO | URY | VEN |
|------------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Electric power supply | Amount | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | L   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Structure         | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Execution         | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Supervision       | N    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
| Oil and gas pipelines | Amount | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Structure         | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Execution         | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Supervision       | N    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
| Irrigation | Amount | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Structure         | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Execution         | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Supervision       | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
| Telecommunications | Amount | N    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Structure         | N    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Execution         | N    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Supervision       | N    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
| Ports and navigable waterways | Amount | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Structure         | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Execution         | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Supervision       | I    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
| Airports  | Amount | NJ   | N   | L   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Structure         | NJ   | N   | L   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Execution         | NJ   | N   | L   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Supervision       | N    | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
| Railroads | Amount | NJ   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Structure         | NJ   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Execution         | NJ   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
|           | Supervision       | NJ   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   | N   |
| Urban transport | Amount | I,L  | N   | L   | N   | N   | N   | N   | N   | N   | N   | L   | I,L  | N   | N   | N   | I   | N   | N   | I   | L   |
|           | Structure         | I,L  | N   | L   | N   | N   | N   | N   | N   | N   | N   | N   | L   | I,L  | N   | N   | N   | I   | N   | N   | I   | L   |
|           | Execution         | I,L  | N   | L   | N   | N   | N   | N   | N   | N   | N   | N   | L   | I,L  | N   | N   | N   | I   | N   | N   | I   | L   |
|           | Supervision       | I,L  | N   | L   | N   | N   | N   | N   | N   | N   | N   | N   | L   | I,L  | N   | N   | N   | I   | N   | N   | I   | L   |

**Legend:**
- Amount: Who decides the amount spent?
- Structure: Who defines the structure of expenditure?
- Execution: Who executes the expenditure?
- Supervision: Who supervises and sets standards?

The order reflects the relative importance of each level.

N = National level
I = Intermediate level
L = Local level
### Appendix Table C.2. Tax Assignment to Subnational Governments, 1996

| Property | Level | Function | ARG | BOL | BRA | COL | CHI | CHL | ECU | GIM | HND | MEX | NIC | PAN | PRY | PER | URY | VEN |
|----------|------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|          |      |          | L   | L   | NL  | L   | L   | NL  | L   | NL  | NL  | L   | NL  | L   | L   | L   | L   | L   | L   |
| Transfer property | Level | Function | L   | L   | NL  | L   | L   | NL  | L   | NL  | NL  | L   | NL  | L   | NL  | L   | L   | L   | L   |
| Industry and trade | Level | Function | N,L | NL  | adm | L   | L   | L   | L   | L   | L   | L   | adm | L   | adm | L   | adm | L   | adm | L   |
| Vehicles | Level | Function | L,L | L   | adm | L   | L   | L   | L   | L   | L   | L   | adm | L   | adm | L   | adm | L   | adm | L   |
| Stamp | Level | Function | N,L | I   | adm | N,L | adm | L   | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm |
| Natural resources | Level | Function | N,I | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm |
| Sales/VAT/Turnover | Level | Function | N,I | N,I | adm | N,I | adm | N,I | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm |
| Income | Level | Function | N,I | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm |
| Fuel | Level | Function | L   | L   | adm | N,I | adm | N,I | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm |
| Payroll | Level | Function | N,I | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm |
| Pollution | Level | Function | L   | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm | adm |

1. In 1985, only local level was involved.
2. In 1985, both national and local level were responsible for all functions.
3. In 1985, local level was only responsible for administration.
4. In 1985, administration was shared with national level.
5. In 1985, only intermediate level was involved.
6. In 1985, responsibilities were shared with the national level.
7. In 1985, responsibilities were shared with the national level.
8. In 1985, local level was only responsible for administration.
9. In 1985, responsibilities were shared with the national level.
10. In 1985, national and intermediate levels were responsible for administration.
### Appendix Table C.3. Alternative Forms of Intergovernmental Transfer Programs

