3

Pro- and Anti-Market Reforms in Democratic Brazil

ARMANDO CASTELAR PINHEIRO, REGIS BONELLI,
AND SAMUEL DE ABREU PESSÔA

This chapter is motivated by a riddle: why, after implementing so many reforms over the last quarter century, has Brazil fared so poorly at accelerating economic growth? There are two possible answers. The first is that the reforms were well chosen and well targeted but faced serious obstacles in meeting the growth objective. They may have been poorly implemented or incomplete, perhaps because of problems of design (poor sequencing or lack of complementary reforms, for instance), or because they were sidetracked by problems not initially foreseen or that emerged during, or were even caused by, the reform process itself. This explanation fits the facts in Brazil's case: the process of market-oriented reform did face implementation problems, for example in the regulation of infrastructure, and it does remain incomplete in several areas, from education to judicial reform.

The other explanation hinges on the reforms themselves: although pursued forcefully, they may have targeted the wrong foundations, failing to address those that were actually constraining growth. This may have occurred, for instance, if the reforms were selected to foster goals other than accelerating growth. This description, too, fits the Brazilian case, not so much because the reforms as a whole

We thank Liliana Rojas-Suarez, John Williamson, José De Gregorio, and other participants at CGD's "Helping Reforms Deliver Growth in Latin America" workshop for helpful comments on an earlier version of this paper. A longer version of this paper including a technical annex and a list of acronyms is available on CGD's website, www.cgdev.org.

aimed at the wrong foundations, but rather because several of the reforms were more concerned with distribution than with growth, while others did seek to foster growth but did not do so in a market-oriented way. More important, the reforms that pursued these other goals were not neutral with respect to growth but actually compromised the foundations for growth. In short, even as policymakers were, with one hand, fighting inflation, opening the economy, eliminating restrictions on business practices, and privatizing, with the other hand they were actively pursuing what we call anti-market reforms: changes in legal norms and policies that discouraged investment and productivity growth. These reforms seriously weakened the link between market-oriented reform and growth. As a result, the reforms as a whole, while reducing the burden of regulation, at the same time enhanced the role of the state in directly allocating resources, by expanding public expenditure, and weakened property rights.

One can point to several examples of this parallel reform agenda. The 1988 constitution sought to enhance political competition and equality of opportunity, but it also contained some clearly nationalist and statist provisions: it established public monopolies in telecommunications, oil, and the distribution of natural gas; created barriers to foreign ownership in mining and electricity; and reduced contract flexibility in labor markets. In addition, the stabilization plans of the 1980s and 1990s relied on price freezes that breached financial contracts and, in the case of the 1990 plan, blatantly disregarded property rights. More recently, a large primary fiscal surplus contributed to stabilizing the public debt-GDP ratio, but it coexisted with a huge expansion in taxes and current expenditure. Income transfer programs helped spread the benefits of growth, but these were structured in such a way that they discouraged participation in the social security system. A more independent judiciary increased protection against arbitrary government decisions, but, by pursuing distributive goals rather than imposing the rule of law, judges have often weakened contract and property rights.

We regard the expansion in public expenditure, the change in its composition (a decline in public investment and a rise in current outlays), and the concomitant increase in the tax burden as the most harmful of Brazil's anti-market reforms, because of the consequences for macroeconomic stability. Looking forward, priority should be given to a fiscal reform aimed at reducing current expenditure and the tax burden, while creating the fiscal space needed for an increase in public infrastructure investment. Implementation of such a reform will require overcoming political barriers of various sorts. Part of the rise in current public spending stemmed from new obligations enshrined in the 1988 constitution or created in the following years, which were perceived as necessary for securing citizenship rights and the stability of democratic institutions. The new constitution also ended twenty years of fiscal centralism, eventually causing a major expansion in state and municipal revenue and fiscal spending that will be hard to reverse, given that political support for spending reduction is weak.

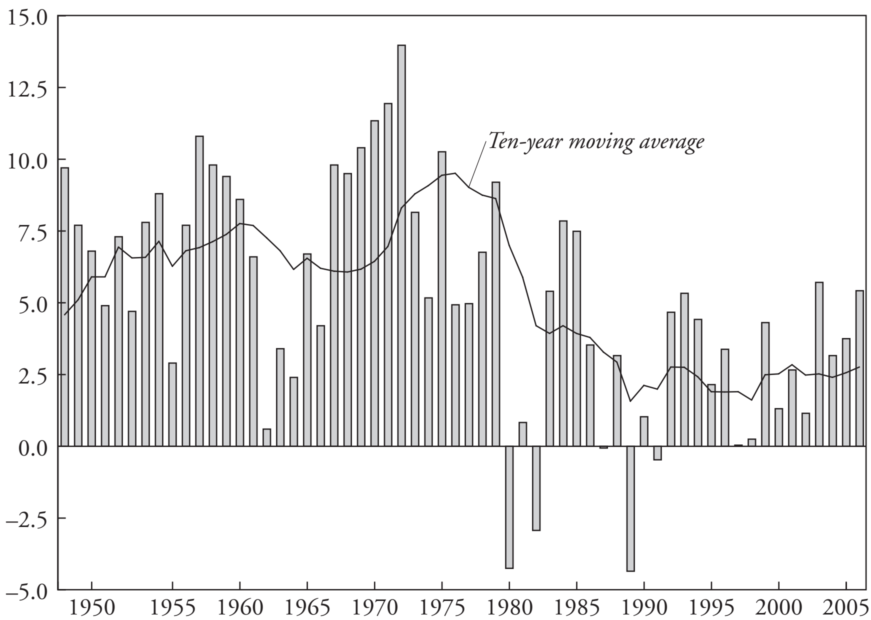
This chapter discusses the Brazilian reform riddle and identifies the reforms that we see as having the greatest potential to enhance future growth, while highlighting the role of politics in explaining past outcomes and shaping the new reform program. We begin by reviewing the main stylized facts of Brazil's recent growth performance. We then discuss the recent history of reforms, the way they affected the foundations for growth, and the issues of reform selection and incompleteness. Next, taking a more forward-looking approach, we analyze the reforms that we believe have the greatest promise of positively impacting the foundations for growth in Brazil. The chapter ends with some brief concluding remarks.

Some Stylized Facts on Growth and Inclusion in Brazil

Growth and Productivity

After five decades of strong performance, Brazil's GDP growth rate plunged in the early 1980s; in the quarter century since then, average growth rates have yet to return to their previous levels. Figure 1 shows that since the late 1980s, long-term real GDP growth (as measured by a ten-year moving average) has stayed around 2.5 percent a year, roughly a third of its 1950–80 average. With population continuing to grow rapidly, growth in income per capita has been just a little over

Figure 1. *Growth of GDP, 1948–2007*
Percent a year



Sources: Instituto de Pesquisa Econômia Aplicada (www.ipeadata.gov.br) and authors' calculations (2006 and 2007 data are based on quarterly GDP estimates).

1 percent a year. Having outperformed most other Latin American countries from the 1950s through the 1970s, Brazil has been performing below average since then. In particular, Brazil has been comparatively unsuccessful in exploiting the exceptionally favorable external conditions—including strong demand for certain commodities produced by Brazil, as well as low international interest rates—that characterized the mid-2000s.

This comparison highlights the contrasts among three main subperiods since 1950. The first, from 1950 to 1980, was marked by rapid output growth, with Brazil outpacing other countries in the region, which nonetheless also did well. The second, from 1981 to 1994, combined a sharp deceleration in growth with poor performance on other macroeconomic indicators, particularly inflation, which was very high. This subperiod was also marked by a less favorable external environment, which led to a contraction in growth throughout the region, with few exceptions. The most recent subperiod, 1995–2007, encompasses the post-stabilization years, which were marked by low inflation and a more open and less regulated economy, not only in Brazil but also in most other Latin American countries.

The mediocre economic record in this last period suggests that either the structural reforms implemented in the 1990s had only a limited impact on GDP growth, or other factors hampered their effect. What might have hindered Brazil's growth? Apparently not a lack of demand. Indeed, whenever economic activity has accelerated in recent years, price pressures forced a deceleration in the following years, suggesting that the economy had been operating at close to full capacity. This would imply that Brazil's inability to grow more rapidly has been due to supply constraints. Which of these were most critical? We examine this question by applying a supply-side, Solow-type decomposition to GDP growth in each of the three subperiods, assuming a Cobb-Douglas function:

$$y_t = A_t k_t^{\alpha} H_t^{1-\alpha}$$

$$H_t = \exp\left[\phi\left(h_t\right)\right] = \exp\left[\frac{\eta}{1-\psi} h_t^{1-\psi}\right],$$

where y_t, k_t, A_t, and h_t are, respectively, GDP per worker, the capital-labor ratio, total factor productivity (TFP), and average labor force schooling at time t. (See the longer version of this chapter on the CGD website for more detail on the decomposition.)

Table 1 shows that the rapid GDP growth of 1951–80 reflected a combination of rising employment and a substantial increase in labor productivity. In turn, roughly two-thirds of the latter was generated by the increment in the economy's capital-labor ratio, with almost all the remainder stemming from TFP growth. Remarkably, human capital accumulation contributed virtually nothing to the expansion of output during this high-growth period. Most of the growth

Table 1. *Brazil: Accounting for Growth, 1951–2006*
Percent change per year (annual averages)

Item	*1951–80*	*1981–94*	*1995–2006*
GDP[a]	7.1	1.9	2.6
Employment	3.0	2.1	2.1
GDP per worker	4.1	−0.2	0.5
Contributions to change in GDP per worker			
Capital per worker	2.6	0.5	−0.9
Human capital	0.1	0.8	0.7
Total factor productivity	1.4	−1.5	0.7

Sources: Authors' calculations using data from Instituto de Pesquisa Econômica Aplicada (www.ipeadata.gov.br) and Instituto Brasileiro de Geografia e Estatística.

a. Calculated as the average log change in GDP, which produces slightly lower growth rates than taking the geometric mean.

slowdown in the "lost decade" that followed resulted from a decline in labor productivity growth, which actually turned negative, with a smaller part coming from slower employment growth. The contraction in GDP per worker, in turn, was the result of TFP growth turning negative and the capital-labor ratio rising at a much slower pace, effects that were partly compensated for by an expansion in human capital. Finally, the rise in GDP growth in the poststabilization period was due entirely to faster growth in labor productivity, which in turn is fully explained by the recovery in TFP growth. Indeed, the acceleration in GDP growth would have been even larger had the capital-labor ratio not contracted sharply. Meanwhile the contribution of human capital accumulation, rather than continuing to accelerate, saw a marginal decline from the previous subperiod.

How does Brazil's growth decomposition compare with that of other countries? To answer this question we repeated the above exercise using international GDP, investment, and labor force data. (Again, the online version of this chapter has more detail.) The growth decomposition was performed for country groups in order to benchmark the numbers for Brazil. We divided the countries in our sample into six control groups and considered separately the two most recent "economic miracle" countries, China and India. All comparisons point to the conclusion that reform had a positive impact on growth, but that this impact was unevenly concentrated on bringing TFP growth back from the negative rates observed during the "lost decade," with comparatively smaller gains in rates of physical and human capital accumulation.

Did Growth Become More Inclusive?

A problem with the above analysis is that the observed increase in income since 1994 may have been so unevenly distributed that some population segments experienced significant income gains, at least compared with the average, and others none. Determining whether this is in fact the case becomes especially important given that some reforms in Brazil aimed not at accelerating growth, but precisely at improving the income distribution or reducing poverty. Thus an important question is whether growth in the postreform period, although slow, was at least more equitable than before.

The prereform period can fairly be characterized as anti-poor: from 1960 to 1990 the share of total income accruing to the poorest half of the population declined by 6 percentage points, while the share going to the richest 20 percent increased by 11 percentage points (Barros and Mendonça, 1995). In the years that followed, however, growth was clearly pro-poor: the share of the poorest half in total income rose from 11.5 percent in 1990 to 14.0 percent in 2005. Meanwhile the proportion of households living in poverty dropped from 36 percent to 23 percent, and the Gini coefficient, a standard measure of inequality, fell from 0.61 to 0.57.

