CHAPTER 7

Policies on Assets and Services

The third part of this report turns to the question of what can be done in specific policy-related arenas to reduce inequality in Latin America. How can public action lead to greater equity with a minimal cost in terms of efficiency and, in turn, result in faster and more effective poverty reduction? In the next three chapters, the authors combine a discussion of practical choices for public action with recognition of the centrality of the broader social and political processes that were discussed in Chapter 5.

There are multiple, complex areas for action, since inequalities are linked to almost all aspects of economic and social policy. There is no way that a report of this length can do justice to the full spectrum of issues. The authors therefore seek to cover a broad range of concerns, in the spirit of providing an overview of some of the major policy questions. Although this pursuit is not comprehensive—and it certainly cannot go into the depth that any particular area warrants—the aim here is to draw out key themes and contribute both to debate and more in-depth analysis.

Possible areas for public action are organized into three categories. This chapter focuses on influences on the distribution of assets (an issue closely linked to service provision), with emphasis on education; property rights, land, and housing; and the provision of infrastructure. Chapter 8 considers policies that affect how economic institutions function, moving from the micro to the macro level. Evidence on the overall effect of market-oriented policies and on the particular role of labor markets is considered, followed by consideration of the question of macro-level policies and shocks. Chapter 9 then looks at factors that influence the secondary distribution of income (that is, taxes and transfers), with a particular focus on measures that can help manage risk and, specifically, conditional cash transfer instruments. An important consideration when examining policy options is the assessment of tradeoffs, particularly between distributional and efficiency goals. Whenever feasible, this question is discussed in general terms, although country-specific analysis would be required to develop a more definitive assessment.

In Part II of this report, it was argued that the interaction between the distribution of assets and institutions makes the most fundamental difference with regard to both the distribution of well-being in a society and the dynamics of change. Unequal assets and unequal institutions lower the well-being of poorer groups and are associated with political structures and sociocultural processes that lead to the perpetuation of inequality. This chapter focuses on how a more equal distribution of assets can be achieved in Latin America in three areas: education; property rights,
land, and housing; and infrastructure. Although by no means exhaustive, this chapter provides enough material to highlight some of the major themes and potential areas for public action.

### 7.1. Education

Education lies at the center of the perpetuation of inequality, both reflecting and influencing unequal economic conditions, power, and social status. Education also has the potential to reduce inequalities. This perspective is central to thinking in many disciplines, from economists who view more equal education as a means of achieving more equal labor income to social scientists who saw new forms of education as essential to changing the aspirations, outlook, and behaviors of subordinate groups.\(^1\)

The interactions between education and the various dimensions of inequality are complex. The discussion in Chapter 6 indicated that a relatively equal distribution of education across the population is no guarantee of equal income. By international standards, Latin America has on average middling levels of education inequality but high levels of income inequality. Some societies, such as Chile, have relatively extensive and equal education by Latin American standards (that is, an average of ten years of education and a Gini coefficient of 24 for 25–65 year-olds in 2000), but also high income inequality. Even broad-based and high quality education systems, such as those in France, can deeply reflect and perpetuate patterns of social difference, as documented in the classic work of French sociologist Pierre Bourdieu (1984).

The embedded and complex relationship between education and society should inspire caution when confronted with the simple view that more education can solve high levels of inequality with regard to income, power, and social status. However, this is not to say that education does not matter. It most certainly does; education has been central to every case of a successful and equal development process, in both economic and political terms. This fact applies to the U.S. experience in the 19th and 20th centuries, the European experience (most notably during Scandinavian transitions), the Japanese process of development after the Meiji restoration, and in almost all the East Asian success stories, from the Republic of Korea to Vietnam.

Moreover, the importance of education appears to be increasing as global integration intensifies and the transition to urban, industrial, and service-based societies takes hold. Education is quickly becoming the most important economic asset for the majority of the population, a factor that only reinforces the need to expand access to quality education. Most countries have made significant progress on basic education, placing priority on expanding secondary schooling, democratizing college education, and strengthening quality throughout the system (de Ferranti and others 2003). As noted in Chapter 2, many countries have experienced increases in the premium placed on a college education. Yet most of Latin America’s college systems are still primarily the domain of the children of elites, who often benefit from sizeable subsidies. Democratizing tertiary education, and increasing access to bright but poorer kids, is important for reasons related to both efficiency and equity.

The following pages examine the potential for public action to effect a large and equalizing expansion of education that can also support greater equality in other dimensions. Most notable
among such aspects is income, for which there is much more information on quantitative relationships.

Figure 7.1 represents some of the complexities of these processes. It is useful to draw a distinction between first-stage reforms that are primarily about expanding access to basic education via increased schools and teachers, and second-stage reforms that focus on both equitable access throughout the system and the achievement of high levels of quality. The latter are typically more complex politically and institutionally, thus raising questions about uncertainties in the chain of changes. Most Latin American countries have made the push toward universal basic education, although some have not completed that process. All are engaged to varying degrees in second-stage reforms.

The primary focus here is on service delivery and use as the major levers that states and social groups have to effect change in educational attainment. The first issue considered is the recent dynamics of educational expansion. Then the potential impact of a future large-scale expansion on income inequality is examined through structured comparisons between Latin America and more developed regions. With this foundation in mind, the central challenge of what can be done to improve educational equality is discussed.

**FIGURE 7.1.**
The long chain of interactions from unequal schooling to more equal outcomes

Recent dynamics of educational expansion

How fast have societies in Latin America pursued an educational transition? Education dynamics of the recent past suggest that Latin American countries show some signs of breaking with a political and social history of education-based mechanisms for exclusion. There is a great variety of experiences, and all countries in Latin America have launched significant educational expansions in the past decades. However, last year’s World Bank report on education in the region (de Ferranti and others 2003) emphasized that on average education expanded more
slowly in the region than in other regions of the world, especially East Asia and the European periphery.

A picture of past expansions can be obtained by using the data assembled for this report to look at how educational attainment varies across cohorts. The current education of the 51–60 year-old cohort reflects educational efforts launched 40–50 years ago. Low levels of average education in a country, or within a cohort, are typically associated with high inequality of education. (Actual types of inequalities are discussed below).

The patterns in Latin America can be roughly classified into four typical past processes, as illustrated for four selected countries in Figure 7.2. In the first group are countries with relatively high levels of educational provisioning in the middle of the 20th century, followed by subsequent expansion, especially the Southern Cone countries. This group ended up with average years of schooling comparable to Spain and Malaysia in 2000. Second, there is a group that started with a lower level of education, but had a major expansion in recent decades. This includes some countries with a high concentration of indigenous people, including Mexico, Peru, Ecuador, and Bolivia. It is noteworthy that at least in Bolivia, Mexico, and Peru, the 20th century was in part characterized by episodes of major social mobilization or revolution with socially inclusive aims, such as strong societal pressures to expand education. Third, Brazil stands out as a country with a dismal historical legacy but a much more recent acceleration in provisioning. Fourth, there is a set of countries in which educational provisioning has continued to be very low despite recent progress; this is especially the case in the poor Central American societies of Guatemala, Honduras, and Nicaragua (as well as, undoubtedly, Haiti).

The evolution of educational inequality can be illustrated by comparing educational attainment for different categories of the same cohort (see Table A.23). Doing so confirms continued large inequalities, especially in those countries where overall progress has been relatively weak or late. Table 7.1 compares Brazil and Jamaica. There has been important progress in Brazil in the recent past, but the differences between the bottom and top income quintiles remain very large: 7.1 years in 1990 and 6.9 years in 2000 for 21–30 year-olds. Of equal concern is the fact that there is also a large gap in the years of education attained by 10–20 year-olds (many of whom are still in school), which barely changed (from 3.7 to 3.6 years) between 1990 and 2000.

In contrast, Jamaica has continued to have a remarkably equal educational profile: 21–30 year-olds in all income quintiles had more than nine years of education in both 1990 and 2000, with a top-to-bottom quintile difference of only one year. (This is partly because of unusually low tertiary education enrollments in Jamaica at all income levels.) In terms of incomes, Jamaica is more equal than Brazil but is still unequal by international standards, with a Gini coefficient of 49 in 2000. The patterns and sources of income difference must therefore work in domains other than acquisition of years of education.

FIGURE 7.2.
Past education dynamics in selected countries, in years of schooling of men and women by age cohort
Source: Authors’ calculations based on household surveys.