<table>
<thead>
<tr>
<th>Country</th>
<th>Method of determining the total divisible pool</th>
<th>Specified share of national or state tax</th>
<th>Fixed amount</th>
<th>Ad hoc decision</th>
<th>Reimbursement of approved expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Origin of collection of the tax</td>
<td>89</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Formula</td>
<td>6</td>
<td>56</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Chile</td>
<td>Origin of collection of the tax</td>
<td>17</td>
<td>17</td>
<td></td>
<td>83</td>
</tr>
<tr>
<td>Colombia</td>
<td>Formula</td>
<td>85</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>Origin of collection of the tax</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecuador</td>
<td>Formula</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guatemala</td>
<td>Origin of collection of the tax</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honduras</td>
<td>Formula</td>
<td>15</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>Origin of collection of the tax</td>
<td>36</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panama</td>
<td>Formula</td>
<td></td>
<td>92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>Formula</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Suriname</td>
<td>Origin of collection of the tax</td>
<td></td>
<td></td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>Trinidad &amp; Tobago</td>
<td>Origin of collection of the tax</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>Origin of collection of the tax</td>
<td></td>
<td>97</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Country</td>
<td>Name of transfer</td>
<td>How is the amount determined?</td>
<td>Amount 1995</td>
<td>How is it allocated?</td>
<td>Allocation</td>
</tr>
<tr>
<td>----------------</td>
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<td>------------</td>
</tr>
<tr>
<td>ARGENTINA</td>
<td>Coparticipation in federal taxes</td>
<td>Automatic. Minimum of $740 million, 56.66% of the following: 80% VAT, 64% profit tax, 50% asset tax, 100% domestic taxes and other taxes</td>
<td>8,092,1 million pesos</td>
<td>Automatic. Shares set in law 23,548.</td>
<td>Not allocated</td>
</tr>
<tr>
<td></td>
<td>Transfer of profit tax</td>
<td>Automatic. 1/4% of income tax</td>
<td>671.3 million pesos</td>
<td>Automatic. 10% for Buenos Aires province (with a cap of 650 million pesos). 4% for all other provinces according to a measure of unmet basic needs</td>
<td>Allocated for social infrastructure works.</td>
</tr>
<tr>
<td></td>
<td>Transfer to Education Fund</td>
<td>Automatic. 50% of asset tax</td>
<td>48.1 million pesos</td>
<td>Automatic. 65% to the provinces, 35% for the federal government. Resources allocated according to coefficients calculated by the Ministry of Education.</td>
<td>Allocated for education.</td>
</tr>
<tr>
<td></td>
<td>Social security</td>
<td>Automatic. 1.1% of VAT + 10% of property tax</td>
<td>362.7 million pesos</td>
<td>Automatic. Transferred to the provinces and municipalities, according to the number of beneficiaries in each province as of 31/05/91.</td>
<td>Allocated for social security system</td>
</tr>
<tr>
<td></td>
<td>FONAVI</td>
<td>Automatic. Guaranteed for 900 million pesos 42% of 79% of fuel tax.</td>
<td>736.2 million pesos</td>
<td>Automatic. Allotted between provinces and Municipality of Buenos Aires according to coefficients established in the 1992 Fiscal Pact.</td>
<td>Allocated</td>
</tr>
<tr>
<td></td>
<td>Fuel tax</td>
<td>Automatic. 29% of 79% of fuel tax</td>
<td>464.8 million pesos</td>
<td>Automatic. 60% to provincial road authorities, according to percentages set by Consejo Vial Federal. 30% infrastructure works, in accordance with law 23,548. 10% to the Fondo de Desarrollo Electrico del Interior according to percentages set by Consejo Federal de Energia Electrica.</td>
<td>Allocated for roads and electricity</td>
</tr>
<tr>
<td></td>
<td>Compensation Fund for Provincial Imbalances</td>
<td>Automatic. 45.6 million pesos monthly.</td>
<td>543.6 million pesos</td>
<td>Automatic. Allotted among provinces according to predetermined amounts.</td>
<td>Not allocated</td>
</tr>
<tr>
<td></td>
<td>Contributions from the Treasury</td>
<td>Automatic. 3% of the Fondos Coparticipables +2% of profit tax</td>
<td>597.0 million pesos</td>
<td>Discritional.</td>
<td>Not allocated</td>
</tr>
<tr>
<td>BAHAMAS</td>
<td>Participation of national revenues</td>
<td>Semi-automatic. Up to 50% of the property tax, up to 50% of the motor vehicle tax, and up to 100% of airport tax, hotel, commercial and ship licences.</td>
<td>Automatic. Allotted among districts according to the geographic origin of the collection. Subject to executive and legislative approval.</td>
<td>Not allocated</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Direct subsidy</td>
<td>Discritional.</td>
<td>Discational. Subject to executive and legislative approval.</td>
<td>Not allocated</td>
<td>No</td>
</tr>
<tr>
<td>Country</td>
<td>Budget transfers to public sector</td>
<td>Tax coparticipation</td>
<td>Transfer of special hydrocarbons tax</td>
<td>State Participation Fund (FPE)</td>
<td>Municipality Participation Fund (FPM)</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>BOLIVIA</td>
<td>Discretional. Treasury budget line item</td>
<td>20% of revenue from main taxes</td>
<td>25% of revenue from the special tax on hydrocarbons and derivatives.</td>
<td>21.5% of net revenue from income tax and industrialized products tax.</td>
<td>22.5% of net revenue from income tax and industrialized products tax.</td>
</tr>
<tr>
<td></td>
<td>530.54 million bolivianos</td>
<td>686.4 million bolivianos</td>
<td>368.6 million bolivianos (in 1996)</td>
<td>$3,942.2 million (in 1998, US$)</td>
<td>$4,244.8 million (in 1998, US$)</td>
</tr>
<tr>
<td></td>
<td>Discretion. Transfers allotted to municipalities, prefectures and public enterprises.</td>
<td>Automatic. Allotted among the municipalities according to population.</td>
<td>Automatic. Allotted among prefectures, 50% according to population and 50% according to origin of production.</td>
<td>Automatic. Distributed among states according to legal requirements calculated using the population and the inverse of the per capita state income. The corresponding requirements are limited to 1.9% for the Southern-Southeastern states and to 1% for the case of São Paulo.</td>