Growth also became more inclusive over time, being especially pro-poor in 2001–05, even though household income per capita grew by only 2.5 percent a year. This highlights the fact that greater inclusiveness resulted mainly from the improvement in income distribution, as revealed by the decline in the Gini coefficient from 0.60 to 0.57. Depending on the indicator adopted, between 70 and 90 percent of the reduction in poverty can be attributed to improvement in the income distribution. Barros et al. (2007) analyze the factors responsible for this drop in inequality and conclude that it resulted in equal measure from increases in labor and in nonlabor income. This contrasts with the finding of Kakwani, Neri, and Son (2006) of a large increase in nonlabor income, with the rise in labor income playing a subsidiary role.[1]

A problem with the above results is that changes in the income per capita of different groups in society may have been measured incorrectly. The poor and the nonpoor have different consumption baskets, and therefore using a single consumer price index to deflate changes in nominal income for all households may bias the results. This problem becomes particularly important following the kind of reforms adopted in Brazil, notably trade liberalization, which not only expanded access to a broader set of goods but also produced large swings in relative prices, including those of foodstuffs. Carvalho Filho and Chamon (2006) try to account for this by looking directly at household food expenditure in the 1990s: they find that this category of spending fell at all income levels. Assuming that the share of food in total expenditure varies according to Engel's Law, they conclude that the increase in mean household income must have been much larger than that recorded by the national household surveys and the national accounts. The over-

1. This difference stems in part from the fact that Barros et al. used the Gini coefficient, which attributes greater weight to the middle of the distribution than the social welfare function used by Kakwani et al., which "mixes" the Gini and Theil indices.

statement of consumer price inflation and the consequent underestimation of income growth resulted from the introduction of new products in the consumption basket and from the substitution effect stemming from relative price changes and were particularly strong for the lower income deciles.[2]

However, there are reasons for concern looking forward. For one thing, as noted by Carvalho Filho and Chamon (2006), the gains stemming from relative price changes are one-time gains that will not be repeated. For another, reform does not seem to have increased Brazil's historically low elasticity of poverty with respect to average income: Ferreira, Leite, and Ravallion (2007) estimate this elasticity to be 1.09, about half the value obtained in the literature for the average developing country. Our own results, summarized in table 2, confirm that finding. We added data for 2005 and 2006 to Ferreira et al.'s dataset and estimated the following equation with household data:

$$\ln\frac{H_t}{H_{t-1}} = \beta_0 + \beta_1 \ln\frac{y_t}{y_{t-1}} + \beta_2 \ln\frac{G_t}{G_{t-1}} + \varepsilon_t, \tag{1}$$

where H_t is the share of the poor in total population, y_t is average family income, and G_t is the Gini coefficient. The estimated coefficient on average family income is somewhat lower than 1 in absolute value, and that on the Gini is about 2. A dummy for the period 1994–2006, interacted with $\ln(y_t/y_{t-1})$, yielded insignificant results, which we interpret to mean that, despite recent improvements, there is no statistically significant evidence of an increase in Brazil's growth elasticity of poverty.

A final reason for concern is that social spending in Brazil, although high, is mostly neutral in distributive terms. Thus, although the income distribution has improved since the mid-1990s, the large rise in current public spending explains a comparatively limited share of this gain, and that only recently, when better-targeted programs were implemented. One reason is that the new spending added to rather than substituted for already existing programs, so that public subsidies to well-off families, notably through the social security system, were kept in place and in some cases even increased. Although monetary transfers other than pensions account for an important share of gross income among households in the bottom quintile of the household income distribution, they account for a relatively small part of total public social spending.

The other main reason why growth in public spending contributed relatively little to improving the income distribution is that it was financed mainly by an

2. This result is not surprising when one considers more closely the specific changes introduced in the 1990s. Reforms in this period focused on disassembling much of the policy apparatus inherited from the postwar era, one important feature of which was a strong anti-poor bias, partly stemming from adverse relative prices. In this way, the observed welfare gain over the 1990s can be interpreted as partly the result of the unwinding of previous noninclusive policies.

Table 2. *Estimates of the Growth Elasticity of Poverty in Brazil*

	Ordinary least squares estimates			*Instrumental variables estimates*		
Independent variable	*1*	*2*	*3*	*4*	*5*	*6*
Constant (β_0)	–0.005	0.005	0.003	–0.004	0.001	0.001
	(0.009)	(0.005)	(0.006)	(0.009)	(0.003)	(0.003)
Average family income (β_1)	–0.73	–0.94	–0.85	–0.85	–0.88	–0.86
	(0.08)	(0.04)	(0.04)	(0.15)	(0.05)	(0.06)
Gini coefficient (β_2)		1.94	1.97		2.00	1.96
		(0.04)	(0.18)		(0.20)	(0.20)
Dummy for 1994–2006			–0.03			–0.07
			(0.07)			(0.12)
R^2	0.80	1.00	0.98	0.78	0.98	0.98
Adjusted R^2	0.79	0.99	0.97	0.77	0.97	0.97
Standard error of the regression	0.04	0.02	0.01	0.04	0.01	0.01

Source: Authors' regressions using data from the Pesquisa Nacional por Amostra de Domicilios (PNAD).

a. The dependent variable is the change in the percent share of the poor in the total population. Numbers in parentheses are standard errors.

increase in indirect taxes, which are especially regressive. Although all families were burdened by the significant rise in taxes, the poor were affected disproportionately. Families with monthly incomes of up to twice the minimum monthly salary saw their tax burden increase by 21 percent between 1996 and 2004, compared with an 8 percent rise for families earning more than thirty times the minimum salary. Because higher indirect taxes are mostly levied at the production stage and passed along in the distribution chain, they are not visible in the price charged to consumers, and so their size goes largely unnoticed.

At the end of the day, the overall program of taxes and transfers has done very little to change the income distribution. Unlike in Europe, the Gini coefficient in Brazil is roughly the same before and after taxes and monetary transfers. However, there is an important asymmetry between the visibility of benefits, such as the Bolsa Família program (a family stipend program for the poor, enlarged under its present name in 2003), and that of their financing. And this, perhaps more than the results themselves, makes this process of expanding the state popular among voters.

What Has Worked, What Hasn't, and Why

Have Reforms Addressed the Foundations for Growth?

When Brazil started its reform process, most of the foundations for market-based growth identified in the CGD framework (see chapter 2 of this volume) were badly compromised: inflation was high, the fiscal accounts were in shambles, human capital was modest and highly concentrated, and widespread discretionary state intervention meant that property rights were not secured against administrative expropriation, but rather helped ensure the appropriation of rents by elite groups, from civil servants to large industrial firms. Reforms have tried and partly succeeded in putting these foundations right. The focus has been on fostering the first two of the foundations in the CGD framework, *political and economic competition* and *macroeconomic stability.* It is easy to see why.

Brazil became a military dictatorship in 1964, and a return to democracy was on the agenda from the mid-1970s onward; this process accelerated with the enactment of the amnesty law in 1979. The political reforms of the 1980s involved the transfer of power back to civilians. In 1985 Congress elected a civilian president, in 1988 it enacted a new constitution, and in late 1989 a new president was elected by popular vote. Reforms in the rules governing the creation of political parties, the adoption of the new constitution, changes in electoral rules, and the strengthening of the judiciary were all critical to allowing fair and broad participation in political affairs.

Brazil entered the 1980s with very high inflation, which would only begin to subside in 1994, and serious disequilibria in its fiscal accounts, including a large public debt, which remains a problem to this day. Several reforms focused on curbing the expansion of public expenditure and liabilities, and others on raising revenue. Financial reform was critical to limiting the ability of state and municipal governments to finance their expenses through their own banks, to be rescued ultimately by the national treasury; pension reforms, both through the *fator previdenciário* (a new pension adjustment formula) and the establishment of a minimum retirement age for civil servants, sought to limit the expansion of pension expenditure; changes in fiscal and budgetary institutions, such as the creation of two new senior vice ministries (the Secretariat for the Control of State Enterprises and the National Treasury Secretariat), the end of the "monetary budget," and the enactment of the Fiscal Responsibility Law, to name a few, helped to limit the expansion of public spending and increase its transparency. In the financial sector, several reforms in the wake of the banking crisis of the second half of the 1990s made the financial system more robust against macroeconomic shocks. Tax reform allowed for a major rise in public revenue. Proceeds from the privatization of state enterprises were used to redeem public debt. Trade liberalization made aggregate supply more flexible, facilitating management of the business cycle and keeping the prices of tradable goods in check, notably after the launching of the Real Plan (a wide-ranging macroeconomic stabilization program) in 1994.

One of the main aims of the reform process was to increase competition in the economy, in an effort to boost productivity and enhance consumer welfare. The previous economic model had been based on widespread state intervention—

which encompassed a tight control of supply through high entry barriers—and the transfer of rents to producers (at the expense of consumers), to foster investment and compensate for lower competitiveness. The idea behind the reforms was to reduce entry barriers, state intervention, and producer rents. Trade liberalization brought a significant decline in tariffs and the end of various nontariff barriers. Several regulations limiting entry and competition, such as widespread price controls, were discontinued, and a new competition law and revamped antitrust agencies were put in place. Privatization was also guided by the goals of creating a competitive environment for the privatized firms and eliminating public monopolies.

The other growth foundations received less emphasis but were not forgotten. The importance of the third pillar in the CGD framework, *securing property rights,* has been generally acknowledged, even if more rhetorically than in practice. The return to democracy and the creation of an independent judiciary were aimed at protecting private individuals and firms against public expropriation. Measures against corruption and several changes in regulation, notably in infrastructure and finance, were likewise aimed at protecting the rights of citizens, investors, creditors, and shareholders against expropriation, both public and private.

A greater emphasis on basic education was the most important of several measures that addressed the fourth pillar, *equalizing opportunities.* Other important reforms included a move toward free universal health care. Administrative reform fostered the adoption of public examinations as the main criterion for entry to the civil service. Financial reform stimulated the birth of microcredit operations, and changes in the regulation of the use of collateral expanded the access of poorer consumers to credit. Minimum age requirements and the *fator previdenciário* made the criteria for eligibility to pensions more similar for poor and rich workers. Measures to curtail corruption also helped equalize opportunities.

Income transfers through social assistance programs were the main instruments used to encourage a *broader sharing of the benefits of growth*—the final pillar in the CGD framework. The constitution created an unemployment insurance system and made rural workers eligible for public pension benefits, even if they had contributed virtually nothing to the pension system in the past.[3] Several other transfer programs were later created to benefit the poor, some of them tied to requirements concerning school attendance and health care; these programs were later consolidated in the Bolsa Família program. A large increase in enrollment in basic and higher education was also important, as it contributed to lowering the skill premiums that foster inequality. Other reforms that led indirectly to a broader sharing of the benefits of growth include the lowering of inflation and the

3. In the early 1990s the Lei Orgânica da Assistência Social (LOAS) established a similar income transfer program for people aged 65 and above and the disabled, provided they lived in households where income per capita was below one-fourth the minimum monthly salary.

relative price changes caused by trade liberalization, which benefited the poor disproportionately.

Pragmatism and Anti-Market Reforms

As a rule, the reforms just described were not ideologically driven, but rather were adopted as a means of fostering private investment and TFP growth. This was perceived as the only way to reverse the growth slowdown that had begun in the early 1980s, in a context in which the state lacked the fiscal resources to lead this process itself as it had in 1950–80. These "pragmatic reforms" amounted to a broad but incoherent and uncoordinated reform process (Pinheiro, Bonelli, and Schneider, 2007). The individual reforms were largely disconnected one from another and pursued multiple and sometimes conflicting goals. While some were market-oriented, others enhanced the role of the state or conspired to curb market-based growth. Pragmatism also proved to be a weak impetus for reform: several reforms were abandoned midway when the problems they sought to solve fell off the priority list. The end result is that Brazil pursued many reforms but was left with *insufficient improvement in the overall envelope of foundations,* as several reforms were only partly implemented, or were sidetracked into pursuing other objectives, or tended to strengthen one foundation while weakening others.