**TABLE 7.1.**
Years of education by income quintile for Brazil and Jamaica for 21–30 year-olds, 1990 and 1999 or 2000

<table>
<thead>
<tr>
<th>Quintiles</th>
<th>First</th>
<th>Second</th>
<th>Third</th>
<th>Fourth</th>
<th>Fifth</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>3.0</td>
<td>4.4</td>
<td>5.7</td>
<td>7.3</td>
<td>10.1</td>
<td>6.6</td>
</tr>
<tr>
<td>2000</td>
<td>4.3</td>
<td>5.7</td>
<td>7.2</td>
<td>8.8</td>
<td>11.2</td>
<td>7.6</td>
</tr>
<tr>
<td>Jamaica</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>9.7</td>
<td>9.0</td>
<td>10.0</td>
<td>9.7</td>
<td>10.8</td>
<td>10.0</td>
</tr>
<tr>
<td>1999</td>
<td>9.3</td>
<td>9.5</td>
<td>10.0</td>
<td>10.2</td>
<td>10.5</td>
<td>10.0</td>
</tr>
</tbody>
</table>
Group-based differences are still large among racial but not between gender groups

In terms of categorical, or group-based, variations, Chapter 3 showed that there continue to be large differences in educational attainment between ethnic and racial categories. In Brazil, Bolivia, Guatemala, and Peru, the wages of prime-age, nonwhite men are on average half those of whites, and the difference in mean per capita incomes is even lower. (See Table A.45 in the Statistical Appendix). Differences in education always account for the larger share of the differences that are revealed in the labor market. As Figure 7.3 shows, progress in reducing black-white differentials in schooling has been much slower in Brazil than in South Africa. Years of schooling for South African blacks are lower than for Brazilian whites among older age cohorts, but higher among younger ones.

In contrast, with respect to gender women have made significant advances relative to men. Among younger cohorts in most countries, women are at an educational advantage, at least with respect to years of education attained. This also applies to gender differences among blacks in Brazil, but does not apply to indigenous groups in Bolivia and Guatemala, where girls continue to have lower attainment and enrollment.

Spatial differences have remained large during educational expansions, at least in some countries. This is markedly so in the case of northeastern Brazil and the southern states of Mexico. In the latter case, which includes Chiapas, Guerrero, and Oaxaca, there is also a strong overlap with differences associated with indigeneity.

FIGURE 7.3.
Years of schooling by cohort for blacks and whites in Brazil and South Africa

Tertiary education is increasingly the most salient divide

One of the key correlates of advantage in the past 10–15 years has been achievement of tertiary education. In 19 out of the 20 countries for which data exist for the end of the 1980s and 1990s (Guatemala is the exception), marginal returns to tertiary education is substantially above the returns to secondary education (see Table A.31). Furthermore, for 11 of the 17 countries for which time series have been produced, marginal returns to tertiary education rose during the 1990s.

These differences in tertiary education make some of the trends in expansion of enrollment particularly worrisome from the perspective of future inequality dynamics. As noted in Chapter 2, a compression of differences in enrollment at the primary school level has occurred between income categories, in turn a consequence of the crowding-in of excluded groups. Experiences have been varied at the secondary level, with neither clearly equalizing nor unequalizing patterns seen across countries.

However, in the 1990s differences between the top and bottom quintiles in the enrollment of 18–23 year-olds widened substantially in all countries except Brazil, El Salvador, and Honduras, all three of which had the highest levels of inequality in tertiary enrollments in the region (see Figure 2.13 in Chapter 2). There are high and often rising inequalities related to tertiary education, which gives the greatest gains and (as discussed below) receives the highest subsidies. Moreover, the privileged access to tertiary education is in many countries associated with either private secondary schooling—which is affordable only to the better-off—or with passage through higher-quality public schools.

The importance of educational quality

Educational levels are only part of the story. Of at least equal importance is the quality of education. As discussed in last year’s World Bank report (de Ferranti and others 2003) and Chapter 6, issues of low quality appear to be pervasive throughout Latin America. Those countries that have participated in international tests have scored substantially below the Organisation for Economic Cooperation and Development (OECD) average or scores for high performers elsewhere (especially some East Asian and Eastern European countries). This is shown in the results for Chilean and Colombian students in the Third International Mathematics and Science Study (TIMMS) test and for Brazil and Mexico in a standardized test undertaken by the OECD. These results reflect not only a lower average but a wide dispersion in Latin America. Only 4.4 percent of Brazilian students and 8.6 percent of Mexicans scored above the OECD average.

Differences in educational quality are strongly associated with other dimensions of inequality, especially the socioeconomic status of households. As one illustration of this link, Table 7.2 shows the differences in test results among Brazilian students by self-identified racial category. This information shows large deficits for nonwhites, which are higher for blacks than for people with mixed blood. Between one-third and one-half of the deficit is associated with differences in the socioeconomic status of individuals or with the condition of schools. A slightly higher proportion of the deficit is attributable to both socioeconomic and school conditions taken together. Thus, poorer, nonwhite students get both worse results and worse schools, and there
remains an additional effect associated with race. This problem is typically interpreted as the product of some combination of race-based differences in family or social experiences and expectations or factors in the schooling experience that are not captured in data on schooling conditions (for example, the social distance between teachers and students, poorer teaching skills, and cultural aspects of the curricula).

The importance of socioeconomic status in determining test results is a common finding. An analysis of Brazilian and Mexican schools by the OECD (2001) found that only 20 percent of differences in test results can be explained by differences in school quality and that overall, about half of the variation in student test scores occurs within schools, with the other half explained by differences between schools (see Table 7.3). However, with regard to differences between schools, more than half of the difference is due to measured gaps in the socioeconomic status of students.

**TABLE 7.2.**
Mathematics test results for Brazilian students who self-identify as black or of mixed blood, compared with white

<table>
<thead>
<tr>
<th>Observed difference</th>
<th>Difference adjusted for socioeconomic status</th>
<th>Difference adjusted for schooling conditions</th>
<th>Difference adjusted for both socioeconomic status and school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed blood (pardo)</td>
<td>−16</td>
<td>−9</td>
<td>−8</td>
</tr>
<tr>
<td>Black (preto)</td>
<td>−24</td>
<td>−18</td>
<td>−14</td>
</tr>
</tbody>
</table>

*Note: The standard deviation of math tests is 50; all differences shown are statistically significant. Sources: Apresentação de Creso Franco, SAEB 1999, INEP, 8° série Matemática.*

**TABLE 7.3.**
The small effect of schools on variance in student learning outcomes

<table>
<thead>
<tr>
<th>Share of total variance in test results across students (in percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Due to differences in student performance within schools</td>
</tr>
<tr>
<td>Brazil</td>
</tr>
<tr>
<td>Russian Federation</td>
</tr>
<tr>
<td>Czech Republic</td>
</tr>
<tr>
<td>Korea, Republic of Mexico</td>
</tr>
<tr>
<td>Developed country average</td>
</tr>
</tbody>
</table>

*Source: OECD 2001, Annex B1, Table 2.4.*
The possible transformation of education in the future

What would Latin American countries look like with more equal educational conditions? The answer depends on three factors: the distribution of both the quantity and quality of education; the pattern of remuneration in the labor market; and the mechanisms that translate such remuneration into household income distributions. Indirect effects of expanded education on fertility and labor force participation would also play a role. The relative increase in the supply of more educated workers would tend to reduce the wage premia paid to these workers, but what actually happens is a product of both interactions with demand-related side effects and the influence of formal and informal institutions.

In light of the incomplete understanding of the determinants of wage structures, this report does not seek to model or predict changes. However, as reported in Chapter 6, two paired comparisons were undertaken, between Brazil and the United States and Chile and Italy. Brazil and Chile are both unequal societies even by Latin American standards, yet have very different educational structures; Chileans have higher and more equally distributed education levels. The United States is a rich country with high levels of education, and has relatively flexible labor markets by OECD standards. Italy also has a highly educated workforce, but is relatively equal and has more policy and institutional interventions in place in the labor market.