<td>Automatic. 10% for capital municipalities, according to population and the inverse of the per capita income, 4% for municipalities bigger than 156,000 inhabitants in 1980, 86% among states according to the 1989 transfer schedule, allotted according to population and the inverse of the per capita income.</td>
</tr>
<tr>
<td></td>
<td>Not allocated.</td>
<td>Not allocated.</td>
<td>Not allocated.</td>
<td>25% to education. Treasury can subtract debt currently owed by states.</td>
<td>25% to education. Treasury can subtract debt currently owed by states.</td>
</tr>
<tr>
<td>Country</td>
<td>Name of transfer</td>
<td>How is the amount determined?</td>
<td>Amount 1995</td>
<td>How is it allocated?</td>
<td>Allocation</td>
</tr>
<tr>
<td>--------------</td>
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<td>-------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>CHILE</td>
<td>Transfer of gold tax</td>
<td>30% of the gold tax</td>
<td>85.1 million (in 1991, US$)</td>
<td>Automatic. Transfer is proportional to the geographic origin of the gold.</td>
<td>25% to education</td>
</tr>
<tr>
<td></td>
<td>Transfer of rural estate tax</td>
<td>50% of rural property tax</td>
<td></td>
<td>Automatic. Transfer to municipalities is proportional to collection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Education subsidy</td>
<td>Automatic, Fixed amount per student.</td>
<td>442,993 million pesos</td>
<td>Automatic. Transfer to municipalities is proportional to number of students and education level.</td>
<td>Education.</td>
</tr>
<tr>
<td></td>
<td>Transfer to health sector</td>
<td>Automatic. The Department of Education determines the cost of each service and this is included in the budget as such.</td>
<td>48,096 million pesos</td>
<td>Automatic. Transfer to municipalities according to the number of legal benefits. Paid according to monthly invoicing.</td>
<td>Health.</td>
</tr>
<tr>
<td></td>
<td>National Fund for Regional Development</td>
<td>Discretionary, Budget line item</td>
<td>61,082 million pesos</td>
<td>Semi-automatic. Regional transfers according to socioeconomic indicators and territorial condition.</td>
<td>Not allocated.</td>
</tr>
<tr>
<td></td>
<td>Provisions for rural education and electrification</td>
<td>Discretionary, Budget line item</td>
<td>12,000 million pesos</td>
<td>Automatic. Transfer to municipalities according to number of beneficiaries.</td>
<td>Education, rural electricity.</td>
</tr>
<tr>
<td></td>
<td>Neighborhood improvement program</td>
<td>Discretionary, Budget line item</td>
<td>23,584 million pesos</td>
<td>Automatic. Regional distribution, which depends on projects proposed by the municipalities.</td>
<td>Investment in water and sewage.</td>
</tr>
<tr>
<td></td>
<td>Urban improvement and community development program</td>
<td>Discretionary, Budget line item</td>
<td>8,893 million pesos</td>
<td>Automatic. Regional distribution. 80% proportional to unemployed and number of municipalities. 20% for emergencies. Regions distribute resources according to projects proposed by each municipality.</td>
<td>Not allocated.</td>
</tr>
<tr>
<td>COLOMBIA</td>
<td>Situado Fiscal (fiscal earmarking)</td>
<td>A minimum share of current revenues set at 24.5%</td>
<td>1,746,552 million pesos</td>
<td>Automatic. 15% equally divided between departments and districts. The other 85% is split in two steps: first, it is distributed among departments and districts until the inflation-adjusted 1993 amount is reached. The rest is split according to the beneficiary population and the fiscal effort. Then it is adjusted according to the per capita income of each department relative to the national average.</td>
<td>60% education, 20% health, 20% education or health (as determined by each department).</td>
</tr>
<tr>
<td><strong>Participation of Treasury revenues</strong></td>
<td>Automatic. A share of current revenues, which will annually be increased from 14% in 1993 to 22% in the year 2001.</td>
<td>1,206,696 million pesos</td>
<td>Automatic. Among municipalities and districts; 60% according to population with unmet basic needs (NBI) and relative poverty, 22% according to population, 12% according to fiscal and administrative efficiency, 6% according to progress at NBI.</td>
<td>30% education, 25% health, 20% water and sewage, 5% recreation and culture, 20% discretional.</td>
<td>No</td>
</tr>
<tr>
<td><strong>Giffinancing</strong></td>
<td>Discretional.</td>
<td>523,128 million pesos</td>
<td>30% for emergencies, 70% among departments and municipalities. This 70% is allotted as: 40% according to NBI, 60% by sectors according to specific sector indicators (health, student enrollment, rural index, water and sewage coverage deficit). Municipalities are beneficiaries.</td>
<td>Four sector funds: social, urban infrastructure, road infrastructure, rural development.</td>
<td>Yes. The percentage changes according to the department/municipality category and the type of project. Range between 0-85%.</td>
</tr>
<tr>
<td><strong>COSTA RICA</strong></td>
<td>Transfer to banana producing municipalities</td>
<td>Automatic. $1.50 per banana box exported</td>
<td>292,000 colones</td>
<td>Automatic.</td>
<td>292,000 colones</td>
</tr>
<tr>
<td><strong>DOMINICAN REPUBLIC</strong></td>
<td>Cofinancing Discretional.</td>
<td>523,128 million pesos</td>
<td>30% for emergencies, 70% among departments and municipalities. This 70% is allotted as: 40% according to NBI, 60% by sectors according to specific sector indicators (health, student enrollment, rural index, water and sewage coverage deficit). Municipalities are beneficiaries.</td>
<td>Four sector funds: social, urban infrastructure, road infrastructure, rural development.</td>
<td>Yes. The percentage changes according to the department/municipality category and the type of project. Range between 0-85%.</td>
</tr>
<tr>
<td><strong>EQUADOR</strong></td>
<td>Transfer to Fondo de Desarrollo Secudal, FODESEC</td>
<td>2% of budget revenues. Three billion sucres from oil exports at 1991 prices, adjusted for CPI. All FONAPAR (Fondo Nacional de Participaciones) allowances. Future allowances credited on budget.</td>
<td>510 billion sucres</td>
<td>Semi-automatic. 2% for province capital municipalities; 19.6% for provincial councils and the Instituto Nacional Galápagos; 60% for population, 20% for area, and 20% for NBI; 73.5% for municipalities; 60% distributed by the Finance Ministry (60% for population, 30% for NBI, and 10% according to administrative efficiency) and 40% is transferred into the Investment Fund at the State Bank. The remaining 4.9% goes to the Emergency Reserve. Transfer to provincial councils: 70% discretional, 30% investment. Municipal transfer: not allocated.</td>