In particular, although the reform process was supposedly market oriented, it left as its legacy a much larger state: public consumption nearly doubled as a share of GDP, from an average of 10.9 percent in 1951–80 to 20.0 percent in 1995–2005, causing public saving and investment to fall substantially. In 1991–2005 the primary (noninterest) expenses of the federal government rose by 8 percent of GDP. Pension expenditure accounted for the bulk of this rise, jumping from 4 percent of GDP in 1991 to 9 percent in 2005. Pension spending by state and municipal governments also rose sharply. Meanwhile capital outlays by the federal government declined by half, reaching a mere 0.6 percent of GDP in 2006.

In the initial years after the adoption of the new constitution, governments financed their growing current expenditure by letting inflation accelerate, counting on a reverse Tanzi effect (since revenue was better indexed to inflation than was expenditure)[4] and augmented revenue from seignorage. Indeed, revenue from the "inflation tax" averaged 1.5 percent of GDP in 1989–94, twice as much as the average for 1951–80. When inflation came down after 1994, the government expanded the (net) public debt instead, which ended 2006 at 45 percent of GDP, after peaking at 52 percent of GDP in 2003, up from 31 percent a decade earlier. High interest rates kept government bonds attractive, but they also reduced GDP growth by discouraging private investment and financial intermediation,

4. The Tanzi effect refers to a decline in the real value of tax revenue in an environment of high inflation.

in addition to feeding back into higher public spending through increased interest payments.

When borrowing was no longer feasible, governments turned to raising taxes. The federal government, in particular, boosted its tax proceeds by creating new taxes and raising rates on social contributions (this revenue is not shared with state and municipal governments). These efforts had three important effects. First, they counterbalanced the decentralization promoted by the constitution and, indeed, brought about some recentralization. Second, as no compensating tax reduction occurred in the states and municipalities, the total tax burden rose to new highs: from a relatively stable 25 percent in 1968–86, the tax share of GDP rose to 31 percent in 1995–2002, 33 percent in 2003–05, and 37 percent in 2007. Third, the complexity of the tax system also increased. The number of separate taxes increased over time, and so did their rates. Some are applied cumulatively, some share the same tax base, and others have rates that vary regionally. The end result is a complex, unstable, costly, and regressive tax system that is difficult to monitor. Among other things, the system greatly distorts relative prices, increases transaction costs, fosters movement to the informal sector, discourages financial intermediation, encourages rent seeking, shifts resources into tax planning, and concentrates income.

The surge in public consumption was so large that notwithstanding the rise in debt and taxes, it could only be accommodated through a significant decline in capital expenditure: total public investment, which includes investment by federal state-owned enterprises, dropped from 7.9 percent of GDP in 1968–78 to 2.7 percent in 2003–05.[5] Infrastructure was especially hard hit, with public investment in this area (again including state-owned enterprises) declining by about 4 percent of GDP between 1971–80 and 2001–03, which was not compensated by a rise in private outlays. One consequence has been a deterioration in infrastructure capital, with negative effects on productivity growth and income distribution.

Thus, Brazil's failure to achieve a greater acceleration of growth in the post-reform period resulted from a combination of reform failures: some reforms did not go far enough, others were not implemented at all, and still others actually compromised rather than strengthened the foundations for growth. Table 3 provides a scorecard of the positive and negative influences of these various reforms on the five foundations discussed above. To summarize:

- Democratization has fostered political competition, a broader sharing of the benefits of growth, and more equal opportunity. Compared with most of the 1951–80 period, however, it has reduced the security of property rights, despite greater protection against administrative expropriation, and indirectly weakened

5. Reclassifications resulting from privatization account for about 1 percent of GDP.

Table 3. *Brazil: Actual Impact of Reforms on the Growth Foundations*

Reform	*Period*	*Property rights*	*Equal opportunities*	*Competition*	*Broad sharing of growth benefits*	*Macro-economic stability*
Democratization	1979–88	–	+	++	+	–
Trade liberalization	1987–93			+	+	+
Privatization	1981–00			+		+
Regulatory	1991–01	–		+		
Decentralization	1988–95		+		+	– –
Financial sector	1995–05	+	+			+
Education	1995–00		+		+	
Pension	1995–03				–	– –
Social assistance	1988–05		+		+	–
Tax	1988–06	–		– –	–	++
Labor	1988		–	–		
Fiscal and budgetary	1979–01			+		+
Judiciary	1988, 2004–06	–	+	+		
Electoral	1988–2006	–	+	++		–
Anti-corruption	1988–2002			+		
Administrative	1988–98					–

Key: +, positive; ++, strongly positive; –, negative; – –, strongly negative.

macroeconomic stability. The impact on property rights resulted from a mixture of increased judicial activism, misguided legislation, more frequent changes in legal norms, and greater tolerance of crimes against property. The impact on macroeconomic stability resulted from the rise in current expenditure, which relied on support from politicians and voters.

• Trade liberalization, privatization, and regulatory reform have contributed to stronger competition, and the first two to greater macroeconomic stability as well. But regulatory reforms, because they remain incomplete and have even suffered some setbacks in recent years, have not properly secured property rights.

• Decentralization and the reform of social assistance programs have contributed to more equal opportunity and a broader sharing of the benefits of growth, by granting more than proportional power and attention to the country's poorer states, municipalities, and households. This was achieved, however, by raising current public expenditure, thus weakening macroeconomic stability, rather than by diverting resources from the rich. Moreover, no effort was made to establish a clear link between the value and coverage of transfers and output performance, and so the sharing of benefits has failed to strengthen the constituency in favor of market-based growth reforms.

• A similar argument can be made regarding pension reform. The changes enshrined in the constitution have greatly expanded public spending and have disproportionately benefited the better off, by providing more favorable retirement conditions to civil servants and formal sector workers. Although some of the later reforms went in the opposite direction, the net effect on the growth foundations was negative.

• Fiscal and budgetary reforms, changes in the education and financial sectors, and anti-corruption measures have had positive effects on the foundations that were not offset by significant negative effects. In particular, the fiscal and anti-corruption reforms have made political competition fairer, and the education and financial reforms contributed to equality of opportunities, by focusing on access of the poor to basic education and to financial services (such as microcredit).

• Judicial and electoral reforms have made political competition fairer and helped equalize opportunity, notably in the political sphere. But neither reform has contributed to strengthening the security of property rights, and the party fragmentation that has resulted from electoral reform has created collective action problems that favor the expansion and increased inefficiency of public expenditure, as explored later in this chapter.

• Labor regulations introduced by the 1988 constitution benefited mostly formal sector workers, at the expense of informal and unskilled workers.[6] Hence this reform tended to reduce both equality of opportunities and economic competition.

• Tax reform, although a perennial theme in policy discussions in Brazil, has consistently focused on increasing revenue rather than the pursuit of a more rational system that would encourage investment. This has led to uneven competition between formal and informal sector firms, lowering productivity growth. Moreover, much of the more recent rise in taxes has occurred through an expansion in indirect taxes, which harm the poor disproportionately.

The incompleteness of reform to date was a more or less natural outcome of the pragmatic approach taken to reform. One reason why market-oriented reforms went as far as they did is that they were perceived as instrumental in sustaining price stabilization, a popular policy goal. Once this link weakened, so did the drive for greater economic liberalization. Thus, although it has not stopped altogether, Brazil's reform process has greatly decelerated since 2000. The only noteworthy exceptions have been the enactment of a new bankruptcy law, the introduction of more stringent rules for the retirement of civil servants, and a reform of the judicial system. But these were partly offset by a partial reversal of

6. The World Bank's Doing Business indicators reveal that labor laws in Brazil restrict contract flexibility and increase the cost of hiring and firing workers more than in most other countries, but this only benefits half of the labor force, while making it more difficult for the other half to get a job or enter the formal sector.

previous regulatory reform in infrastructure and an expansion of state business activities in finance and manufacturing.

Several factors contributed to the reduced pace of the reform process in this decade: a similar slowdown in the rest of the world, the low growth rates recorded in the postreform period, and the opposition's victory in the 2002 presidential elections, which itself in part reflected the unpopularity of reforms. Moreover, the political debate fails to link the recent acceleration in growth to the reforms, because the growth came after the election of political leaders historically opposed to these reforms. At the same time the resurgence in growth has tended to mitigate the urgency of reform. The same is true with respect to the recovery in world economic growth and the ensuing rise in commodity prices, thanks to which Brazil achieved current account surpluses in 2003–07 and a smaller net external debt. Together with an abundance of international financial liquidity, this has reduced the clout of the multilateral development organizations and of foreign investors in pushing reform forward. Even though the pendulum has not swung back toward state intervention as far as it has in some other South American countries, the enthusiasm for market-oriented reform has clearly subsided.

The same has not, however, happened to the anti-market reforms, notably the structural rise in current expenditure made possible by higher taxes and lower public investment. This reform did more than perhaps any other to move the economy away from the kind of market-based economic model that underlay privatization, trade and financial liberalization, and deregulation. To gauge the impact of the recent tax increases and simultaneous decline in infrastructure investment on Brazil's long-term growth, we simulated what would have happened to Brazil's long-term growth path had taxation and infrastructure investment stayed at levels similar to those that prevailed before the new constitution. Our simulation uses a version of the neoclassical growth model that considers infrastructure provided by the public sector as a public good subject to congestion (Barro, 1990). In this model, increases in the tax burden reduce the private return on capital, and a reduction in public investment causes a reduction in the supply of public goods, which are complementary to private capital; both effects, in turn, contribute to reducing income in the long term. The model thus relates the long-term (steady-state) income ratio y_1/y_0 to public investment as follows:

$$\frac{y_1}{y_0} = \left[\left(\frac{\lambda_1}{\lambda_0}\frac{\tau_1}{\tau_0}\right)^{\beta}\left(\frac{1-\tau_1}{1-\tau_0}\right)^{\alpha}\right]^{\frac{1}{1-\alpha}} = \left[\left(\frac{\Lambda_1}{\Lambda_0}\right)^{\beta}\left(\frac{1-\tau_1}{1-\tau_0}\right)^{\alpha}\right]^{\frac{1}{1-\alpha}},$$

where λ is the share of public revenue expenses in offering the public good, τ is the tax on firms' output, and $\Lambda = \lambda\tau$ is public investment as a share of GDP. (See the online version of this chapter for further details of the model and the simulation.)

Our base case calibrates the model using the following values: τ_0, 0.25; τ_1, 0.35; $\Lambda_1/\Lambda_0 = 0.5$; $\alpha = 0.4$; $\beta = 0.09$. Solving for these values gives $y_1/y_0 = 0.82$, which indicates that, by 2006, the adoption of such policies had reduced GDP by 18 percent compared with our counterfactual scenario. Spread across almost twenty years, such a reduction amounts to an annual average decrease of nearly 1 percentage point in the growth rate of GDP. In other words, had it not been for the increase in the tax burden and the decline in public infrastructure investment, average annual growth over 1989–2006 would have been on the order of 3.3 percent instead of the actual 2.3 percent.

How Has Politics Influenced the Selection and Completeness of Reform?

As already noted, the 1988 constitution triggered many of the policies that have undermined growth in recent decades. One way it did this was through its provisions geared at strengthening the role of the state at the expense of greater market orientation. Another was through its concern with establishing legal rights, which led to an expansion in public expenditure while also reducing the flexibility and, to some extent, the security of private contracts. Yet to blame the constitution alone would be to miss the bigger picture. The constitution has already been amended several times over the years, and although some of these changes strengthened the foundations for growth, others went in the opposite direction. The same can be said of some of the legislative and policy changes approved since 1988. Therefore the 1988 constitution should not be seen as a one-time, exogenous decision that went astray, but as the result of a political environment that has systematically produced a mix of market-oriented and anti-market reforms. That is, these policy decisions need to be treated as endogenous to the country's social and political institutions, as choices made by different democratically elected politicians.