The two paired comparisons led to the contrasting results that were presented in Chapter 6. In the case of the Brazil-United States comparison, differences in the distribution of educational endowments and returns to education explained about two-thirds of the difference in overall income inequality. This suggests that benefits of an equalizing education expansion exist for Brazil, which could in turn induce movements toward the more equal returns observed in the United States. However, for the Chile-Italy comparison, the difference in inequality in educational endowments hardly explained any of the difference in income inequality. Much more was due to the pattern of returns to education and the greater equality associated with unobserved factors in Italy. This would suggest that the sources of the differences in income inequality between the two countries stem from factors other than the structure of education.

A related exercise for the poor Brazilian northeastern state of Ceará yielded results that were also consistent with a cautious assessment (Ferreira and Leite 2003 and World Bank, 2003d). That study simulated a large educational expansion and, instead of making a comparison with another country, explored the implications of a plausible range of changes in the pattern of returns on skills. Even with a strong equalizing shift in the pattern of returns, the overall influence on income inequality was small, in part because expanded basic education induced entry of relatively low-skilled women into the labor market. In contrast, the effect on poverty was substantial.

In addition to these comparisons across countries and possible long-run changes, an educational expansion has potentially significant transitional effects. When there are high returns to tertiary education (and convex returns overall), as well as relatively small groups of tertiary graduates, there can be a temporary rise in overall inequalities. This is because initial expansion of tertiary enrollments will tend to increase the share of the highly paid. Only when this group becomes sufficiently large will overall inequality decline.
These simulations should be considered as accounting exercises that provide some quantitative information on what might occur if the educational (and other) characteristics of Latin American countries were to shift substantially. Simulations are certainly not predictions. However, they suggest that although equalizing education expansion is undoubtedly of fundamental importance, it would be unwise to assume that education alone would lead to a transformation of income inequality.

**Policy choices for educational transformation**

What are the political, policy-related, and institutional conditions that would lead to an equalizing expansion of education, in terms of both quantity and quality? Both policy formulation and implementation matter. Experiences in Latin America and elsewhere suggest that there is no magic bullet for attaining higher quality and more equitable education systems. There are many promising experiments in decentralization, demand-side measures, transparency, and testing, but none alone is a panacea. The way in which systems operate depends on the context, that is, on the patterns of interactions emphasized in this report, in which economic factors are intertwined with political, social, and cultural influences. General work on service provision (World Bank 2003a) has emphasized the varieties of influence and accountability that determine the design and execution of policy. These relationships occur both via indirect paths of influence on governmental decisionmaking and the direct interactions between communities and households on the one hand and service delivery organizations and frontline workers on the other.

**The shape of an expanding education system**

As emphasized by de Ferranti and others (2003), the overall way in which an education system expands makes a significant difference with regard to its equity properties. A major theme developed in that report was the need for extensive expansion from the bottom up, in keeping with the path of East Asian and Scandinavian countries. For most countries in Latin America, this approach would imply a particular focus on a large expansion of secondary education. However, this type of expansion alone is not enough.

First, of equal importance is the need to address the potentially adverse effects of the “massification” of education, especially through measures that both ensure high quality and prevent the large-scale opting-out of education by members of the middle class, whose political support for quality education is crucial. This makes the issues around accountability and teacher performance fundamental. Second, there is a strong need to improve access to tertiary education—which is primarily the domain of elites—both to ensure that societies makes effective use of the pool of potential talent in the population and to create incentives and opportunities for all groups taking part in secondary-level schooling.

**Societal commitment and resources**

Discourse in Latin America is strongly proeducation, typically emphasizing the right of everyone to at least a basic education. This trend is often linked to the rising demands for higher skills as a result of globalization. However, actual behavior and conditions result in a more mixed picture.
Resource allocations are indicative of the level of commitment of national or local governments. However, differences in total resource allocations explain only part of the differences in educational outcomes. According to international standards, most Latin American countries have already allocated significant resources to education. The share of gross domestic product (GDP) spent on education at all levels in the region fell from 3.7 percent to 2.9 percent between 1980 and 1990, but then rose to 4.8 percent by 1995. This trend compares with 2.6 percent on average for East Asian developing economies (de Ferranti and others 2003).

The real issue at hand is the allocation and effective use of resources. In this regard, there are large differences among countries. Figure 7.4 illustrates three very different patterns of spending across primary, secondary, and tertiary levels. Chile has seen a large, equalizing convergence across these levels; Mexico has experienced steady growth at all levels, thereby maintaining unequal patterns; and Brazil has a large bias toward tertiary education, which receives seven times more funding than does secondary education.

**FIGURE 7.4.**

*Spending by education level in Chile, Mexico, and Brazil*
Issues also exist that are related to the distribution of resources across inputs. Especially in the wake of macroeconomic crises, there has been a tendency in Latin America to cut nonpersonnel-
related expenses disproportionately, resulting in a situation in which a high proportion of spending is on teachers. In contrast, all “production function” analyses find that the marginal effect of nonsalary spending is many times higher than spending on teachers. This reflects the priority that both governments and teachers’ unions place on the relative protection of personnel.

Finally, there are questions to be asked about the depth of support for education spending. Are citizens, businesses, and policymakers eager to improve education and enthusiastic about tax-based support, especially in an increasingly globalized world? This is not always clearly the case. At least for some poorer regions, there appears to be some resistance to educational expansion on the part of modernizing business elites, who often prefer lower-cost labor and training, subsidies, and tax advantages from governments rather than concerted efforts to expand secondary education (see Box 7.1). It is particularly interesting that this echoes the 20th century experience of the southern states in the United States, which also pursued a relatively low-tax, low-education, cheap-labor course as part of efforts to attract private investment.

This pattern underscores a more general message: the need for civic efforts to facilitate high-quality, broad-based education, including access to tertiary education. Economic incentives do matter, but are insufficient, and may not always be supportive of educational upgrades (as described in Box 7.1 with regard to the business world’s preference for only basic education). This is consistent with historical experiences of education expansion. As noted in de Ferranti and others 2003, the “Great Transformation” of education in the United States during 1910–40 was due to a range of economic and societal factors, including high rates of return on secondary education, campaigns by school administrators, and egalitarian features of the schooling system. Societal pressures that served to change the collective expectations of all participants mattered, as they did during earlier periods of education expansion in the United States (Goldin 1999 and 2001).

**BOX 7.1.**

**Business elites and the fear of education: is there a low-road trap? Evidence from northeastern Brazil and the southern United States**

In light of the current combination of democratization and allegedly surging demands for developing skills in a world of economic reform and globalization, it would seem that fear of, or resistance to, education would be a part of past history. In conducting background work for this report, Judith Tendler (2003) explored a specific, surprising dimension of this issue in the context of attitudes among business elites, who constitute an important, somewhat neglected source of demand for education.

Drawing on fieldwork in northeastern Brazil, other surveys of the business world’s attitudes in Brazil, and the historical experience of the southern United States, Tendler found that “modernizing” business elites (including those who have relocated from southeastern Brazil) prefer workers with only basic education. This is generally considered sufficient for workers to rapidly catch up to productivity levels that prevail in higher-wage areas, especially when combined with on-the-job training. (Comparable results were found in surveys referred to in Tendler 2003 in other parts of Brazil). Minimum education levels are also seen as key to maintaining a more docile and less mobile workforce with weak aspirations to advance to less grueling service sector jobs. This preference is in contrast to the typical public discourse of the business sector on the value of education. However, it is consistent with a survey of Brazilian elites by Elisa Reis 1999, who found that business elites were unwilling to support increased spending or taxes on education, despite the fact that they often named education as an important factor in poverty reduction.
The low-education preferences of business elites are in practice supported by specific policies of northeastern Brazilian state governments. In particular, as in other poor regions (notably the southern United States), state governments have emphasized low wages and tax breaks as sources of competitive advantage. This tendency has been complemented by an array of specific training and infrastructure subsidies that help firms upgrade their own labor forces but take away resources from the greater collective need of generalized educational upgrading, especially at secondary levels. These patterns seem to make up a “low road” to globalization that keeps northeastern Brazil (and similar poor areas and poor countries) in a low education/high inequality equilibrium relative to the alternative of broad-based, tax-financed educational upgrading.


Decentralization, accountability, and teacher performance

The skills and performance of teachers, as well as their interactions with pupils, are key to the quality of schooling, and thus also to the distribution of schooling quality. In many countries, the teaching profession has been greatly affected by the patterns of political and institutional development discussed in Chapter 5. Teaching appointments are often part of clientelistic forms of patronage (see Angell and others 2001 on the case of Colombia). Teachers’ unions are usually important forces, whether as elements of historical corporatist structures (in Mexico, for example) or as sites for political mobilization (as in Bolivia). This fact provides a context for reform efforts.