<td>Close to 5% is transferred according to municipal administrative efficiency.</td>
</tr>
<tr>
<td>Country</td>
<td>Name of transfer</td>
<td>How is the amount determined?</td>
<td>Amount 1995</td>
<td>How is it allocated?</td>
<td>Allocation</td>
</tr>
<tr>
<td>---------------</td>
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<td>---------------------------</td>
</tr>
<tr>
<td>EL SALVADOR</td>
<td>Transfer to Fondo de Desarrollo Provincial, FONDERPO</td>
<td>Automatic, 2% of current</td>
<td>50.4 billion</td>
<td>Automatic: 50% transferred to state banks as capital (75% in equal parts and 25% according to population), the remaining 50% is transferred to the provincial councils (75% in equal parts, 25% according to population).</td>
<td>Allocated. Only for development works.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>revenues in the budget.</td>
<td>sucre</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contribution to Fondo Municipal</td>
<td>As established by the law</td>
<td>25 million</td>
<td>Automatic: 5% for administrative expenses and capital formation. 95% proportional to the inverse of the municipality's population.</td>
<td>Not allocated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>that created the fund.</td>
<td>colon</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contribution to Provincial councils</td>
<td>Discretionary.</td>
<td>35 million</td>
<td>At the discretion of the executive.</td>
<td>Not allocated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>colones</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GUATEMALA</td>
<td>Constitutional transfer to municipalities</td>
<td>Automatic, 10% of budget</td>
<td>464.5 million</td>
<td>Automatic: 25% proportional to population, 25% in equal parts among municipalities, 25% proportional to the per capita income of each municipality, 15% proportional to the number of villages, 10% proportional to the inverse of the per capita income of each municipality.</td>
<td>90% for education, health, infrastructure and public services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>current revenues.</td>
<td>quetzales</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer of VAT to municipalities</td>
<td>% of VAT.</td>
<td>242.3 million</td>
<td>Automatic: 25% proportional to population, 25% shared among the municipalities, 25% proportional to the per capita income of each municipality, 15% proportional to the number of communities, 10% inversely proportional to the per capita income of each municipality.</td>
<td>Education, health, infrastructure and public services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>quetzales</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GUYANA</td>
<td>Regional transfer</td>
<td>Discretionary.</td>
<td></td>
<td></td>
<td>Not allocated.</td>
</tr>
<tr>
<td>HONDURAS</td>
<td>Transfer to municipalities</td>
<td>5% of central government</td>
<td>81.5 million</td>
<td>Automatic: 20% in equal parts among all municipalities, 80% proportional to population.</td>
<td>Allocated. 10% administrative expenditures and 90% investment expenditures.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>budget tax revenues.</td>
<td>lempiras</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer to port municipalities</td>
<td>4% of the Port Authority and</td>
<td>27.5 million</td>
<td>Automatic: Distributed according to the origin of the collection.</td>
<td>Not allocated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customs Authority annual</td>
<td>lempiras</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other transfers to municipalities</td>
<td>Discretionary.</td>
<td>71.9 million</td>
<td></td>
<td>Not allocated.</td>
</tr>
<tr>
<td>Country</td>
<td>Program Name</td>
<td>Funding Type</td>
<td>Value (in million pesos)</td>
<td>Distribution Method</td>
<td>Allocated</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------------------</td>
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</tr>
<tr>
<td>MEXICO</td>
<td>Fondo General de Participaciones</td>
<td>Automatic</td>
<td>23,258.6 million 1993</td>
<td>Distributed among states: 45.17% according to population, 45.17% proportional to the previous year federal tax revenue, 9.66% inversely related to the previous two.</td>
<td>Not allocated</td>
</tr>
<tr>
<td></td>
<td>Fondo General de Participaciones</td>
<td>Automatic</td>
<td>5,634.7 million 1993</td>
<td>Discritional. Distributed among the municipalities by states according to own criteria (not uniform).</td>
<td>Not allocated</td>
</tr>
<tr>
<td></td>
<td>Coordinación de Derechos (Entitlement coordination)</td>
<td>Automatic</td>
<td>1,461.1 million 1993</td>
<td>Automatic. Distributed among those states that coordinate with the federation, service rates collected according to the same criteria of the previous transfer.</td>
<td>Not allocated</td>
</tr>
<tr>
<td></td>
<td>Special tax bases, contingency reserve and vehicle use</td>
<td>Automatic</td>
<td>2,238.7 million 1993</td>
<td>Automatic. Distributed among states according to the same previous formula.</td>
<td>Not allocated</td>
</tr>
<tr>
<td></td>
<td>Fondo de Fomento Municipal y de Reordenamiento Urbano</td>
<td>Automatic</td>
<td>1,461.1 million 1993</td>
<td>Automatic. Distributed among municipalities according to real estate tax collection and municipal water fees.</td>
<td>Not allocated</td>
</tr>
<tr>
<td></td>
<td>CONACAL</td>
<td>Discretional</td>
<td>6,500 million pesos 1997</td>
<td>Discritional. Joint evaluation of state governments and Communication, Transportation and Social Development Departments</td>
<td>Allocated for highways and rural roads</td>
</tr>
<tr>
<td>NICARAGUA</td>
<td>Health and education</td>
<td>Discretional</td>
<td>22,980.5 million 1997</td>
<td>Discritional. Joint evaluation by Health, Education and Finance Departments</td>
<td>Allocated for education, health.</td>
</tr>
<tr>
<td></td>
<td>Municipality law</td>
<td></td>
<td>5% of tax revenues</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contribution to municipalities</td>
<td>Discretional</td>
<td>2,522,0 CS thousands</td>
<td>Discritional. Distribution determined by the Instituto Nicaragüense de Fomento Municipal (INIFOM).</td>
<td>Allocated for payroll</td>
</tr>
<tr>
<td></td>
<td>Decentralizing transfer to municipalities</td>
<td>Automatic</td>
<td>34,813.0 CS thousands</td>
<td>Automatic. According to number of students by education level.</td>
<td>Allocated for education</td>
</tr>
</tbody>
</table>
Appendix Table C.4.  (cont.)