We attribute the problem of anti-market reforms to the interplay between democratization—a comprehensive institutional reform in itself—and Brazil's highly unequal income distribution.[7] Under the dictatorship, governments could overlook the political preferences of specific groups, but the return to democracy changed the government's incentives and encouraged a rise in current spending. As the poor acquired voting rights and became more engaged in the electoral process—a development to which rising urbanization and schooling also contributed—the demand for income redistribution increased. Given the ability of the existing beneficiaries to veto cuts in existing expenditure, and even in some cases to raise it (a tendency to which Brazil's fragmented party system also contributed), the end result was a rise in total spending rather than the redistribution

7. The sequencing of reforms may also have contributed to this outcome. Countries that liberalize politics before liberalizing the economy are likely to face more difficulties in negotiating a pro-growth set of reforms (Giavazzi and Tabellini, 2005). If true, this would mean that performance should be better in countries that liberalized in a sequence opposite to Brazil's, such as Chile and China.

of a fixed total. This accounts for the inconsistencies observed in the reform process: whereas the desire for economic growth and price stabilization tended to favor market reform, electoral incentives that led politicians to be more concerned with goals other than growth often resulted in an expansion of spending.

A similar argument can be made regarding the protection of property rights. Whereas public sector transfers can only redistribute income, property expropriation by the poor can redistribute wealth. This has been a critical factor in boosting popular acceptance of squatting, whether on rural land by (supposedly) landless peasants or on urban land by (equally supposedly) homeless families. The *favelas,* or shantytowns, also consume much of the electricity destined for noncommercial use in Brazil's cities, usually without paying for it; many households in the *favelas* also access stolen cable TV services. Legislation forbidding these practices—as well as other manifestations of informality, from street vending to the disregard of labor laws—often goes unenforced, because they are seen as practices that attenuate income disparities. A similar argument inspires Brazilian judges to render biased decisions in contract enforcement, tending to favor the poorer party in disputes involving labor, rent, and credit contracts. Although the authorities may turn a blind eye to these illegal practices only to favor the poor, problems of asymmetry of information prevent such fine tuning, and the end result is an environment of weak legal enforcement.

To the extent that more public consumption and transfers, on the one hand, and the weak enforcement of laws and contracts, on the other, are perceived by influential groups as means of redistributing income and wealth, it is plausible that inequality acts as an obstacle to the implementation of pro-growth reforms. Democratization, by giving voice, vote, and power to those who favor redistribution (for example, to judges), even if at the expense of growth, has changed the balance of power from what it was during most of Brazil's high-growth period, and especially the period of centralized decision-making under the military regime. Coming so soon after the debt crisis, this change in the political underpinnings of economic policy has helped to extend the growth slowdown that began a few years earlier. Yet the resulting growth constraints differ from those of the early 1980s, which stemmed from external shocks.

Thus Brazil's experience is consistent with the political economy argument that greater income inequality tends to reduce growth because in unequal economies the income of the median voter is well below the average. If the political system is democratic, election outcomes will favor policies that raise income and property tax revenue and redistribute the proceeds to the poor.[8] To assess Brazil's perfor-

8. Bénabou (2006) notes that the empirical evidence points to a U-shaped relationship between inequality and the tax burden: in the descending region of the curve, the relationship is dominated by the insurance aspect of public sector policies, whereas in the ascending region the redistributive goals of the public sector dominate. This explanation is consistent with the prediction that at high levels of inequality the relationship between inequality and the size of the tax burden will be positive.

Table 4. *Regressions Explaining Social Security Expenditure*

Independent variable	*Regression* 1	2	3	4	5
Constant	−2.03	18.74	44.04	18.52	−3.54
	(−2.09)	(2.20)	(4.47)	(2.20)	(−1.47)
Income per capita	0.07		0.18	0.06	0.07
	(1.57)		(3.52)	(1.50)	(1.44)
Percent of population age 65 or more	0.94	1.00		0.91	1.02
	(8.63)	(7.68)		(6.39)	(7.00)
Gini coefficient		−102.45	−167.32	−101.90	
		(−2.70)	(−3.50)	(−2.72)	
Square of Gini coefficient		120.98	168.13	120.79	5.32
		(2.78)	(2.99)	(2.81)	(0.72)
No. of observations	60	56	56	56	56
Adjusted R^2	0.72	0.73	0.54	0.74	0.71
Log-likelihood	−154.30	−141.66	−156.91	−140.45	−144.24

Source: Authors' regressions.

a. The dependent variable is social security expenditure as a percent of GDP. Numbers in parentheses are t-statistics.

mance in this regard, we estimated a nonlinear relationship in a sample of fifty-six countries (for four of sixty countries in the original sample, Gini coefficients are not available) between social security transfers and the Gini coefficient under different specifications.[9] First we regressed social security expenditure on income per capita and on the population share aged 65 or more (equation 1 in table 4). This simple econometric model predicts that Brazil should be spending only 3.5 percent of its GDP on social security transfers; the actual figure was 12.7 percent, leaving a residual of 9.2 percent of GDP to be explained by omitted variables. We then added both the Gini coefficient and its square as regressors. The results, reported in the fourth column of table 4, show a better fit. Still, the residual for Brazil remains a very high 7.3 percent of GDP.

Thus, Brazil has higher social security expenditures than predicted by its demographic characteristics and its levels of income and inequality. We infer that although the interplay between re-democratization and high inequality explains much of the large rise in public transfers, it does not account for all of it. We believe the difference can be partly explained by the nature of Brazilian political institutions. Brazilian democracy is based on the proportional electoral rule. This rule produces a more fragmented legislature than under a majority-rule system, because it allows for a larger number of minority parties to be represented. Brazil's

9. Our approach follows that of Mello and Tiongson (2006). Data are from the World Bank database and refer to 2002.

system also reduces individual accountability compared with the majority-rule system and expands the number of potential veto holders. The empirical evidence suggests that proportional systems tend to raise social expenditure by up to 3 percent of GDP compared with other systems.[10]

The Way Forward: How to Accelerate Growth?

The Critical Foundations

Macroeconomic stability is the most critically missing growth foundation in Brazil. Even after price stabilization and the floating of the exchange rate, Brazil has had an unbalanced macroeconomic policy mix, which overburdens monetary policy and the tax system to compensate for a lax fiscal policy, a large public debt, and a structure of public spending that is greatly skewed toward current expenditure at the expense of public investment. *The high tax burden is one of the main obstacles to the acceleration of growth.* The high policy interest rate set by the central bank, combined with high taxation of financial intermediation, has limited financial deepening, further weakening the link between this foundation and growth. In addition, the central role played by the state in mobilizing and allocating savings dampens the impact of financial intermediation on capital productivity.

The security of *property rights* ranks second among the foundations most critically in need of streamlining. This foundation has received less attention in the reform process of the last quarter century. Reforms aimed at strengthening property rights moved slowly and were often only partly implemented. Moreover, the greater independence afforded to the judiciary has often translated into weaker rather than stronger property rights, as judges rule according to their political views and to pursue "social justice" through decisions aimed at redistributing wealth to debtors, tenants, employees, and others perceived as economically weak.

The *broad sharing of the benefits from growth* is a third critical foundation in need of strengthening. Since the early 1990s, income-compensating transfers and other types of public social spending have increased substantially, with a large rise in the real value of the minimum salary and an expansion in the coverage of social programs, so that they currently play an important role in reducing poverty. However, the present structure of transfers disproportionately benefits the elderly, whose poverty rate is roughly half the national average and a third of that among children. Thus, as currently structured, these transfer systems weaken the link between growth and its broad distribution, because they foster lobbies in favor of greater public spending and discourage labor force participation, when the latter would make households ineligible for benefits. Had this sharing taken place through the labor market rather than through transfers, the link with growth would

10. Persson and Tabellini (2003, chapters 6 and 9, mainly section 6.3).

Table 5. *Brazil: Expected Impact of Potential Future Reforms on the Growth Foundations*

Reform	*Property rights*	*Equal opportunities*	*Competition*	*Broad sharing of growth benefits*	*Macro-economic stability*
Trade liberalization			+	+	+
Privatization			+		
Regulatory	++		++		
Decentralization		+		+	
Financial sector		++	+		+
Education		++			+
Pension		+			++
Tax			+	+	++
Fiscal and budgetary					++
Judiciary	++				
Political and electoral			+		+
Anti-corruption	+	+	+		+
Administrative				++	+
Labor		+	+	+	

Key: +, positive; ++, strongly positive.

have been strengthened. This goal can be best achieved by lowering pension expenditure so as to create fiscal space for more effective conditional cash transfers.

Overall, given what we see as a crucial role for higher investment, we put at the top of the priority list those reforms that would create greater fiscal space for capital spending, a reduction in the tax burden, and a lowering of the public debt. Table 5 helps us connect the critical foundations with the main reforms on the agenda. It lists the reforms currently under discussion and relates each of them to the five foundations for growth, indicating the strength of their expected impact. Based on this list, we have chosen six reform areas as most important:[11]

- fiscal reform, which should combine a reduction in public consumption, especially through pension and social security reform, with an increase in public investment, especially in infrastructure, along with tax reform—all of which should contribute strongly to macroeconomic stability
- judicial reform and measures to deal with juridical insecurity, thereby enhancing the security of property rights
- financial sector reform, which impacts three foundations: macroeconomic stability (most importantly), economic and political competition, and (most strongly) equal opportunity

11. Diagnostics, justification, and motivation for each case are discussed in more detail in the online version of this paper on the CGD website.

• education reform, to achieve greater equality of opportunities and, by moving to tuition-based financing of higher education, to improve the fiscal balance and so increase macroeconomic stability

• regulatory reform, which should have strong impacts on securing property rights and promoting economic and political competition, and

• political reform, to facilitate the enactment of policies that promote macroeconomic stability and to improve the nature of political competition, while also addressing several of the foundations by reducing corruption.

Fiscal Reform: Social Security and Taxation

The improvement in Brazil's fiscal accounts can be seen in the maintenance of a primary surplus in recent years large enough to stabilize the public debt-GDP ratio. But even after almost a decade of consistently meeting primary surplus targets, Brazil's adjustment process is far from complete. The public debt remains very high, as does the real interest rate paid on that debt, so that a large primary surplus is required just to keep the debt-GDP ratio from embarking on an explosive path. This introduces considerable political risk into any medium-term scenario for the economy: the size of the primary surplus, which is determined year by year, depends on the micromanagement of different demands for higher spending, a task that can only be accomplished with backing from the president himself. The fiscal adjustment cannot be considered complete until the debt-GDP ratio falls to around 30 percent of GDP, which in turn would allow for a substantial and sustained decline in interest rates.

Another sign of the poor quality of fiscal adjustment is its dependence on a rising tax burden, which went from a relatively stable 25 percent of GDP in 1968–93 to over 35 percent in 2006. This increase has exceeded the amount necessary to meet the primary surplus target, and thus has also financed a major expansion in public primary spending. This higher spending did not, however, fall on items that would contribute to growth. Rather, it concentrated on pension payments. Public sector investment has fallen almost continuously, with negative consequences for the quality of infrastructure. Another problem is the pro-cyclical nature of fiscal policy due to the earmarking of revenue to specific expenditure items.

Fiscal reform should therefore focus on reducing current expenditure so as to expand public saving and investment and lower the tax burden, while also improving the quality of the tax system. In particular, efforts should be aimed at cutting social security expenditure, which has climbed to a level, relative to GDP, found elsewhere only in developed economies with older populations.[12]

12. Although we rank the social security system as the most critical area for expenditure reduction, it is hardly the only one. Other areas include the public sector's payroll and procurement practices. Mention should also be made of the need to improve managerial practices and implement more efficient procedures through another round of administrative reform, continuing the (largely abandoned) reforms that took place just after President Fernando Henrique Cardoso came to power in early 1994.

Social Security Reform

The Brazilian social security system is well known for the generosity of its retirement benefits; this generosity increased with the advent of the 1988 constitution. The main issue concerns the rules governing access to benefits, both for their impact on total expenditure and because they award large subsidies to politically influential groups. There is no minimum retirement age for private sector workers, and so a large proportion retire quite young by international standards. Moreover, under present rules women can retire five years earlier than men, and some professionals, such as teachers, can retire five years earlier than regular workers.[13] The other main issue is the generous way in which benefits are periodically adjusted: for most retirees, benefits increase at the same rate as the minimum wage, which rose by an average of 5.3 percent a year over 1995–2007 in real terms, four times as fast as GDP per capita. The system's rules have combined with a major demographic transition to create a bleak outlook for its finances.