Considerable experimentation with education reforms has taken place in Latin America, including decentralization both at the school and local government level (see De Gropello 2003 for a review). However, there has been little rigorous evaluation of the impact of decentralization on the quality of service delivery and educational outcomes, and even less on distributional effects. With respect to increased school autonomy, EDUCO in El Salvador has been frequently cited as a major experiment in greater school autonomy that allowed educational expansion for poorer groups without a loss in quality. Most studies of this and similar reforms find a significant impact either on educational achievement or on intermediate variables, such as teacher management and learning, with a positive but weaker link occurring between autonomous decisionmaking in pedagogical processes and learning. Schools that are more active in tracking and monitoring teacher activity are likely to be more successful in increasing student achievement.

By contrast, little evidence exists on the impact of decentralization of local or intermediate governments on educational achievement. Actual performance is likely to be context-specific. For example, Angell and others (2001) document significant differences in the extent to which local education reform was effectively pursued across municipalities in Colombia. Pasto stood out for the vigor of its local reform efforts, which were part of an overall shift to more effective local governance and facilitated in part by the election of a dynamic outsider mayor (see Chapter 5). This is an area in which further experimentation would be highly useful, along with ongoing monitoring and evaluation.

A more contentious issue is that of vouchers. Advocates see vouchers as having the potential to increase school quality by allowing households to exercise choice among different schools, which would in effect apply competitive pressures on educational systems to improve
performance. It is also argued that vouchers can benefit the underprivileged by allowing poor kids to choose better schools. On the other hand, critics fear that vouchers will heighten the polarization among schools and between students that do well and those who don’t, and undercut the morale of teachers more than they spur better teaching. International evidence on these points is ambiguous (Gauri and Vawda 2003).

The effects of vouchers are not clearcut, judging from the results of the two main experiments with the system in Latin America: a large-scale expansion in Chile and a five-year experiment in Colombia that was targeted toward low-income neighborhoods. Some studies of the Chile case find modestly higher test scores, but this is not a robust result; others argue that neither overall quality nor the achievement gap between subsidized and nonsubsidized elite schools has changed (see, for example, Hsieh and Urquiola 2002). In Colombia, vouchers were allocated through a lottery, which allowed for a quasi-experimental evaluation that found that winners scored 0.2–0.3 standard deviations higher on standardized tests, after controlling for other characteristics of students and their families (see Angrist and others 2002. Note that the program was discontinued in 1997.) A tentative conclusion is that vouchers targeted toward poor children in urban areas—where there is significant school choice—may play a useful role. However, vouchers do not appear to be as important an instrument as the conditional cash transfers referred to below, which also involve transfers for education but with different design characteristics.

**Proactive support for excluded groups**

Although broad-based expansion of education systems helps to expand coverage to poorer groups, there is also a strong case to be made for special action to include those students that have historically suffered educational deficits due to location, socioeconomic class, or culturally based inequalities. Ongoing experiments therefore suggest the need to work on both the demand and supply sides of the education issue.

With respect to the demand side, there is evidence that scholarships conditional on school attendance have positive effects on deprived groups. These include *Oportunidades* (previously known as PROGRESA) in Mexico and *Bolsa Familia* (previously *Bolsa Escola*) in Brazil, among others. (These are discussed in more detail in Chapter 9, since an important element of the design is redistributive transfers targeted toward poor families.) In the case of *Oportunidades*, geographic targeting has led to the relatively high participation of indigenous people (although those in the most remote areas without schools are not reached) and specific grants for girls, who in this group suffer higher dropout rates than boys. Such programs have become one of the core instruments for providing incentives for excluded groups to enter school.

On the supply side, bilingual education is of particular relevance to indigenous people. Indigeneity is not coterminous with speaking indigenous languages, especially in the context of the major migrations of indigenous or mixed blood groups to urban areas. However, for many of the more rural and poorer indigenous groups, language is an important aspect of both their learning experience and cultural identity. Ethnographic and other case study evidence documents the role of social distance in schooling, which can be amplified by language factors. This is not solely an issue for traditional indigenous groups; work by Portes and Rumbaut (2001a) on migrants (especially Latino and Asian) to the United States finds analogous problems, which can become more acute in the case of the children of migrants who are torn between two cultures.
Bilingual education can play a role both in terms of enhancing education, since initial learning in a mother tongue seems to help students, and managing cultural transitions by reducing social distance and making learning more relevant to children (see Box 7.2). One issue in this context that has not been addressed in core educational work is the position of Afro-descended children. In this case, the issue is not so much language as more subtle cultural aspects of social difference that an education system can accentuate or active design can help combat. This is an area for further research and efforts.

**BOX 7.2.**

**Bilingual education: preserving cultural heritage without being left behind**

Research shows that for students whose “home” language is not the dominant language in a society, those in bilingual education schools have higher reading comprehension levels than those who learn in only the dominant language. Bilingual education schools typically teach skills in the child’s native language and then transfer these skills to the use of the nationally dominant language.

Those in favor of this educational model argue that simultaneously immersing a student in a new language and a new skill does not allow the student to learn either very well, thus accounting for low performance on reading tests. Conversely, those who are against this model claim that by teaching a child in his or her native language first immediately puts them at a linguistic disadvantage that cannot be overcome later in the education process. This debate is partly settled by empirical evidence, which shows that the bilingual education approach provides equal or higher reading competencies to children across the world, in such diverse countries as Canada, Guatemala, Haiti, Nigeria, the Philippines, and the United States. Preliminary work in Guatemala further suggests that bilingual education is cost-effective in terms of learning outcomes.

*Source:* Patrinos and Velez 1996; additional information provided by Harry Patrinos.

**Toward more democratic tertiary systems**

Tertiary education systems are predominantly the domain of elites, and are typically highly subsidized (though much more so in Brazil than in, for example, Chile). This trend is both inefficient and inequitable. The talent pool is reduced and the intergenerational transmission of wealth and elite status is facilitated. Reforming tertiary education is often contentious, with (understandable) resistance to subsidies for less advantaged groups. There are, however, experiments underway that seek to make attending a university more affordable to the poor and to make the quality of different universities more transparent. As discussed by de Ferranti and others (2003) a number of measures will need to be taken, including overcoming credit and information constraints for potential applicants, increasing cost recovery for public universities (in light of high private returns), and linking public resources to performance. A particular issue is whether to introduce affirmative action programs based on race, ethnicity, or class. This is currently a controversial issue in Brazil with respect to Afro-descended groups. The evidence is clear that such groups are both greatly under-represented in tertiary education and suffer a series of disadvantages in schooling and socialization processes. Achieving a more equal society in Brazil would require greater representation. The goal of affirmative action programs in that country would be to build an education system that allows talented Afro-Brazilians (as well as the indigenous and poor) to advance through the educational system.
The experience with affirmative action in the United States provides some lessons, including with regard to the complexity of the issue. In July 2003, the U.S. Supreme Court ruled on a case that supported the goal of including racial diversity in the objectives of recruitment policies, but ruled that mechanistic means of doing so (as in across-the-board adjustment in test scores) are not constitutional. Although the authors of this report do not have a clear basis for being for or against affirmative action in college recruitment in the Brazilian case, there is no question that action of some kind is needed to increase the chances that poor and talented Afro-Brazilians will gain access to tertiary education.

**Educational reform “against the odds?”**

First-phase reforms involving access to and expansion of basic education often command broad support from various stakeholders, including politicians, teachers’ unions, and parents. However, second-phase reforms that are needed to deal with problems of quality—including for poorer groups—typically involve measures that affect the conditions of work for teachers and increase the power of parents and communities. At the tertiary level, reform can involve dealing with the vested interests of universities and students who are part of richer groups in society. Is making education more equal therefore a classic political economy case of reform “against the odds,” in which benefits are diffuse but costs are associated with concentrated and organized groups?