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of transfer</th>
<th>How is the amount determined?</th>
<th>Amount 1995</th>
<th>How is it allocated?</th>
<th>Allocation</th>
<th>Cofinancing?</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panama</td>
<td>Recurrent transfer to poor municipalities</td>
<td>Discretionary (subsidy to municipalities that cannot cover basic expenses)</td>
<td>$1.1 million</td>
<td>Discretionary: determined by the Ministries of Government and Justice</td>
<td>No specific allocation (for operational expenses)</td>
<td>No</td>
<td>The Ministry of Planning and Economic Policy assigns 750,000 balboas for project design.</td>
</tr>
<tr>
<td>Panama</td>
<td>Capital transfer for local investment</td>
<td>Automatic. Set allocations by municipality, district, province or community.</td>
<td>$3.3 million</td>
<td>Each province is allowed 100,000 balboas, each district, 50,000, each district 25,000, and each community 10,000.</td>
<td>No specific allocation (social infrastructure, agriculture, industry)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td>Coparticipation of national tax revenues</td>
<td>Automatic. 15% of VAT and 30% of gambling revenues</td>
<td>Automatic. Departments receive 15% of what is collected within their territory</td>
<td>Health, education and public works</td>
<td>No</td>
<td>Before 1994 the distribution of these resources was discretionary.</td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td>Coparticipation of local taxes</td>
<td>Automatic. 15% of the real estate tax collected at the municipal level.</td>
<td>Automatic at the municipal level. Distributed among poor municipalities according to a formula</td>
<td>Not allocated</td>
<td>No</td>
<td>Transfer between municipalities.</td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td>Coparticipation of local taxes</td>
<td>Automatic. 15% of real estate tax collected at the municipal level.</td>
<td>Automatic. At the department level, resources go to the department the municipality belongs to.</td>
<td>Not allocated</td>
<td>No</td>
<td>Transfer from the municipal to the department level.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfers of Treasury revenues</td>
<td>Discretionary. Budget line item</td>
<td>Discretionary. At the department level, according to the projects of each governorship.</td>
<td>Not allocated</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>Programa Social del Vaso de Leche</td>
<td>Discretionary. Budget line item</td>
<td>229.8 million soles</td>
<td>Automatic. To the municipalities according to a poverty map.</td>
<td>Allocated for children 0–6 years old and for expecting and breastfeeding women.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>Regional transfers</td>
<td>Discretionary. Budget line item</td>
<td>2,936 million soles</td>
<td>Discretionary. Transfers to the region based on need. Congress must approve proposal by the executive.</td>
<td>Not allocated</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>Compensation for tax repeal</td>
<td>Discretionary. Budget line item</td>
<td>13.7 million soles</td>
<td>Automatic. To three municipalities according to collection before repeal of the tax</td>
<td>Not allocated</td>
<td>No</td>
<td>For investment expenses.</td>
</tr>
<tr>
<td>Country</td>
<td>Transfer to local governments</td>
<td>Automatic, Discretionary.</td>
<td>1.4 million</td>
<td>Discretionary.</td>
<td>Allocated for relatives of terrorism casualties</td>
<td>No</td>
<td></td>
</tr>
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<tr>
<td>Surname</td>
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<td></td>
</tr>
<tr>
<td>SURINAME</td>
<td>Transfer to local governments</td>
<td>Automatic; 40% of income tax, 30% of payroll tax, 20% of customs duties, 15% of other taxes and 15% of nontax revenue.</td>
<td>40.000 million guilders</td>
<td>Discretionary.</td>
<td>Not allocated.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>TRINIDAD AND TOBAGO</td>
<td>Transfer to local governments</td>
<td>Discretionary.</td>
<td>564.8 million TT$</td>
<td>Discretionary.</td>
<td>Not allocated.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>URUGUAY</td>
<td>IMESI: fuel and tobacco</td>
<td>Automatic. To departments based on coefficients calculated from the 1972 population and area.</td>
<td>5% of the specified tax collection.</td>
<td>Partial allocation.</td>
<td>To cover debt and the remaining is discretionary.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMESI: gas</td>
<td>Automatic. To departments based on the share in the sales tax collection from livestock in the previous year.</td>
<td>6% of the specified tax collection.</td>
<td>Not allocated.</td>
<td>No</td>
<td>Created January 1996. Incentives toward sales tax collection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Distribution of state-owned casino profits</td>
<td>Automatic. To the departments according to casino locations.</td>
<td>40% of state casino net profits.</td>
<td>Allocated for public works.</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other public transfers</td>
<td>Discretionary. Determined by the executive</td>
<td>Discretionary.</td>
<td>Allocated for public works.</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial support to employer social security contribution</td>
<td>According to employer contribution accrued during the first quarter of 1995, updated by subsequent wage increases</td>
<td>According to the accrued employer contribution as of the 1st quarter of 1995. Updated by wage increases</td>
<td>Allocated for the Banco de Previsión Social</td>
<td>No</td>
<td>The distribution criterion is effective 1996.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other transfers of national government</td>
<td>Discretionary. According to departmental government works that are being financed and managed by the central government.</td>
<td>Discretionary.</td>
<td>Allocated for specific works (transportation, tourism, recreation, etc.).</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Name of transfer</td>
<td>How is the amount determined?</td>
<td>Amount 1995</td>
<td>How is it allocated?</td>
<td>Allocation</td>
<td>Cofinancing?</td>
<td>Notes</td>
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</tr>
<tr>
<td>VENEZUELA</td>
<td>Situado Constitutional (constitutional earmarking)</td>
<td>20% of current revenues.</td>
<td>893,019 million Bs</td>
<td>Automatic: 30% in equal parts among states, 70% according to the population of each state, 20% of resources in each state must be transferred to the municipalities. This percentage has been increasing 1% annually starting at 10% in 1990 up to 20% by the year 2000.</td>
<td>Not allocated specifically</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfers associated with the decentralization of responsibilities</td>
<td>Same share of current revenues incurred as an expense by the central government at the time the service was transferred.</td>
<td>56,600 million Bs</td>
<td>Automatic: Transfers to states follow the same distribution schedule it had before the transfer of responsibilities</td>
<td>Allocated: State under the obligation to use resources to provide the corresponding service.</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ley de Política Habitacional</td>
<td>Discretional. The global budget (at the national level) must be 5% of the current revenues less the “situado” and other legal obligations</td>
<td>25,157 million Bs</td>
<td>Discretional: Distribution between states and municipalities is carried out by the executive, with suggestions from the National Housing Council.</td>
<td>Allocated for housing plans</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public education promotion program</td>