There are two ways to curb the trend toward larger social security deficits: cut expenditure or collect additional revenue. Brazil has traditionally favored the latter, which partly explains its high tax burden and high share of workers in the informal sector. The reform proposals discussed next focus on curbing expenditure growth. This should be done along two main lines. The first concerns the rules for the periodic adjustment of the minimum value of benefits; the second deals with changes in the rules that govern access to benefits, especially retirement benefits. We have intentionally left out increases in individual contributions, because we see the system's main problem as its large size rather than the deficit per se. Specifically, we propose that the backbone of a new round of social security reform consist of five measures:[14]

- *De-link the value of pension benefits from the minimum wage.* Pensions and income transfers should be indexed to past inflation so as to keep the real value of benefits constant. Benefits will then more closely reflect the actual contribution made by retired workers to the system, while freeing the minimum wage to incorporate contemporaneous increases in productivity.
- *Fix a minimum retirement age for access to INSS (Instituto Nacional de Seguridade Social) benefits and increase the minimum age over time,* according to

13. A constitutional amendment approved in 2003 imposed minimum retirement ages for men (60) and women (55) in the civil service but continued to allow teachers to retire five years earlier than other workers: in the public sector, male teachers can retire at 55 and female teachers, who comprise the vast majority, at 50. This rule has no equivalent anywhere in the world, as far as we know, and it greatly burdens the fiscal accounts of state and municipal governments, while at the same time limiting the possibility of better pay for teachers still in the work force, with negative repercussions on the quality of education.

14. See Pinheiro and Giambiagi (2006), Giambiagi (2006), and Tafner and Giambiagi (2007) for additional discussion of these proposals.

a pre-established rule, as average life expectancy increases. This would reduce the ratio of beneficiaries to contributors and would reduce the subsidies given to (mostly formal sector) workers who retire relatively young.

- *Move toward a single set of rules governing access to pensions for men and women.* The present five-year difference should be reduced to two or even eliminated over a reasonable period. Because women's life expectancy exceeds that of men, they would still enjoy a disproportional benefit, since they would receive benefits for a longer period on average.
- *Abolish the special retirement regime for teachers.* We propose that the active life of teachers of both sexes be extended by postponing their retirement, applying to them the same rules adopted for other workers.
- *Change the rules of access to benefits to older workers under the Lei Orgânica de Assistência Social.* Present rules encourage participation in the informal sector among workers with incomes near the minimum wage: these workers have no incentive to join the social security system, since they will earn the same benefit whether they contribute or not. Presently the benefit is unconditionally granted to all persons 65 and older. We propose limiting future concession of old-age benefits to those who have reached the age of 70 and have contributed to the social security system for some time to be determined.

These suggestions, admittedly, have low political viability, in part because of a general opposition to reforms that seek to reduce public expenditure. Without broad public understanding of the link between cutting public spending and accelerating economic growth, strong constituencies will remain against such reform, and support will be very weak. In the case of social security reform, opposition comes mainly from those who benefit from the present rules (teachers, formal workers, pensioners, and women). For those already retired, the likely benefits of reform, in the form of acceleration in output and employment growth, will be relatively small. The main losers from present policy are the younger generations and those not yet born, who do not yet participate in the political process.

What is worse, the federal government, the major agent of change, is itself not convinced that this reform should be pursued. It expects, perhaps self-servingly, that in due course a rise in formal employment will lower the system's deficit, which it perceives to be the central problem. Besides, social security expenditure is regarded as part and parcel of social policy, a politically sensitive area. Yet the prospect for rising expenditure and deficits is such that the accumulated imbalances are bound to require some kind of action eventually.

The way to advance with social security reform in these circumstances is to pursue a piecewise and gradual strategy. Some measures, such as establishing a minimum retirement age for private sector workers, enjoy some support and could be implemented separately. The fact that this rule (but not the sliding lower bound) already applies to civil servants should make approval easier. Although it is unlikely that Congress will allow the minimum salary to rise above the minimum pension benefit, legislation could be passed capping the rise in the real value of the former. The other measures proposed above are even more unpopular, yet even they may be politically feasible if approved only for those who have not yet entered the labor force. This would apply, in particular, to the special regimes benefiting female workers and teachers. As with the remaining changes, political feasibility also hinges on efforts to increase public awareness about the reasons for reform.

Tax Reform

Tax reform should have three goals: lowering the tax burden, simplifying the tax structure, and reducing the earmarking of revenue. Although it is hard to separate the lowering of the tax burden from measures to cut public spending, causation between the two is far from obvious. We believe that capping taxes would help to limit current spending. The tax structure could be simplified by merging various separate taxes and making them more uniform nationally, without the need to devise a whole new regime. In particular, if the mix between indirect and direct taxes is preserved, reform will be more politically palatable, since its impact on revenue will be less uncertain. Along these lines, our set of proposals includes the following:[15]

- *Adopt uniform ICMS (value added tax) legislation and tax brackets for all states,* but with a range, to allow for some discretion by state governments.
- *Establish the principle that the ICMS should be charged where goods are consumed, rather than where they are produced,* with a small tax applied at the origin to encourage compliance.
- *Merge social security contributions (COFINS) with the public employees savings system (PIS-PASEP) into a single "contribution,"* and the *income tax on firms with the Contribuição Social sobre o Lucro Líquido* (a profits tax, with the same base as the corporate income tax) into another single tax.[16]
- *Modify the tax sharing system* to encompass all taxes and contributions instead of just the current three (the income tax, the excise tax on manufactures, and the Contribução sobre Intervenção no Dominio Econômico, or CIDE, a tax on the sale and import of fuels), but without altering total transfers to states and municipalities.
- *Transform the excise tax on manufactures into a tax on a limited range of specific goods* (tobacco, alcoholic beverages, and passenger cars).

15. Some of these reforms have been suggested by Afonso and Varsano (2004).

16. The resulting tax brackets would necessarily be high, but by making the high tax burden explicit they might create a constituency in favor of reducing public sector expenditure.

An alternative, more radical, but also less politically palatable reform would further include the following:

- *Reduce the tax burden* by discontinuing taxes earmarked to expenditure that can be more easily eliminated or transferred to the private sector. Natural candidates are reductions in the FGTS (Fundo de Garantia por Tempo de Serviço) and in the contributions to the SESI, SENAI, and SEBRAE,[17] or even their complete elimination (with the activities these taxes finance being paid for directly by the private sector) and, partially, the PIS-PASEP. Direct and indirect taxes on investment expenditure and import duties should be drastically curtailed in the medium term.
- *Replace a group of indirect taxes* (ICMS, PIS-PASEP, COFINS, CIDE, and others that together presently generate revenue of nearly 16 percent of GDP) with a single value added tax, the proceeds of which would be shared among the federal, state, and municipal governments.
- *Enlarge the DRU* (Desvinculação de Receitas da União) so as to gradually discontinue the majority of existing provisions that earmark revenue for specific expenditure items.

Changes in the tax system are rarely neutral from a distributive viewpoint, and there is much uncertainty as to how each group in society will fare. This tends to strengthen the constituency against almost any proposed measure. Since the states and municipalities are most likely to lose under these reforms, the federal government should compensate them appropriately. The existence of state debts to the federal government both provides a vehicle for such compensation and offers an alternative mechanism for promoting regional policies, which is often cited as a reason not to have a uniform national tax system.[18] Thus one way to weaken the opposition to reform would be to compensate the states' losses by lowering the debt service on their loans from the federal government.

Judicial Reform

The weak protection of property rights in Brazil is a consequence of several factors: judicial activism, breaches of contract by the government, slow enforcement of laws and regulations, extreme instability of the existing rules, and a broad bias against creditors, property owners, and employers. Paramount among these are the last three. The traditional reaction to this dysfunctionality has been to expand the public resources allocated to the judiciary. Yet this has

17. These are entities administered by unions of firms that aim at providing training, recreational, and other services to employees (SESI and SENAI) or to the creation and support of small and medium-size firms (SEBRAE).

18. Another alternative is to create an equalization fund for revenue capable of guaranteeing a lower bound for revenue per capita at the state level. The difference between each state's revenue capacity and the respective minimum tax revenue per capita would be paid out of the fund.

not improved matters, because the demand for judicial services has also grown quite rapidly, sometimes as a consequence of an endogenous rise in procedural complexity. The demands on the judiciary have also increased as a result of democratization and the economic reforms of the 1990s, such as the enactment of a new consumer protection law, with the courts being asked to solve more and more complex cases.

This worsening situation encouraged legislators to adopt more significant changes. In December 2004 a constitutional amendment changed several norms, from rules concerning the selection of judges to the obligation of lower courts to abide by some Supreme Court rulings. Congress also approved a number of infra-constitutional reforms that greatly simplified the civil and procedural codes. These reforms aimed mostly at adopting legal measures to speed up the decision process, largely by reducing the endless opportunities for appeal, notably when involving repetitive legal demands. Other important, if less dramatic, measures adopted in this period focused on improving management practices.

The area that has seen the least progress concerns the change in attitudes toward contract enforcement. Judicial decisions often reflect the judge's political views or intention to use the bench to redistribute income in favor of the less well off. This stance, together with the freedom that judges enjoy to reach very different decisions on similar cases, and their power to paralyze government policies, has turned the judiciary into a key actor in most social and political conflicts. The system has few mechanisms by which to mitigate the impact of these politically motivated decisions on property and contract rights, other than allowing universal appeal to the higher courts, a procedure that itself is often abused and contributes to the increasing volume of litigation observed in Brazil. Moreover, erratic judicial decisions become a fertile ground for corruption, as it becomes harder to identify cases in which factors other than the letter of the law or ideology are at play.

The measures adopted so far have been positive, but further changes are needed. Administratively, there is still a need to improve information systems and case flow, to transfer some responsibilities from the judges to professional managers, and to improve case management. Better management practices will speed up the judicial process and allow the judges to dedicate more time to the merits of each case. Regarding legal reform, there is room for further effort to simplify procedures, including speedier notification of parties, maintaining the continuity of the process when a party shows up after its initiation, a reduction in formalism, and a change in the tendency of judges to decide based on procedural details rather than on the merits of the dispute. A greater reliance on verbal procedures and small claims courts would contribute to these goals.

The more challenging reform is to change the culture of the legal profession—lawyers, prosecutors, and judges—so that they place greater value on the speed, predictability, and impartiality of judicial decisions, which should be independent of the identity or social status of the parties. One way to stimulate such change would be to adopt performance indicators as a criterion in judicial promotion, replacing the present seniority-based system. The use of indicators to assess performance would reveal the differences among judges and tribunals and would encourage them to become more efficient. The National Council of Justice could play a central role in this initiative by developing, calculating, disseminating, and stimulating the use of such indicators. One indicator that could be used to foster greater dispatch in judicial proceedings is the time elapsed between the beginning of each case and the final ruling, with cases appropriately grouped by type. The predictability of a given judge's rulings could be assessed by the percentage of his or her decisions that are confirmed on appeal.

In addition to poor judicial performance, the insecurity of property rights reflects gaps in the quality of legislative output and the often opportunistic and ideological stance of the executive. Measures to strengthen property rights in Brazil must therefore go beyond the judiciary. We propose the following additional core set of measures:

- The executive branch should *exercise greater self-discipline* both in changing the legal norms under its jurisdiction and in appealing to the judiciary to postpone the enforcement of judicial decisions, especially in areas where the law is well established. Implementing this recommendation would require a change in culture and a discontinuance of the use of provisional measures.[19] The executive branch, including the state-owned enterprises, is by far the leading litigator in Brazil. Even more frequently than the private sector, it resorts to the intricacies of Brazil's procedural codes to extend the duration of judicial processes, even when it knows it will eventually lose. This practice not only postpones spending and discourages some plaintiffs from suing in the first place, but also reflects the incentives facing public sector lawyers and managers. In recent years this posture has changed somewhat, but more drastic action is necessary to both reduce caseloads and encourage judges to be less lenient on private parties that follow the same strategy.
- *The quality of legislation needs to be improved.* One of the consequences of party fragmentation and weak party discipline is that Congress has a hard time resolving political disagreements, because it is easy for a minority to block the approval of legislation. To deal with this problem, laws are often written ambiguously and in very general terms to make them palatable to all the different contending groups. This, of course, merely passes the responsibility for settling political conflicts to the courts, which have to clarify what the law has left vague. Even then, except where the Supreme Court enacts a *súmula vinculante* (a ruling

19. Provisional measures are a type of presidential decree through which the government heavily influences the legislative agenda and which becomes law upon being enacted, even before going through legislative debate.

that is expressly binding on lower courts), insecurity tends to prevail even after the higher courts have established jurisprudence on the matter.