Actual experiences show that reforms do occur, with the role of different groups varying across cases. This is seen in a five-country study of Bolivia, Brazil (in the state of Minas Gerais), Ecuador, Mexico, and Nicaragua by Grindle (2002; see also discussion in Ames 2003). Efforts in all five countries involved decentralization to the state, municipality, or school, and to differing degrees involved providing training and career advancement opportunities to teachers and promoting student testing, parental involvement, and curricula reform. Teachers’ unions were often found to be sources of resistance. However, in every case except Ecuador, significant reforms were undertaken that involved leadership from the executive branch (that is, by presidents or ministers of education) and persistent action by reform teams.

Do unions have to be the villains in reform processes? Maceira and Murillo (2001) argue that it is necessary to take into account the market position, beliefs, and alliances of teachers unions, but that engagement and negotiation with worker representatives can be a source of both sensible design and, importantly, greater buy-in by stakeholders. Indeed, in at least one of Grindle’s (forthcoming) cases (the Brazilian state of Minas Gerais), unions appear to have been advocates for reform and to have long called for greater democracy in education. Similarly, the Colombia teachers’ union has significant progressive elements, especially in the pedagogic movement, that favor decentralization, greater school autonomy, and teacher appointments by open competition rather than clientelism (Angell, Lowden, and Thorp 2001).

### 7.2. Property rights, land, and housing

Property rights matter for both growth and inequality. Security of property rights is essential to investment, and were featured in the original “Washington Consensus” as one of the ingredients for growth. Links between property rights and inequality may also be a factor in the bivariate
association between measures of polarization and of the credibility and predictability of property and contractual rights (Figure 7.5). On the one hand, greater polarization may be a source of challenges to property rights, if manifested in distributive struggles (as argued by Keefer and Knack 2000). Such challenges can be in the form of outright expropriation or the more subtle form of changes in policies, such as taxes, that affect returns to property.

On the other hand, unequal political structures can cause inequalities in both the ownership and security of property rights. Unequal land ownership has been a central feature of Latin American history (see Chapter 4) and remains prevalent in many parts of the region today. However, inequalities in security are also prevalent, as made clear by typically weaker land rights in poorer urban areas (de Soto 1989 and 2000). Furthermore, in politically unstable societies, one solution has been to generate institutional mechanisms for selective commitments on property rights that typically involve tight alliances between political and economic elites, as discussed in Chapter 5 (see Haber, Maurer, and Razo 2003 for a detailed discussion on the case of Mexico).
More secure property rights for all will thus generally be good for equity, especially if they influence patterns of investment by households and property owners across the income distribution. However, there are potential tradeoffs. Where property ownership (as opposed to the security of property rights) is very unequally distributed, a case can be made for redistribution. Nonetheless, threats of expropriation for redistributive purposes will lower the investments of property owners, in turn reducing growth (and possibly employment). These issues are discussed below, first in the context of rural land and then with regard to urban areas, which also includes the consideration of housing.

**Rural land reform**

Inequalities in land ownership have been at the center of the historical formation of social, income and political inequalities in Latin America (see Chapter 4). The typical pattern in the region has been the creation and maintenance of large landholdings for groups of colonial origin, followed in most countries by the extensive appropriation of land by elites after independence in both the 19th century, and, in some countries in the 20th century. A wide range of mechanisms were used to effect this process, including expropriation of indigenous lands during both the colonial period and the 19th century (for example in El Salvador, Guatemala, and Mexico), control of labor through slavery to make land productive (notably in sugar production in Brazil), forced labor requirements, debt peonage, imported indentured labor, and vagrancy laws. These mechanisms were complemented by interventions related to taxes, inputs, and other market-related aspects.

Comparative information on the inequality of land ownership is unreliable, since standard measures don’t adjust for land quality and use. With this word of caution in mind, Tables 7.4 and 7.5 show the commonly quoted land-related Gini coefficients. For Latin America as a whole, the Gini coefficient was 0.81 in the second half of the 20th century, compared with 0.56 in Asia. As discussed in Chapter 4, the prevailing pattern of landholding and production became intimately linked with forms of political domination and the weak influence of subordinate groups, trends that were supported by the neglect of education and other social services.

Although the frontier settler countries of Argentina, Chile, and Uruguay had small indigenous or Afro-descended populations, they also developed highly unequal patterns of land ownership. Argentina and Uruguay had, if anything, slightly higher than average levels of inequality, in large part because of the extensive pattern of livestock production. Chile’s relatively modest land inequality, represented by a Gini coefficient of 0.64 around 1981, was influenced by land reforms of the 1960s and early 1970s. (Under the Pinochet government, these reforms were only partly reversed, with a significant component of distribution to small and medium farmers.) Costa Rica—for reasons related to socioeconomic structure and political transition in the late 19th century—developed a system of political influence that gave substantial influence to small and medium farmers over the shaping of policy, along with an associated early broadening of suffrage and the provision of basic education. This process was associated with relatively equal land distribution in the Valle Central, the most populated and important area of the country.
Outside this area, land was unequally distributed, which explains the high overall Gini coefficient.

TABLE 7.4.
Gini coefficients for the distribution of operational holdings of agricultural land across regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Deininger and Olinto (i)</th>
<th>UNDP (ii)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>0.81</td>
<td>0.74</td>
</tr>
<tr>
<td>Mid-East &amp; N. Africa</td>
<td>0.67</td>
<td>0.56</td>
</tr>
<tr>
<td>North America</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>0.61</td>
<td>0.51</td>
</tr>
<tr>
<td>Western Europe</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>East &amp; South Asia</td>
<td>0.56</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Note: Column (i) shows averages for the 1950-1994 period. Column (ii) shows values around 1981.

TABLE 7.5.
Gini coefficients for the distribution of operational holdings of agricultural land in Latin American countries
Redistributive land reform has long been advocated both as a source of greater short-run equity and efficiency and as a measure to support the transition to a more rapid and equal development path. However, it is important to recognize the complexity of the relationship between land size and productivity. Current thinking on the land size-efficiency relationship in Latin America recognizes this complexity.

For most crops and under normal conditions of availability of mechanical services, production is neutral with regard to scale for a wide range of farm sizes, starting with fairly small areas of one or two hectares. For grains and other field crops that require a small labor input and little management, the relevant area can be large (that is, up to several hundred hectares). For farms growing labor-intensive crops (mostly fruit and horticulture) or when management requirements are substantial (because of such factors as varying soil conditions, erratic weather conditions, frequent pest incidence, and mixed farming), returns on production begin to decline rather quickly. This is because under similar technology and market conditions, family farms are generally more efficient than wage-labor farms with regard to managing labor and ensuring quality management practices.

<table>
<thead>
<tr>
<th></th>
<th>Deiniger &amp; Olinto</th>
<th>UNDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antigua</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>0.86</td>
<td>0.85</td>
</tr>
<tr>
<td>Bahamas</td>
<td>0.90</td>
<td>0.87</td>
</tr>
<tr>
<td>Barbados</td>
<td>0.90</td>
<td>0.93</td>
</tr>
<tr>
<td>Belize</td>
<td>0.72</td>
<td>0.71</td>
</tr>
<tr>
<td>Bolivia</td>
<td></td>
<td>0.77</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.83</td>
<td>0.85</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.85</td>
<td>0.77</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>Grenada</td>
<td>0.78</td>
<td>0.74</td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>Guyana</td>
<td></td>
<td>0.68</td>
</tr>
<tr>
<td>Honduras</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>Jamaica</td>
<td>0.81</td>
<td>0.81</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td>Nicaragua</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>Panama</td>
<td>0.71</td>
<td>0.87</td>
</tr>
<tr>
<td>Paraguay</td>
<td>0.86</td>
<td>0.78</td>
</tr>
<tr>
<td>Peru</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Suriname</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>Trinidad</td>
<td>0.68</td>
<td></td>
</tr>
<tr>
<td>Uruguay</td>
<td>0.82</td>
<td>0.80</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.92</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* The values for each country correspond in column (i) to the first value in the 1950–1979 period and in column (ii) to the most recent observation during the 1980–1994 period.

*Source:* Authors’ calculations based on Deininger and Olinto 2002 and UNDP 1993.
For crops that require immediate processing (like coffee, sugar, or African palm), small farm size is not a problem at the farm level (that is, in terms of production), but can be a disadvantage at the industry level if coordination between farmers and mills is inadequate. For coffee, farm size is not a significant problem because processing—in which timeliness is essential—is carried out on the farm with simple means. However, processing can make a difference for sugar, palm oil, and banana production; for these crops, both wage-labor plantation systems and family farm systems have proved to be competitive. Industrial crops that do not require immediate processing (such as cotton, a variety of oil seeds, and to some extent cocoa) tend to be grown competitively on small and medium family farms.