<td>Discretional.</td>
<td>24,741 million Bs en 1996</td>
<td>Discretional: Distribution between states and municipalities is carried out by the Ministry of Education according to the projects and individual negotiations.</td>
<td>Allocated for education.</td>
<td>Yes. The percentage changes according to socio-economic characteristics, type of project and the administrative structure in charge of the project. Range of 25%-40%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coparticipation of states and municipalities in sales tax revenues (I.G.) through FIDES (intergovernmental decentralization fund)</td>
<td>15-20% from luxury goods tax and wholesale tax. Congress sets the share to transfer in the budget.</td>
<td>10,528 million Bs</td>
<td>Automatic: 60% to states and 40% to municipalities. These resources are then distributed according to the following: 45% according to population, 10% according to territory, 45% according to the unmet basic needs index calculated by FIDES. Transfer is done based on approved projects.</td>
<td>No specific allocation.</td>
<td>Yes. States under the obligation to provide their own funds for each project. No share has been established. Transfers are credited to FIDES. The potential availability of funds is determined according to formula, but resources are delivered as projects are approved. Transfers in 1996 amounted to Bs 200,000 million.</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Are SNGs allowed to borrow?</td>
<td>Borrowing must be authorized</td>
<td>Are there any numerical constraints on debt?</td>
<td>Can SNGs use tax sharing as guarantees?</td>
<td>Do SNGs own banks?</td>
<td>Borrowing practices of SNG public enterprises</td>
<td>Notes</td>
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<tr>
<td>Argentina</td>
<td>Yes</td>
<td>By state legislature, if denominated in foreign currency, by central govt.</td>
<td>In most provinces, debt service is generally limited to 20/25% of current revenues. Some provinces impose constraints on municipalities.</td>
<td>Yes</td>
<td>Yes (they play a significant role in financing SNGs)</td>
<td>Established in by-law of each firm.</td>
<td></td>
</tr>
<tr>
<td>Bahamas</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Yes</td>
<td>By central government and local legislation.</td>
<td>The amount is limited to that approved with the budget of each state and municipality.</td>
<td>Limited to specific projects (only when contracted to a multilateral organization)</td>
<td>Yes</td>
<td>Yes (they play a significant role in financing the SNGs)</td>
<td>Since 1978 such practices have been widely discouraged by central bank’s regulations.</td>
</tr>
<tr>
<td>Brazil</td>
<td>Yes</td>
<td>By national and state legislature.</td>
<td>The amount is limited to that approved with the budget of each state and municipality.</td>
<td>Limited to specific projects (only when contracted to a multilateral organization)</td>
<td>Yes</td>
<td>Yes (they play a significant role in financing the SNGs)</td>
<td>Since 1978 such practices have been widely discouraged by central bank’s regulations.</td>
</tr>
<tr>
<td>Chile</td>
<td>No. SNGs can only contract debt after the national congress passes a special law approving operations of each entity.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Colombia</td>
<td>Yes</td>
<td>By department legislature (intermediate level).</td>
<td>Until 1996 debt services were limited to 30% of current revenues. A new law changes the limit to a debt interest/operational savings ratio of less than 40% or a debt/current revenues ratio of less than 80%.</td>
<td>For investment.</td>
<td>Yes</td>
<td>Limited to that allowed by rules dictated by the central government.</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Are SNGs allowed to borrow?</td>
<td>Borrowing must be authorized for intermediate governments</td>
<td>Borrowing must be authorized for local governments</td>
<td>Are there numerical constraints on debt?</td>
<td>Constraints on use of debt?</td>
<td>Can SNGs use tax sharing as own guarantees?</td>
<td>Do SNGs own banks?</td>
</tr>
<tr>
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</tr>
<tr>
<td>Costa Rica</td>
<td>Yes</td>
<td>By local legislature and the Office of the Controller General.</td>
<td>By national and local legislatures.</td>
<td>Debts service is limited to 10% of municipal current revenues when contracted for financing of projects that will not generate sufficient funds for repayment.</td>
<td>For investment.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Dom. Rep.</td>
<td>Yes</td>
<td>By national government and local legislature.</td>
<td>By national government and local legislature.</td>
<td>No</td>
<td>There are no limits regarding use of public funds.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Yes</td>
<td>No authorization is required.</td>
<td>No authorization is required.</td>
<td>When used in projects that do not generate sufficient resources for repayment, debt service is limited to 20% of current municipal revenues.</td>
<td>For investments in infrastructure when contracted for more than one year.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>El Salvador</td>
<td>Yes</td>
<td>No formal authorization is required.</td>
<td>By the national government and the national legislature (when a guarantee is applied for).</td>
<td>No</td>
<td>External is limited to investment. Internal can be used for infrastructure and current expenditure.</td>
<td>No</td>
<td>No</td>
</tr>
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</tr>
<tr>
<td>Guatemala</td>
<td>Yes</td>
<td>By national legislature.</td>
<td>By national legislature.</td>
<td>No</td>
<td>No</td>
<td>There are no limits regarding use of public funds.</td>
<td>No</td>
</tr>
<tr>
<td>Honduras</td>
<td>Yes</td>
<td>By the national government. Favorable opinion issued by the central bank is required</td>
<td>By the national government.</td>
<td>No</td>
<td>No</td>
<td>There are no formally set limits, although in practice the debt is used for investment in projects that generate enough resources for repayment.</td>
<td>No</td>
</tr>
<tr>
<td>Mexico</td>
<td>Yes</td>
<td>By state legislature. States are not allowed to contract external debts.</td>
<td>By state and municipal legislatures. Municipalities are not allowed to contract external debts.</td>
<td>For investment.</td>
<td>For investment.</td>
<td>Yes, in the case of municipalities</td>
<td>No</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Yes</td>
<td>By local legislature. Need to be guaranteed by the national government.</td>
<td>Need to be guaranteed by the national government.</td>
<td>For investment.</td>
<td>For investment.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Panama</td>
<td>Yes</td>
<td>Are not allowed to borrow.</td>
<td>Are not allowed to borrow.</td>
<td>No</td>
<td>NA</td>
<td>For investment.</td>
<td>No</td>
</tr>
<tr>
<td>Peru</td>
<td>Yes</td>
<td>No authorization is required.</td>
<td>By the national government, since its guarantee is required. No authorization is required unless the guarantee of the national government is sought.</td>
<td>When a guarantee by the national government is sought there are limits to debts services established annually by law. When debt is backed by own revenues the only restricted use is current expenditures. When there is guarantee by the national government it can only be used for investments in infrastructure and public services.</td>
<td>When debt is backed by own revenues the only restricted use is current expenditures.</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
### Appendix Table C.5. Constraints on Subnational Borrowing (cont.)