- *Judicial awards should be indexed to the SELIC,*[20] including those of the public sector ("*precatórios*"), so as to reduce the financial incentive to delay final court rulings. One reason a party to a lawsuit will often spend resources to get a final ruling postponed, even when the outcome is not in doubt, is to secure in the meantime a return on the resources that it will eventually have to transfer to the other party. Raising the interest rate on contested debts would weaken this incentive and thus encourage the speedier conclusion of cases.
- *The burden of proof should be reversed* with respect to decisions made by the board of regulatory agencies and the competition tribunal (CADE), which would continue to hold through the appeals process until a final ruling is handed down by the judiciary.
- *The training of new judges should be extended and strengthened.* Recent reforms have already improved matters by requiring lawyers to have at least three years of practice before being appointed to the bench. However, more training for new judges on their specific responsibilities would improve the quality and predictability of judicial rulings.
- *The syllabuses of law schools should be extended* to include the study of economics, and to emphasize the importance of justice and a sound judicial system for the proper functioning of a market economy.

Experience suggests that the political disputes surrounding judicial reform tend to be argued only among legal professionals themselves. This is unfortunate, because it leaves the users of the judicial system out of the discussion, even though it is they who have the most to gain from improved performance. Increasing popular awareness of the problem, while building on public discontent about the quality of judicial services and especially the slow pace at which decisions are currently rendered, seems to be the best avenue for change. This process would have to be led by business, academia, and the media, which indeed have shown increasing interest. A crucial element is to shed light on performance indicators and the consequences of poor judicial performance for economic development and social fairness.

Within the legal profession, lawyers as a group tend to be the fiercest opponents to reforms that would streamline the judiciary. Lower court judges also tend to oppose reform, because they tend to be more ideologically committed and fear losing the freedom to decide as they please, even if most judges tend to voluntarily abide by the jurisprudence established by higher courts. The Supreme Court justices, on the other hand, tend to be keener about pushing for reform, because they feel more accountable for the overall performance of the judiciary. They also

20. The SELIC (Sistema Especial de Liquidação e de Custódia) is the policy interest rate set by the Commission on Monetary Policy at the central bank.

recognize that they are spending too much time deciding matters that should be resolved in the lower courts.

Financial Sector Reform

Brazil has a well-developed financial infrastructure but relatively shallow credit and capital markets, which have historically contributed only modestly to spurring long-term growth (Pinheiro and Bonelli, 2007). Finance is not only scarce, notably for small firms and households, but also expensive. And the incentives faced by financial institutions to select and monitor projects are distorted by norms, institutional weaknesses, and high taxes, so that jurisprudence and patterns of judicial behavior play at least as important a role as the law itself in regulating credit disputes. As indicated in table 5, financial sector reform could improve and strengthen three of the growth foundations: equal opportunities, economic and political competition, and macroeconomic stability. Our reform menu includes measures under five main headings:

- *Improve the quality of information available* to lenders and shareholders, so that they can better evaluate the risks they face. This will require a revamping of accounting practices (a process started in early 2008), better registration of assets, and more stringent disclosure rules. Also important is enlarging credit information registries, which have a relatively wide coverage in Brazil, to include positive information about borrowers as well as the negative information they currently carry. Also needed are better auditing, a strengthening of supervision by the central bank and the securities commission, and more stringent and faster sanctions for those who fail to comply. This may require changes in privacy laws and discussions with judges so that they uphold these changes.
- *Strengthen the rights of creditors and minority shareholders.* Currently, few types of guarantees operate well, in the sense of allowing for a quick and low-cost recovery of the loan. For loans extended with these guarantees as collateral, interest rate spreads are well below the average, which shows the potential for measures in this direction to lower the cost of and expand access to credit, in particular for small firms and poor families. Here, too, cooperation of the judiciary is central, particularly so that collateral offered by the poor may actually be accepted as such by financial institutions. Reforms along this line would be especially important for expanding housing credit.
- *Reduce taxes on financial operations and avoid frequent tax changes.* Implementing this reform would require only political will, but attempts at reducing these taxes will likely be resisted by the executive, as it would force a decline in expenditure and may seem to favor the banks. Moreover, taxes on financial transactions are easy to collect and supervise, and this makes them popular with the tax authorities.
- *Promote competition among financial institutions,* and between them and the capital markets, not least because the current consolidation of the banking sector through concentration among the largest banks is likely to further reduce com-

petition among banks, which also hold a dominant position in the capital markets. The competition tribunal and the central bank should receive a clear mandate to improve competition in the banking sector. This should include a more rigorous analysis of mergers and acquisitions as well as pro-active policies of information dissemination and strengthening of guarantees. Another recommended measure is to make it easier for bank clients to switch their accounts between institutions, by lowering taxes on such changes, and by facilitating banks' access to information on the account history of potential clients.

• *Reduce and restructure the role of the public sector banks* and of directed credit in the financial system. These banks are still responsible for a large share of finance, including many transactions that private institutions or the capital markets could easily handle, but for which they cannot compete because of the subsidies received by the public sector banks. Directed credit, on the other hand, operates as a means of cross-subsidizing certain borrowers, but at the cost of higher interest rate spreads. Both instruments have become inefficient and largely unnecessary with the growing sophistication of private financial institutions, the opening of the capital account, and the expansion of capital markets. The main measures called for in this regard are to significantly lower the subsidies transferred though public banks and to increase the transparency with which they are allocated.

Financial sector reform includes certain measures that are part of other reform areas. One of these is strengthening contract enforcement, which is critical to fostering long-term credit in housing and infrastructure, but in which financial sector reform is just part of a larger effort to improve juridical security and regulation. Likewise, high taxes account for a significant part of bank spreads and financial risk, but changes in this area would be dealt with more properly as part of tax reform. Other areas of reform, such as capital market regulation, access to information in credit bureaus, and better mechanisms for foreclosing on collateral in case of default, can be implemented with relatively less political resistance, as experience in recent years has shown.

The area of strongest resistance will be in reforming the financial subsidy mechanisms embedded in directed credit regulations and the workings of the public sector banks. Recipients of subsidies (for example, large farmers and industrial companies), public sector bank employees, and the politicians connected to them will be the main opponents of reform. The most promising strategy seems to be to concentrate on demanding transparency and accountability in the application of such subsidies and seeking the discontinuance of those that play no social or redistributive role. This would reduce the opposition of public bank employees and of some politicians, while attracting the support of the media and society in general.

Education Reform

Two features of the Brazilian labor market stand out in cross-country comparisons, even with countries at similar development levels: high inequality of wages and low average levels of schooling.[21] The two problems are interconnected, and solving both requires expanding the coverage and improving the quality of basic education. This would primarily foster greater equality of opportunities by extending access to a good education to many who now are deprived of it; it would also have positive spillovers on other areas, such as public health and crime prevention. The average educational attainment of the population aged 15 and over has improved since the 1980s, from 3.1 to 4.9 years, after remaining nearly unchanged in the preceding twenty years. Yet as similar countries, such as Argentina and Chile, have made even greater progress, the gap between them and Brazil has widened.

In recent years several reforms have sought to accelerate the rise in average educational attainment. On the supply side, the FUNDEF (Fundo Nacional para o Desenvolvimento do Ensino Fundamental e Valorização do Magistério) was established to increase the resources allocated to primary education, especially in the country's poorest areas, with noticeably positive effects. Demand, meanwhile, was fostered through the Bolsa Escola program, created in 2001, which pays poor families a stipend to send up to three children aged 6 to 15 years to school. Each child must achieve at least an 85 percent attendance record. Also during this period, several mechanisms were implemented to measure educational performance and supply valuable information for future planning and other focused initiatives.

In the first term of the current president, Luiz Inácio "Lula" da Silva, the policy emphasis shifted from basic to higher education. Leading initiatives included the Programa Universidade para Todos (University for All), which aims at facilitating college entry conditions for poor students, and a proposed reform that, among other provisions, would have reserved 50 percent of vacancies in federal universities to students who attended public secondary schools. In December 2006 the government also created the Fundo de Manutenção e Desenvolvimento da Educação Básica (FUNDEB), which extended the FUNDEF program to preprimary and secondary education.

These reforms have yielded significant gains, but the education system still faces important challenges, in particular the need to raise equity and efficiency and improve learning. The quality of schooling varies considerably across Brazil. Children attending some public schools lack the basic educational opportunities available in other parts of the country, or even in better-endowed schools within their own jurisdictions. Almost everywhere, repetition and dropout rates remain exceedingly high: only 54 percent of students finish all eight years of primary education, taking an average of ten years to do so. The corresponding figures in the North and the Northeast regions are worse: 39 percent and eleven years.

21. This section is based on Ferreira and Veloso (2007).

Even those who complete primary school by no means always receive a good education. Standardized test results for 2001 showed that fewer than half of fourth-graders performed at level 3 on a mathematics proficiency scale of 1 to 10, the same percentage as in 1995. In this context, the recent shift in focus from basic to higher education is an unwelcome development.

Our proposals for education reform seek to address the problems just summarized. Their main thrust is to enhance the coverage and quality of basic education, while reducing subsidies to higher education by shifting from universal free tuition at public universities to a combination of paid tuition and student loans. As already noted, an expanded and improved basic education system would contribute to strengthening the equality of opportunities foundation. A shift to tuition-based financing of higher education would improve the nation's fiscal accounts and so strengthen the macroeconomic stability foundation. The following specific actions are proposed:

- *Achieve universal coverage from pre-school through upper secondary school* by fully implementing the FUNDEB and including families with students aged 16 through 19 in the Bolsa Família program. Indeed, benefits should rise as a function of age, to compensate for the opportunity cost of students staying out of the labor market. Particularly important is expanding coverage and improving the quality of early childhood care, including preschool education, in coordination with other initiatives directed at young children. Evidence shows that investments in early childhood lead to healthier cognitive and emotional development in the early years, which translates into higher overall educational attainment (and hence a more competitive labor force), greater internal efficiency of the formal education system (reduced repetition and dropout rates), and better physical and mental health. All of these, in turn, make students more responsible citizens and better parents as adults, and may produce externalities through role modeling for siblings, peers, and others.
- *Improve the quality of primary education.* Specific proposals include careful periodic evaluation of schools and teachers, possibly with the introduction of an accreditation system, and increased competition among schools. Quasi-market mechanisms, from concessions schools to vouchers, should be introduced at the state and municipal levels, along with better governance structures.
- *Increase efficiency and equity in university education.* Competition among universities should be increased. Facilities should be used more intensively, for example by increasing enrollment in night courses. Public universities should charge tuition and fees, and the federal program of scholarships should be expanded, especially for poor students.

The main advantage of the first proposal is also its main weakness: because it involves allocating more resources to the sector, none of the main interest groups opposes it; on the other hand, its implementation would require the transfer of funds from other activities, which means fighting an uphill battle with mayors and governors, who often argue that too much of their resources are already allocated to education. Yet if continued economic growth produces a parallel rise in tax revenue, even the existing provisions, together with a projected decline in primary enrollment, should allow for universalization at least of preschool education in the medium term. This, in turn, should raise the efficiency of the primary schools, fostering the universalization of secondary education. Evidence suggests that Brazil's high dropout rates in secondary education owe less to the opportunity cost of staying out of the labor market than to learning difficulties and lack of motivation.

The big problem with improving primary education is that its current low quality appears to result mainly from administrative problems, so that merely allocating more resources is unlikely by itself to produce significant improvement (Menezes-Filho, 2003). However, the agenda outlined above is strongly opposed by public school teachers' unions. These unions share a culture of victimization that portrays the low quality of education as due primarily to teachers being paid low wages and working in poor conditions. In fact, although salaries in the public schools are not very high, they are higher than the average salary paid by the private sector (Barbosa-Filho et al., 2008) and are not low by international standards as a share of GDP per capita (Barbosa-Filho and Pessoa, 2008). Furthermore, this culture of teacher victimization has caused administration to be geared to teachers' needs rather than focused on the students. High rates of teacher absenteeism are tolerated (in Sao Paulo state, 13 percent of teachers are absent on a given day), and teachers move freely between workplaces, even in the middle of the school year, impeding rational management.