Large farms often have advantages in terms of access to input and output markets, financing, and contracting of technical assistance. This can sometimes offset diseconomies of scale associated with management and labor supervision. The advantages of large farms could potentially be replicated by small and medium farms if they coordinated input and output needs through cooperatives or similar associations, as is done in many parts of Europe. However, in situations of marked agricultural dualism—which are typical in Latin American countries—the small farm sector usually remains disadvantaged with respect to access to financial and technical services.

In addition, small, poor farms are generally located on marginal land, often in mountainous areas, that offer poor conditions for commercial farming. The advantage of large farms has frequently resulted from an array of distortions in policy induced by the political influence of landed elites. Such distortions range from output, input, and credit subsidies to the public provisioning of infrastructure to meet the needs of large farmers (see Binswanger, Deininger, and Feder 1995).

This situation suggests that small farms can be efficient alternatives for production, but that this depends on conditions specific to particular crops and associated factors such as marketing and credit. The importance of context in turn implies that attention should be given to the likely heterogeneity of conditions. In one review of empirical work in six countries, López and Valdés (2000a, 2000b) found that the contribution of land to per capita income is low (even though returns on production are typically either constant or decreasing), especially when compared with other factors of production such as human capital.

However, recent work on Mexico by Finan, Sadoulet, and de Janvry (summarized in Box 7.3) finds a more complex relationship between land size and welfare, with the potential for making large, poverty-reducing gains from levels of land ownership as low as one or two hectares. These authors also emphasize the powerful influence of other household characteristics, including education and indigeneity, and of the economic context, with roads having a strong influence on productivity and household welfare.

**BOX 7.3.**

**The poverty reduction potential of land in rural Mexico**

A major question that arises when developing land policy is the effect of increased land on the welfare of the poor. Although almost all studies find a positive impact both on production and income, empirical work on several Latin American countries by López and Valdés (2000a and 2000b) concludes that the effect of land on the size of income is low for small farmers. This implies that only large increases in land would lift poor rural farmers out of poverty. Work on rural households in Mexico by Finan, Sadoulet, and
de Janvry (2002), based on a 1997 survey, casts important light on this issue. These authors use a methodological approach (specifically, semiparametric regression techniques) that allows for highly nonlinear relationships with land size. They also explore the impact of complementary factors and use a broad welfare measure that captures the multiple dimensions of well-being, as well as income alone.

There are two main results of this approach. First, access to even a small plot of land can raise household welfare significantly: for small landholders with at most one hectare of land (which means 30 percent of farmers in the survey), an additional hectare increases welfare by an average of 1.3 times the earnings of an agricultural worker. (This is illustrated in the figure below, which shows the peso value of marginal increases in land.) This pattern is partly due to the fact that land can facilitate the more effective deployment of a household’s labor resources in the context of imperfect labor markets and local unemployment. As the size of land increases, its marginal value falls to a much lower level.

The marginal welfare impact of increased land

![The marginal welfare impact of increased land](image)

*Note:* The upper and lower lines are the 95 percent confidence intervals. Land size is in hectares.

Second, there are important complementarities between land and other influences. Finan, Sadoulet, and de Janvry (2002) explore this by comparing farming households with different characteristics and decomposing the differences in asset holdings and differences in these assets across households. This is shown in the figures (a–c) below. The first figure (a) explores the impact of nonland assets for households with low levels of education (group A) and high education (group B). The bottom line \( W_A \) shows the estimated relationship between welfare and land size for households with low education. The second line \( W_{A1} \) estimates the relationship for group A, assuming that its members had the nonland assets and the same returns as the members of group B. The third line \( W_{A2} \) adds in the higher returns received by group B. Finally the top line shows the relationship between land size and nonland assets, returns on education, and returns to land for group B. The combination of differences in nonland assets and differences in returns on these assets explains a high proportion of the gap.

The second figure (b) undertakes a similar exercise between indigenous and nonindigenous households. Results show that nonindigenous households not only possess higher nonland assets, but also get higher returns on these assets; there is an unexplained premium of 55 percent of the welfare differential. If indigenous households had the same return on their assets as do nonindigenous households, they would only require access to less than 3 hectares to reach the poverty line, compared with the 15 hectares needed given the returns they actually receive. Finally, the third figure (c) shows the impact of road access; the infrastructure context has a powerful impact on returns and on the efficacy of increased land in improving...
welfare. These results underscore the importance of developing an integrated strategy for rural development, including the need to understand the special conditions faced by indigenous groups.

**a. The welfare impact of land assets and interactions with education**

![Graph showing the welfare index for high and low education levels.](image)

**b. The welfare impact of land assets and interactions with indigeneity**

![Graph showing the welfare index for indigenous and nonindigenous groups.](image)

**c. The welfare impact of land assets and interactions with road access**
There is also some evidence of the dynamic advantages of lower land inequality. The negative influence of land inequality on subsequent growth has been documented in econometric work, as illustrated by the bivariate relationship shown in Figure 7.6. Such cross-country results are only suggestive, as has been emphasized throughout this report. Earlier chapters have discussed a range of potential mechanisms through which land inequalities may be associated with lower growth. These include the impact on policy distortions and, perhaps more profoundly, links with the creation of weak and unequal institutions that dampen growth prospects. In contrast, work that interprets the sources of rapid East Asian growth has often emphasized how relatively equal land distributions, combined with the political imperative to provide benefits to peasants, has resulted in policy choices that favor the broad-based provisioning of economic and social services.\(^\text{11}\) This pattern has fostered a relatively dynamic rural base and the upgrading of the labor force that contributed to the industrial takeoff.

**FIGURE 7.6.**

Land inequality and growth

Source: Finan, Sadoulet, and de Janvry 2002.
The history of “incomplete” land reforms in Latin America

Despite the resistance and influence of landed elites, it is notable how much redistributive land reform actually occurred in Latin America during the 20th century. The Mexican revolution led the way, and was followed over the decades by large-scale reforms in Bolivia, Chile, Cuba, El Salvador, Nicaragua, and Peru (see Table 7.6). These were sometimes motivated by peasant mobilizations, but also—especially during the Cold War era and in the wake of the Cuban revolution—by pressure from above and outside, including from the United States under the Alliance for Progress. These forms of pressure had the joint objectives of increasing the well-being of peasants and reducing the probability of a rural communist insurgency.

Throughout the 20th century, the possibility of redistributive land reform was also politically facilitated by rising urbanization and the growing importance of urban relative to rural elites. In some cases (Chile for example), alliances between the peasantry and urban-based, social democratic movements formed the political foundation for land reform. Yet the results were largely disappointing. By the late 1980s, de Janvry and Sadoulet (1989) were lamenting the “lost game of Latin American land reform” because of the lack of significant redistribution and the growing influence of medium and large farmers on the state as Cuban-style threats diminished. The predominance of first authoritarian and then economically liberalizing democratic regimes further contributed to the lack of interest in radical land reform in the 1980s and 1990s. As a measure of international opinion, the World Bank’s 1990 World Development Report (World Bank 1990) judged land reform to be good for poverty reduction in principle, but to rarely be feasible except under the unusual circumstances of colonial action or revolution.
### TABLE 7.6.
Selected land reforms in Latin America in the 20th century

<table>
<thead>
<tr>
<th>Period</th>
<th>Area Total (’000 ha)</th>
<th>Share of arable land (%)</th>
<th>Beneficiary households Number (’000)</th>
<th>Share of rural households (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico 1915-76</td>
<td>13,375</td>
<td>13.5</td>
<td>3,044</td>
<td>67.5</td>
</tr>
<tr>
<td>Bolivia 1953-70</td>
<td>9,792</td>
<td>32.3</td>
<td>237</td>
<td>47.5</td>
</tr>
<tr>
<td>Peru 1969-79</td>
<td>8,599</td>
<td>28.1</td>
<td>375</td>
<td>30.8</td>
</tr>
<tr>
<td>El Salvador 1932-89</td>
<td>401</td>
<td>27.9</td>
<td>95</td>
<td>16.8</td>
</tr>
<tr>
<td>Nicaragua 1978-87</td>
<td>3,186</td>
<td>47.1</td>
<td>172</td>
<td>56.7</td>
</tr>
<tr>
<td>Chile a 1973</td>
<td>9,517</td>
<td>60.1</td>
<td>58</td>
<td>12.7</td>
</tr>
</tbody>
</table>

*Note: Figures for Chile refer to the partial reversal of the redistributive land reforms of the previous decade, for which data are not available. Source: World Bank 2003b.*

What happened with the major land reforms of the 20th century? They clearly did not usher in the hoped-for transformation of social and economic inequalities in Latin America. Nor, for the most part, did they generate the kind of vibrant smallholder sectors that were so important in furthering East Asia’s dynamic development path. However, the reason was not because land reform was in principle ill-conceived. Rather, major land reform efforts were often poorly designed—notably where ill-fated production cooperatives were emphasized—and, more fundamentally, were “incomplete” (de Janvry and Sadoulet 2002).