<table>
<thead>
<tr>
<th>Country</th>
<th>Are SNGs allowed to borrow?</th>
<th>Borrowing must be authorized for intermediate governments</th>
<th>Borroing must be authorized for local governments</th>
<th>Are there numerical constraints on debt?</th>
<th>Constraints on use of debt for intermediate governments</th>
<th>Can SNGs use tax sharing as guarantees?</th>
<th>Do SNGs borrow from local banks?</th>
<th>Borrowing practice of SNG public enterprises</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinidad and Tobago</td>
<td>Yes</td>
<td>By national government and local legislature.</td>
<td>By national government and local legislature.</td>
<td>Borrowing is limited to the amount approved in annual estimates of expenditure.</td>
<td>For investment or overdraft.</td>
<td>No</td>
<td>No</td>
<td></td>
<td>The national government guarantees the full amount of loans made to SNGs.</td>
</tr>
<tr>
<td>Uruguay</td>
<td>Yes</td>
<td>By the department legislature.</td>
<td>By national legislature and legislature at the department level.</td>
<td>Quantitative limits are determined in annual budgets.</td>
<td>There are no limits regarding use of borrowed funds.</td>
<td>No</td>
<td>No</td>
<td></td>
<td>Enterprises do not contract debt independently from SNGs, which assist firms in case of deficit.</td>
</tr>
<tr>
<td>Venezuela</td>
<td>Yes</td>
<td>By special law passed by the national legislature, and by national government, and the state or local legislature.</td>
<td>By special law passed by the national legislature, and by national government, and the state or local legislature.</td>
<td>Are not allowed to borrow.</td>
<td>There are no limits regarding use of borrowed funds.</td>
<td>No</td>
<td>No</td>
<td></td>
<td>Those practices are subject of the same authorization process that states and municipalities need to undergo when borrowing. The authorization process for SNGs must go extremely difficult and slow virtually prohibiting them from borrowing.</td>
</tr>
</tbody>
</table>