Fortunately, the public school system is highly decentralized—each state and municipality has its own system—which reduces the unions' power, facilitates support from the federal government, and creates scope for piecewise, incremental change: reform in one jurisdiction can create a constituency for reform in others. Alternative management practices are also possible, including public-private partnerships and the hiring of private firms to provide services.

The main potential ally of reform will be civil society; with its support, governors and mayors will come along. Brazilian society in general has yet to understand that the problem is much more complex than simply a lack of resources, but there are strong signs that this process has begun. Here the main strategy is to provide greater transparency about the problems, to make them more understandable to parents and society at large; in particular, the culture of seeing the teachers as the victims, rather than the children who are deprived of a good education, must be changed. For this it will be critical to enlist the media as an ally.

Finally, the reform of higher education will not be easy: there is no popular support for charging fees at public universities. However, we believe that as primary and secondary education expand and improve, demand for higher education will grow exponentially, making competition for admission to the public universities even more intense. This will raise public awareness and force a discussion about whether a fortunate subset of the population should continue to attend university for free. Either there will be a move to charge fees and so reduce demand, or entry barriers will have to be lowered, resulting in a sharp reduction in the teacher-student ratio, as has occurred, for example, in Argentina's public universities. The sacrifice in quality that the latter would entail may persuade the public to accept the concept that public universities should charge reasonable tuitions for the education they provide.

Regulatory Reform

Many important economic sectors, including telecommunications, electric power, railways, ports, roads, and water and sanitation, experienced not only extensive privatization but also substantial regulatory reform in the 1990s, dismantling an institutional framework that in some cases had been in place for over half a century. Although the reform process evolved independently in each of the various sectors, the diagnosis that motivated it and the principles underscoring the new regulatory model were essentially the same. In particular, bringing private investors in was seen as the best way to raise investment without sacrificing fiscal discipline; but for that to occur, the regulatory framework had to be revamped.

Following international practice, regulatory reform in the area of infrastructure involved the separation of commercial, regulatory, and policy activities. The state-owned enterprises continued to engage in commercial activities but were restructured, often through privatization. As the new regulatory model stressed the introduction of competition, privatization was often accompanied by the vertical or horizontal breakup of the enterprise and the dismantling of barriers to new private entry. To reduce the risk of expropriation, new regulatory agencies, with relative financial and administrative independence from the government, were entrusted with the responsibility of fixing rates, subject to rules set out in the concession contracts and the general principle of "financial and economic equilibrium" established in the Concessions Law. Policy responsibilities were ascribed to the appropriate sector ministry.

Although the evidence suggests that regulatory reform has succeeded in fostering productivity growth and improving the fiscal accounts, much less has been accomplished by way of raising investment. In particular, the new private owners invested in rehabilitation and modernization of facilities, but not as much was invested in greenfield projects, with the result that expansion of capacity was rather limited. The telecommunications sector is apparently the only exception to this rule, in the sense that not only did capacity increase significantly, but this was achieved while the state successfully transferred all commercial activities to the private sector.

The regulatory reform agenda detailed below draws on the successful case of the telecommunications sector. Its starting point is the view that since the state continues to lack the resources to invest directly in infrastructure, it needs to establish a regulatory framework that encourages private investors to do so, allowing them to operate at a reasonable level of risk. Thus our proposals aim at completing the transition initiated in the 1990s, focusing largely on the strengthening of regulatory agencies in infrastructure, but recognizing that these share common problems with other, similar institutions. Thus, the antitrust agencies and, to some extent, the central bank also need strengthening. Specifically, we propose the following:

- *Expand the number of board members in regulatory agencies* to seven, with each member serving a seven-year term. (Every year the president would appoint one member to each board, to take office the following year.) This would replace the present rule—five members serving for five years each—which has proved insufficient to insulate the agencies from the political cycle. Board members would continue to be approved by the legislature. The law should also establish provisions for replacing board members in case of vacancy, so that vacancies do not last indefinitely when the executive and Congress cannot agree. This has happened repeatedly in the recent past, leaving the agencies with too few board members to make formal decisions.
- *A performance contract* should be signed between the agency and the appropriate ministry, fixing performance targets and mechanisms for control and follow-up. This will require the objectives of the agencies to be clearly stated. The performance contract should respect agencies' autonomy to decide on regulatory matters, while obliging them to abide by transparency and administrative norms common to other public institutions.
- *Set fixed terms for central bank directors,* which should not coincide with the term of the president of the republic.
- *Change the law to make mergers conditional on ex ante approval by the competition tribunal.*
- *Complete the regulatory framework* in the areas of transportation (for example, the ports), electric power, and especially sanitation. Conflicts of interest and the overlapping of responsibilities should be carefully disentangled so as to expand the network operated by private investors.
- *In the electric power sector, move toward privatization* as a long-term strategy, while in the medium run fostering competition and improving the quality of management and the mechanisms for supervision and control, limiting political interference, and strengthening the enterprises' commercial ethos.
- *Streamline the operations of the environmental protection agencies,* including speeding up the licensing process. Strengthen cooperation among these agencies, the judiciary, and prosecutors, so as to reduce judicial insecurity and risk over environmental licenses. Improve coordination among the federal, state, and municipal environmental protection agencies.
- *Strengthen coordination among the regulatory agencies,* especially those dealing with the energy sector (the electric power, oil, and water agencies). Similarly,

foster cooperation between the regulatory agencies and the consumer protection and antitrust institutions.

• *Develop financial instruments and secondary markets* capable of supplying more financial resources and means of managing the risks of infrastructure projects.

The main obstacles to regulatory reform are neither technical nor political, but ideological. Some of the above proposals will require further refinement (for example, those concerning financial instruments and the design of performance contracts), but the complexities are few. Interest groups will oppose the privatization of the electric power companies and complicate the reaching of a compromise between state and municipal governments in water and sanitation, but the obstacles are not insurmountable. The key challenge, then, is to tilt the balance between pragmatism and ideology to favor the former. This may happen as infrastructure bottlenecks become more critical in the near future. In particular, as economic conditions improve and the cost of capital continues to decline, private operators will be willing to charge lower usage fees, weakening one of the areas of resistance.

Political Reform

As argued above, one cannot fully understand the relationship between reform and economic growth in Brazil over the last two decades without taking the country's politics and political institutions into account. In particular, two of the defining features of Brazil's political system—the reliance on proportional representation and on open lists, rather than majority rule (*voto majoritário*) and closed lists, in the election of Congress has favored the rapid rise in current public expenditure since the return to democracy. Controlling this spending is crucial to improving the quality of macroeconomic policy and thus to strengthening the macroeconomic stability foundation. Therefore one of the priorities of reform must be to bring about change in these institutions.

Brazil is not alone in experiencing high public expenditure under a proportional representation system: the political science literature reports a robust relationship between the two in countries around the world. Persson and Tabellini (2003) show that the ratio of public expenditure to GDP tends to be 5 percent higher, and social security expenditure 3 percent higher, in democracies that rely on proportional representation than in those that do not.

What accounts for this relationship? Persson, Roland, and Tabellini (2003) develop a theoretical model that suggests that higher public spending is a consequence of the greater party fragmentation induced by proportional representation. This also makes intuitive sense. If the executive is elected without a strong legislative majority, it will have to build legislative support for its initiatives issue by issue, constantly assembling new coalitions, if it is to accomplish anything. The more fragmented the legislature, the harder the executive will have to work to build these coalitions, and the more it will have to bargain. Some parties will already be inclined to support a given measure, but others will be at best indifferent; to win their support, the executive will have to engage in "logrolling," giving these parties concessions on issues of more importance to them in exchange for their support on the issue at hand. The cost of these concessions will, of course, be additional to the cost of the executive's own initiative, so that a successful bargain will increase public expenditure above what it would be if logrolling were unnecessary, and obviously it will exceed what it would be if the initiative failed for lack of support. Persson et al. (2003) show that legislative fragmentation (which can be measured in much the same way as concentration in an industry, using Herfindahl's index) is important empirically in explaining the level of public expenditure: they find no direct relationship between the system of government (presidential or parliamentary) and the electoral rule (majoritarian or proportional), on the one hand, and the level of public expenditure, on the other, once they control for the degree of party fragmentation in the lower house of the legislature.

Political institutions also matter for the level of corruption in government and for the ability of the government to take steps to control corruption; anticorruption reforms, in turn, should contribute to strengthening several of the foundations for growth (table 5). Here, however, the theoretical results are less robust. Persson and Tabellini's analysis would suggest that the best electoral system from the standpoint of minimizing corruption is a proportional representation system with open lists (because it is easier to challenge incumbents) and large electoral districts. Yet this is precisely the system that Brazil already has, and Brazil, at least according to opinion polls and the frequent news reports of political scandal, is clearly a long way from minimizing corruption. Moreover, Italy also had the same system until 1994 yet was considered to have the most corrupt politics in the developed world.

What Persson and Tabellini's analysis seems to overlook is the fact that proportional systems with open lists and large districts tend to have strong *intraparty* competition, which leads to expensive political campaigns. The cost of financing campaigns in turn makes politicians more dependent on wealthy donors, with corruption the result as the winning politicians reward their contributors with political favors once in office (Golden and Chang, 2001; Chang, 2005). Chang and Golden (2006) also report evidence showing that corruption is greater (and increasing) in larger districts (more than fifteen representatives) that use open rather than closed lists; in smaller districts, however, corruption tends to be lower with open lists. Shugart, Valdini, and Suominen (2005) corroborate this finding, showing that in larger districts, candidates have a greater interest in differentiating themselves from other candidates under an open-list than under a closed-list system, and that they do this through pork-barrel spending and corrupt practices. Finally, Tavits (2007) argues that party fragmentation reduces the clarity of responsibility for political outcomes, and that where responsibility is less clear, corruption will be greater. Thus political fragmentation may be a culprit both in Brazil's excessive spending growth and in its level of corruption.

What do these results imply in terms of recommendations for political reform in Brazil? Although the results of Persson and his coauthors indicate that a shift to majority voting might lead to reduced expenditure, this would be a fairly radical change for Brazil. It also appears unnecessary, since the above discussion suggests that the potentially adverse outcomes of proportional representation can be improved simply by changing the parameters of the proportional system. In particular, improvement in government spending decisions might be achievable through a reform that aims at lowering party fragmentation, especially in Congress, so that elected administrations can form the base of support necessary to accomplish their objectives with fewer parties.

A particularly important parameter in determining the degree of party fragmentation is the size of the electoral district. Unless regional parties are strong (Brazilian law makes them almost impossible to form), a minor party will have greater difficulty winning a seat in any given district, the less seats are contested. In Brazil seats in the lower house of Congress (the Câmara dos Deputados) are allotted by state, with the number of seats proportional to its population. But this number is truncated from above and below, with a minimum of eight seats guaranteed to each of the smallest states and a maximum of seventy seats allowed for São Paulo, the most populous state. Even this wide range in number of seats per state (8.75 to 1) is far less than the actual differences in state population: at 41 million in 2006, São Paulo has 100 times the population of the smallest state, Roraima. Thus each legislator from São Paulo represents about twelve times as many voters as a legislator from Roraima.

The studies by Chang and Golden (2006) and by Shugart et al. (2005) indicate that the performance of open-list systems with respect to corruption is not unfavorable in sufficiently small districts. Thus we propose the following reform:

- Divide the states that currently have more than nine representatives in the Câmara dos Deputados into smaller districts (for purposes of congressional voting only) with a minimum of five representatives each. Keep the remaining institutions (proportional representation, open lists, and so forth) unchanged.