This incompleteness existed both with respect to the generation of competitiveness in the post-reform sector and to giving power to peasants, whether in terms of direct or implicit influence over decisionmaking (the latter being a feature of East Asian successes even under authoritarianism). Although the communist transition (particularly in China and Vietnam) and communist threat (in much of the rest of East Asia) made governments respond to the interests of the peasantry, the threat of Cuban-style revolutions in Latin America spawned halfhearted land reforms and heightened repression, at least until the democratization movements of the 1980s ensued.

The political agency of landed elites was one of the factors behind the weaknesses in reforms. A specific element was the economic response to the threat of land redistribution, or the heightened insecurity of property rights. This in particular induced both low levels of tenancy and the eviction of tenants, followed by shifts into more capital- or land-intensive forms of production, such as livestock production (Binswanger, Deininger, and Feder 1995, de Janvry and Sadoulet 1989). In some cases, resistance took the form of the suppression of rural movements, tenant evictions, or large-scale violence between peasants and governments or other forces associated with landed elites. This occurred, for example, in Colombia, El Salvador, and Guatemala during the 20th century. Even in countries where major violence did not occur, the effect on the whole society of such “premature ejection” of labor from productive land was strong, and increased inequalities by placing greater pressure on marginal lands, rural, nonfarm production, and urban unskilled labor markets (see Binswanger, Deininger, and Feder 1995, Conning and Robinson 2002).

The “incompleteness” of land reform processes also played out in a variety of settings. In both Mexico and Bolivia, a genuine large-scale transfer of land from haciendas to peasants occurred
in the wake of revolutions. However, in both cases long-term productivity has been low and stagnant and rural poverty has been deep and persistent. In Mexico, there was initially strong state support for the newly created ejido sector—a system of communal lands based on expropriated private landholdings—with regard to efforts related to irrigation, credit, and technical assistance. The poor performance of the sector may in fact partly reflect weaknesses in longer-term support, but an important element was an underlying problem in the design of land management.

Restrictions on tenancy and the subdivision and sale of land undermined incentives for production and structural change (World Bank 2001c). The 1992 reforms were a response to these problems (as discussed below). The ejido sector was also incorporated into vertical, clientelistic patterns of political relationships, backed by food-related programs and the provisioning of local works that helped sustain rural support, in particular for the Partido Revolucionario Institucional (Institutional Revolutionary Party, or PRI) (Fox 1993). There is evidence of the evolution of unequal power within ejidos that provided local counterparts of statewide and national forms of clientelism (World Bank 2001c).

In Bolivia, the failure to generate a competitive and influential peasant sector was much starker. The land reform occurred mainly in the Altiplano and valleys, with little action taking place in the then sparsely populated Oriente. Relatively egalitarian land structures were formed in the former areas, but there was again a failure to support peasant-based production. This failure had political roots. The horizontal alliances that were a force behind the 1953 revolution were quickly reoriented toward vertical incorporation of these groups into the new national structures, notably within the leading political agent of the revolution, the Movimiento Nacional Revolucionario (National Revolutionary Movement, or MNR).

With this change, the peasantry entered a new phase and took on a new form of neglect (albeit without haciendas, or estates, controlling them), except for their continuing important role in providing votes when elections were held. The restructuring of unequal vertical relationships overlapped with the continuation of identity-based differences, or perhaps because of, the much greater predominance of indigenous groups in Bolivia than in Mexico. Meanwhile, in the Bolivian Oriente, where soils and agroecological conditions were better, a concentration of land occurred behind the backs of the legislature, often in a corrupt fashion. Only during the 1990s did elements of a more broadly inclusive national project reemerge under a “pluricultural” constitution. This effort did build on some of the social changes of the 1950s, notably the granting of legal status to and the potential influence of “base groups” that were typically a syncretic mix of indigenous structures and rural unions. However, progress in land reform remained slow, and reemerged as a central issues in new waves of protest in 2001–2003.

Both Peru and Chile introduced collective land reforms. Peru’s case is both instructive and tragic, especially with respect to the dynamics of change in the poorer Sierra (the strongly indigenous Andean region). The reforms were part of an ideology of giving power to the peasants. As President General Velasco Alvarado said in 1969 after seizing power, “Peasants, the landlords will no longer eat your poverty!” (Seligson 1995, p. 1). However, during the course of implementation, the Peruvian land reforms had features of “high modernist” projects (Scott 1998) that favored the larger-scale cooperative production of expropriated haciendas over support to smallholder agriculture.
The reforms also failed to provide complementary services and favored an integrationist cultural agenda rather than the empowerment of indigenous aspirations. Despite (or partly because of) attempts to shift the highly unequal balance of power in land-related court cases to peasants, land disputes and local conflict were rife. With worsening aggregate economic conditions in the 1970s and 1980s, service provision to poor rural areas remained dismal and poverty worsened, even as deep, old resentments were stirred and new aspects of expectation, mobilization, and conflict emerged. The dismantling of agrarian reform cooperatives took place in the early 1980s, with the parceling of land occurring as an implosive phenomenon rather than as a counter reform. Credit and extension services were cut back and the new parceleros (parcel owners)—many of whom were agricultural workers with little entrepreneurial experience—were left on their own, with disastrous results.

Even important educational advances had mixed effects. The first major cohorts of indigenous groups with an education emerged with hopes of attaining modern jobs, but in reality faced miserable economic opportunities. Local teaching was one outlet, but low-paid school teachers became a source of radical resentment. This in turn provided fertile ground for the emergence of the violent and millenarian Sendero Luminoso (Shining Path) movement, which is much closer in approach to the Khmer Rouge in Cambodia than to traditional guerrilla movements in Latin America. The main victims of both Sendero and the military effort to respond to the movement were poor rural peasants.\textsuperscript{13} Political and economic order was finally restored under the semi-authoritarian regime of Alberto Fujimori (1990–2000), who reversed some of the earlier land reforms (especially those affecting the more fertile coastal areas) and undertook substantial expansion of social and infrastructural services to peasants through a kind of national-level clientelistic project.\textsuperscript{14} However, little was done to strengthen the competitiveness of peasant-based agricultural production.

Other land reform efforts also remained largely mired in problems related to failure to achieve competitiveness, notably under cooperative structures (Cuba and Nicaragua under the Sandinistas) or in sites of conflict (El Salvador). With the shift to a heightened emphasis on markets starting in the mid-1980s, issues of redistributive land reform took a much lower place on the agenda. (On the Washington Consensus list, the important issue of property rights was typically interpreted as a message of increasing those of existing incumbents, thus implying that the redistribution of property rights was to be avoided.)

Major 20\textsuperscript{th} century efforts for direct land reform were disappointing. Did the past 15–20 years of market liberalization yield better results by providing an incentive regime for labor-intensive agricultural development? There were positive developments in terms of the reduction of inefficient distortions in product, input, and credit markets that had been created under the influence of landed elites. In some cases, this helped bring down land prices (World Bank 2003b). The reduced protection of import-substituting industries (through tariffs or the overvaluation of real exchange rates) shifted incentives to tradable production and helped some parts of the agricultural sector—though not producers of subsistence or other nontraded products, which are often important among the rural poor (see Schiff and Valdés 1992 for a review).

The last few decades also sparked high hopes that labor-intensive, export-oriented agriculture would help solve the employment and rural poverty problem and, at least implicitly, render the politically difficult challenge of land reform unnecessary. Chile appeared to be a model for this
INEQUALITY IN LATIN AMERICA AND THE CARIBBEAN: BREAKING WITH HISTORY?