Note: Shaded areas indicate that the level of government does not exist.
APPENDIX D
DATA SOURCES

VARIABLES OF FISCAL PERFORMANCE

Total public debt as a share of GDP. Average for the period 1990–95. Source: 1) Latin America: own calculations based on Recent Economic Developments, IMF. 2) OECD: OECD national accounts, 1996.


Capital expenditures from the consolidated public sector as a share of GDP (Gk). Average for the period 1990–95. Source: 1) Latin America: own calculations based on Recent Economic Developments, IMF. 2) OECD: OECD national accounts, 1996.

Net interest payments from the consolidated public sector as a share of GDP (Gr). Average for the period 1990–95. Source: 1) Latin America: own calculations based on Recent Economic Developments, IMF. 2) OECD: OECD national accounts, 1996.

Social security expenditures from the consolidated public sector as a share of GDP (Gss). Average for the period 1990–95. Source: 1) Latin America: own calculations based on Recent Economic Developments, IMF. 2) OECD: OECD national accounts, 1996.

Consolidated public sector revenues as a share of GDP. Average for the period 1990–95. Source: 1) Latin America: own calculations based on Recent Economic Developments, IMF. 2) OECD: OECD national accounts, 1996.

Primary surplus from the consolidated public sector as a share of GDP. Average for the period 1990–95. Source: 1) Latin America: own calculations based on Recent Economic Developments, IMF. 2) OECD: OECD national accounts, 1996.

CONTROL VARIABLES

Total public debt as a share of GDP at the beginning of the period of analysis. Source: 1) Latin America: own calculations based on Recent Economic Developments, IMF. 2) OECD: OECD national accounts, 1996.


INSTITUTIONAL VARIABLES AND INDICES


Legislative electoral formulas. Source: Constitutional and legal texts.

Absolute number of political parties with representatives in parliament. Source: Wilfred Derksen.

Effective number of political parties with representatives in parliament. Source: Own calculations based on data by Wilfred Derksen.

Percentage of legislative seats held by the head of government’s party (or parties) in the lower (or single) house. Source: Wilfred Derksen.

Changes in legislature allowing mayoral elections, election systems for executive and legislative branch in subnational levels, existence of other mechanisms of citizen participation. Sources: Decentralization survey conducted at the IDB by the Office of the Chief Economist (1997), constitutions and relevant laws, and Nickson (1994).

INDICES