This reform would reduce the degree of party fragmentation substantially and thus should have beneficial impacts on public spending. Additionally, the reduction in the number of seats per district in the larger states would reduce intraparty competition without too great an increase in entry barriers. The studies cited above suggest that under this reform, corruption would be reduced as well; measures to reform campaign financing could also help in this regard (Samuels, 2006, pp. 133–53). As a side benefit, this reform would also strengthen the representation of metropolitan areas (Monroe and Rose, 2002). Although critical, this reform should be implemented incrementally, because such changes inevitably generate uncertainty, and it is difficult to predict how the population would react to this change and to other changes in the functioning of institutions generally.

Final Remarks

Brazil has implemented many reforms since the 1980s, without, however, achieving the expected increase in economic growth. These reforms caused a significant rise in total factor productivity growth and made growth more inclusive, but they failed to boost investment or accelerate the lackluster pace of human capital accumulation. Performance in these areas was particularly poor compared with most other countries at similar levels of development. We explain this outcome by the fact that many of the reforms were only partly implemented or were sidetracked into pursuing other objectives, while others strengthened one growth foundation but weakened others. More important, even as Brazil pursued market-oriented reforms in many areas, it also engaged in what we have termed "anti-market reforms": changes in norms, resource allocation, and policies that discouraged investment and productivity growth and weakened the links between the market-oriented reforms and growth. These anti-market reforms severely undermined the impact of the pro-market reforms on growth.

We view the *expansion in public expenditure and the change in its composition*—with a decline in public investment and a rise in current outlays—as the most important of these anti-market reforms. Rising public expenditure was initially financed by rising inflation, then by public sector borrowing, and most recently by expanding tax revenue, in all cases with adverse consequences for macroeconomic stability and with negative spillovers on capital accumulation and productivity growth. The 1988 constitution, which produced a mix of market-oriented and anti-market reforms, was a landmark in this process. Yet the policies embedded in the constitution did not constitute an isolated event, but only the most noteworthy of a series of policy initiatives that continued through the following two decades in the same vein.

This indicates that these policy decisions were endogenous to the country's social and political institutions. In particular, we attribute the problem of poor selection of reforms to the interplay between democratization, itself a major reform, and Brazil's highly unequal income distribution. Democratization allowed voters to express their preference for a large, protective state. The repeated expansion of current public expenditure, notably transfers, is also consistent with a key feature of Brazil's political system, namely, political party fragmentation, notably in the government's congressional support base. Problems of information asymmetry further explain the preference for a large state, as characterized by the fact that the regressive nature of the tax system is less transparent than the progressive character of the more advertised social programs. Voters can assess relatively easily how public funds are spent but find it more difficult to recognize the incidence of indirect taxes.

Looking forward, *macroeconomic stability* is the foundation for growth whose weakness is the most critical. The weakness of this pillar results from an unbalanced policy mix, which overburdens monetary policy and requires a rising tax burden and a low rate of public investment to ensure public solvency. It is crucial that public saving be increased. Thus the most critical reforms are those that reduce current expenditure. We have argued that pension reform is the best way to achieve this goal, but it is extremely unpopular in Brazil: barring a major crisis, we do not see what could make a wholesale reform in this area viable in the short term. Thus, as with other reforms, we suggest that piecewise, incremental reform be adopted. This last point underlines our conclusion that significant curbs on current public spending will have to wait for a change in the political environment, not only to make pension reform more viable, but also because Brazilian political institutions favor party fragmentation, which in turn tends to boost current public spending. Thus, to bring about a political environment conducive to lowering public expenditure, Brazil should pursue a reduction in party fragmentation, particularly concerning the number of parties represented in Congress, so that governments can form majorities with fewer participating parties. We see an expansion in the size of electoral districts as the most promising way to achieve that goal.

The insecurity of *property rights* comes second in our list of weakest foundations. The problem in this case stems from a combination of the poor quality of the laws produced by Congress, an executive that exploits judicial delay as a fiscal policy instrument while underestimating the importance of stable legal norms, and a judiciary that suffers under a procedural code that, despite recent progress, remains cumbersome, and from judicial activism and inefficiencies in its own administrative practices. More broadly, we have identified a national culture that favors pursuing "social justice" over judicial consistency, and which needs to be changed if the rule of law is to be significantly strengthened.

To conclude, we stress three lessons with respect to the challenge of advancing growth-enhancing but unpopular market-oriented reforms while at the same time preventing or even undoing popular anti-market reforms. Needless to say, political will is a necessary condition for success.

First, it is crucial to be pragmatic and avoid risking all one's political capital on a politically unfeasible reform, no matter how sensible it may be from an economic standpoint. Likewise, it makes more sense to pursue piecewise, seemingly uncoordinated reforms than to get bogged down promoting an all-encompassing but unfeasible reform package. The recommendation, then, is to stress those reforms that are politically less sensitive, such as tax reform, or that allow the losers from reform to be at least partly compensated or protected through transition or grandfather clauses. As an example, new rules for pension reform could be designed to apply only to workers entering the labor market after the reform. Nonetheless, it is important to have and follow a general master plan to help ensure consistency.

Second, although Brazil's skewed income distribution is one leading explanation of voters' preferences for big government, another is the fact that voters have an imperfect perception of the consequences of their policy choices. Here a good example is the small redistributive impact of fiscal policy reform. By increasing transparency about the diagnosis that informs the reform proposals, one can likely build a constituency for at least some reforms, without having to wait for the distribution of income to improve—something that will not happen quickly in any case. This highlights the importance of further academic work and a close link with the media, so as to change perceptions about how the majority of voters are affected by current policy choices.

Third, in the past when Brazil has faced severe crises, notably foreign exchange crises, unpopular reforms were approved as necessary evils that helped bring about a greater good. To seize these opportunities, should they recur in the future, it is crucial to have well-developed reform proposals ready on the shelf, well known to the political leadership, that can be rapidly approved. Likewise, some of the reforms discussed here, such as regulatory reform, face a kind of ideological opposition that may wane significantly in the event of a political transition, such as the election of a more centrist president. In that event, too, it would help to have well-developed reform projects that could be brought swiftly before the consideration of legislators.

References

Afonso, J. R., and R. Varsano. 2004. "Reforma Tributária: Sonhos e Frustrações." In F. Giambiagi, J. G. Reis, and A. Urani, eds., *Reformas no Brasil: Balanço e Agenda.* Rio de Janeiro: Editora Nova Fronteira.

Barbosa Filho, F. de H., and S. de A. Pessôa. 2008. "A Carreira de Professor Estadual no Brasil: Os Casos de São Paulo e Rio Grande do Sul." Rio de Janeiro: Fundação Getúlio Vargas.

Barbosa Filho, F. de H., L. A. Afonso, and S. de A. Pessôa. 2008. "Um Estudo Sobre os Diferenciais de Remuneração Entre os Professores das Redes Pública e Privada de Ensino." Rio de Janeiro: Fundação Getúlio Vargas.

Barro, Robert J. 1990. "Government Spending in a Simple Model of Endogenous Growth." *Journal of Political Economy* 98, no. 5, pt. 2: S103–25.

Barros, R. P. de, and R. Mendonça. 1995. "A Evolução do Bem-Estar, Pobreza e Desigualdade no Brasil ao longo das Últimas Três Décadas—1960/1990." *Pesquisa e Planejamento Econômico* 25, no. 1: 115–63.

Barros, R. P. de, M. de Carvalho, S. Franco, and R. Mendonça. 2007. "Determinantes Imediatos da Queda da Desigualdade de Renda Brasileira." In Ricardo Paes de Barros, Miguel Nathan Foguel, and Gabriel Ulyssea, eds., *Desigualdade de Renda no Brasil: Uma Análise da Queda Recente.* Rio de Janeiro: Instituto de Pesquisa Econômica Aplicada. www.ipea.gov.br/082/08201004.jsp?ttCD_CHAVE=2783.

Bénabou, R. 2006. "Inequality, Technology and the Social Contract." In P. Aghion and S. Durlauf, eds., *Handbook of Economic Growth.* Amsterdam: Elsevier, North-Holland.

Carvalho Filho, I., and M. Chamon. 2006. "The Myth of Post-Reform Income Stagnation in Brazil." IMF Working Paper 06/275. Washington: International Monetary Fund, Western Hemisphere and Research Departments (December).

Chang, Eric C. C. 2005. "Electoral Incentives for Political Corruption under Open-List Proportional Representation." *Journal of Politics* 67, no. 3: 716–30.

Chang, Eric C. C., and Miriam A. Golden. 2006. "Electoral Systems, District Magnitude and Corruption." *British Journal of Political Science* 37: 115–37.

Ferreira, S., and F. Veloso. 2006. "A Reforma da Educação." In A. C. Pinheiro and F. Giambiagi, eds., *Rompendo o Marasmo: A Retomada do Desenvolvimento no Brasil.* Rio de Janeiro: Campus/Elsevier.

Ferreira, F., P. Leite, and M. Ravallion. 2007. "Poverty Reduction without Economic Growth? Explaining Brazil's Poverty Dynamics, 1985–2004." Policy Research Working Paper 4431. Washington: World Bank (December).

Giambiagi, F. 2006. *Reforma da Previdência: O Encontro Marcado.* Rio de Janeiro: Campus/Elsevier.

Giavazzi, F., and G. Tabellini. 2005. "Economic and Political Liberalization." *Journal of Monetary Economics* 52: 1297–1330.

Golden, Miriam A., and Eric C. C. Chang. 2001. "Competitive Corruption: Factional Conflict and Political Malfeasance in Postwar Italian Christian Democracy." *World Politics* 53: 588–622.

Kakwani, N., M. Neri, and H. H. Son. 2006. "Linkages between Pro-Poor Growth and the Labor Market." In *Anais do XXXV Encontro Nacional de Economia.* Niterói, Brazil: Associação Nacional dos Centros de Pósgraduação em Economia. www.anpec.org.br/encontro2007/artigos/A07A096.pdf.

Mello, L., and E. Tiongson. 2006. "Income Inequality and Redistributive Government Spending." *Public Finance Review* 34, no. 3: 282–305.

Menezes-Filho, N. 2003. "Trade Liberalization and Inequality in Brazil." Paper presented at the seminar Brazil: Risks and Opportunities of Integration into the World Economy, São Paulo, November 4.

Monroe, Burt L., and Amanda G. Rose. 2002. "Electoral System and Unimagined Consequences: Partisan Effect of District Proportional Rule." *American Journal of Political Science* 46, no. 1: 67–89.

Persson, T., and G. Tabellini. 2003. *The Economic Effects of Constitutions.* MIT Press.

Persson, Torsten, Gérard Roland, and Guido Tabellini. 2003. "How Do Electoral Rules Shape Party Structures, Government Coalitions, and Economic Policies?" Working Paper 10176. Cambridge, Mass.: National Bureau of Economic Research.

Pinheiro, A. C., and R. Bonelli. 2007. "Financial Development, Growth and Equity in Brazil." In R. Ffrench-Davis and J. L. Machinea, eds., *Economic Growth with Equity—Challenges for Latin America.* Houndmills, Basingstoke, U.K.: Palgrave-Macmillan.

Pinheiro, A. C., R. Bonelli, and B. R. Schneider. 2007. "Pragmatism and Market Reforms in Brazil." In J. M. Fanelli, ed., *Understanding Market Reforms in Latin America.* Houndmills, Basingstoke, U.K.: Palgrave-Macmillan.

Pinheiro, A. C., and F. Giambiagi. 2006. *Rompendo o Marasmo: A Retomada do Desenvolvimento no Brasil.* Rio de Janeiro: Campus/Elsevier.

Samuels, D. 2006. *Financiamento de Campanhas no Brasil e Propostas de Reformas—Reforma Política, Lições da História Recente.* Rio de Janeiro: Editora FGV.

Shugart, Matthew Soberg, Melody Ellis Valdini, and Kati Suominen. 2005. "Looking for Locals: Voter Information Demands and Personal Vote-Earning Attributes of Legislators under Proportional Representation." *American Journal of Political Science* 49, no. 2: 437–49.

Tafner, P., and F. Giambiagi, eds. 2007, *Previdência no Brasil–Debates, Dilemas e Escolhas.* Rio de Janeiro: Instituto de Pesquisa Econômica Aplicada.

Tavits, Margit. 2007. "Clarity of Responsibility and Corruption." *American Journal of Political Science* 51, no. 1: 218–29.