Under the rule of Augusto Pinochet (1973–1990), about one-third of expropriated lands were restituted to their large-scale owners and most of the remainder was allocated as private parcels averaging around 20 hectares. When growth took off (following the economic crisis of the early 1980s), export-oriented agricultural expansion was a central component. During the 1980s, nontraditional agro-exports grew at rates of 222 percent per annum.

Chile was not alone. Other cases—involving in large part the successful association of small farmers and processing and exporting companies—include the development of nontraditional exports, for example, decorative plants, palm kernels, and tropical fruits, on the Atlantic coast of Costa Rica; vegetable production in Guatemala; successful exports to the United States of fruits and vegetables by irrigation farmers in northern Mexico; production of tropical fruits and vegetables for international markets in northeastern Brazil; soya and wheat production in Paraguay; and the recent expansion of palm oil exports from Colombia. Yet while advocates saw such developments as a source of growth and jobs, critics emphasized the adverse effect that they had on the rural poor, primarily in the form of reduced access to land, uncertain work, and rising food prices.

A comparison between export-oriented agriculture in Chile, Guatemala, and Paraguay by Carter, Barham, and Mesbah (1996) provides insight into the question of who benefited from such agro-export booms. The study found that outcomes were contingent on initial conditions, types of crops, patterns of support, and the induced processes of structural change. In Chile, for example, the agro-export boom was dominated by medium to large farmers, in part due to the information, packaging, and marketing requirements of fruit production. With new pressure on the traditional crops grown in the smallholder sector, there was a substantial amount of selling out to large farmers, with almost 60 percent of the parceleros who had received land under the Pinochet land reform selling their land by the late 1980s. This exclusionary pattern (in terms of landownership) was partly offset by the rapid growth in employment on the large farms, but the new jobs were mostly seasonal and paid stagnant or declining wages.

In contrast, in the Guatemalan highlands smallholders have been the main actors in the boom in winter vegetable crops. These crops are 50–300 percent more labor-intensive than traditional crops. In this case, changes in land ownership involve transfers from medium to small producers. This pattern is attributable to four factors: the high levels of labor interactivity required in the production process (where smallholders have an advantage); an initially highly fragmented land ownership structure in this part of Guatemala; contractual linkages with processors that also facilitated working capital; and the ability of farmers to pursue self-insurance strategies by mixing exports with food crops.

In Paraguay, both the pattern of initially adopting soya and wheat and the induced structural changes were exclusionary. This was because of a prevailing mixture of technical factors (some crops required less labor interactivity), economic institutions (smallholders lacked the means to access working capital), and initial land allocation processes (the frontier region had relatively large land allocations and a land market that facilitated unequal agrarian change).

There is no guarantee that small farmers or rural workers will be major beneficiaries of agro-export booms. Agro-exports can favor poor farmers or workers, but the degree to which this actually happens depends on both technical factors and the institutional context. Although
smallholders have often been favored by labor interactivity in some of the agro-export crops and initially fragmented land holdings, most competitive biases work against them. This trend is due to the labor- and skill-intensive character of most production processes, price-quality measurement issues, the perishability of many crops, the extended gestation periods of some investments, and the lack of complementary insurance markets. Similarly, as the case of Petrolina-Juazeiro in northeastern Brazil illustrates (see Chapter 8), export production on large farms can be consistent with decent work for agricultural laborers, but this again depends on the institutional context. In this case, the critical issue was the nature of interactions between the union movement and modern farms.

**New opportunities and options**

Land reform had moved to the bottom of the policy agenda by the end of the 20th century, reflecting shifts in the tides of opinion and disappointments over earlier efforts. Yet the issues that spurred reform have not gone away. Rural poverty remains pervasive and is almost always deeper than urban poverty. Agro-exports can help alleviate the situation, but will not be an automatic solution. The context of the early 21st century provides potential opportunities for intensified action. There is heightened concern today over poverty and social exclusion and continued demands from established movements (such as the Movimiento Sem Terra in Brazil and indigenous groups in many countries). Perhaps most important, more recent experience suggests that land reforms can be designed to be effective and to reflect lessons learned from the mistakes of the past.

An approach involving multiple paths and activities is outlined below. There is no single “high modernist” or other route to rural development and agrarian change. It is increasingly understood that there are multiple exit paths out of rural poverty, including migration, intensified smallholder production, and unskilled and (increasingly) semiskilled work on farms and in rural nonfarm activities and small towns. Transfers for redistribution and risk management can also play a complementary and transitional role (see Chapter 9).

This complexity implies the need to avoid standardized solutions. One example involves plot size. “Unviable” plots for agricultural production can in fact play an important role in income generation and diversification, even when the bottom 20 percent of rural households typically gets only 30–50 percent of its income from agriculture. As discussed in Box 7.3, increasing land to the 1–2 hectare range in Mexico can have a significant impact on poverty. More broadly, achieving competitiveness is a factor of overall spatial strategies, local participation, and linkages between agricultural and nonagricultural sectors, as emphasized in “la nueva ruralidad.” (Food and Agriculture Organization and the World Bank 2003). In addition, as noted above, support for smallholder production also involves tackling remaining distortions that favor large-scale production and developing infrastructural and institutional services to support smallholder production. Finally, agrarian change is often intimately connected with the identity-based inequalities and subsequent needs for and policies on social incorporation that were major themes in Chapters 3 and 7.

Both farmers and countries across Latin America—as well as the extent to which land reform is on the political and economic agenda throughout the region—vary greatly. It is important to distinguish between countries (and among areas within countries) with regard to where existing
land rights are and are not contested. The former applies to parts of Bolivia, Brazil, and Colombia (for example in parts of the Bolivian Oriente). In these cases, agrarian reforms with some expropriatory elements may have a role to play, with their design depending on both political and technical considerations. In Colombia, recent legislation allows for the confiscation of the lands of druglords. The situation is different in countries where the land rights system has legitimacy, such as in the Southern Cone countries or where there are no lands to redistribute (for example, in the Bolivian highlands, Mexico, and Peru).

Five approaches to land reform are outlined below. It should be noted that in all of these examples, infrastructural, technical, and institutional support tailored to local conditions is essential to ensure competitiveness.

**Strengthening tenancy markets.** As already noted, the tenancy market in Latin America is severely underdeveloped relative to other parts of the world, especially when compared with developed countries. The primary reasons for this are weak property rights and a lack of conflict resolution mechanisms, sometimes combined with prohibitions on renting (for example, pre-1992 in the Mexican ejido sector). Yet rentals can be a major mechanism for the redistribution of land access, with significant efficiency gains. Renting is also often part of the land acquisition “ladder” for small producers. There is a strong case to be made for tackling existing disincentives to rent (see below for an example from Mexico post-1992). There are also a variety of experiments that seek to support tenancy and deserve careful tracking and evaluation; examples include the Landless Workers’ Consortium and Sharecropper and Rural Leasing Exchange in Brazil and group rentals in Honduras.

**Land titling.** Insecure property rights can reduce production growth because of reduced incentives to make investments and the limited ability to use land as collateral for credit. According to surveys conducted in the early- to mid-1990s, about 63 percent of farmers in Chile, Colombia, Honduras, and Paraguay lacked legal title to their land (López and Valdés 2000). Empirical work on Honduras and Paraguay has identified significant impacts of this trend, for example an increase in per capita income by 5 percent in Honduras. However, most benefits were captured by medium and large farms. Work on Asia suggests that land titling alone is insufficient. To reap significant benefits, titling should be complemented by a fair and effective legal system, cadastral surveys, and implementation of enforcement mechanisms, in addition to actions that enhance competitiveness in terms of infrastructure and other economic services.

**Community- and market-based land reform.** In the early 1990s, the World Bank and other agencies became associated with a new approach to land reform. This involved decentralized and voluntary land sales backed by both credit and grants for land purchase (in addition to complementary actions to enhance competitiveness). Such assistance is needed because land prices typically exceed in-use values due to other sources of land value (for example, as an investment and source of security and status), and even after distortionary policies are removed. There are some interesting experiments under way, notably in the Cédula da Terra project in Brazil, but rigorous evaluations on them are not yet available. There are also disadvantages to this approach, especially those associated with fiscal cost. In addition to upfront fiscal subsidies, a contingent fiscal liability applies if farmers default on loans used for land purchase. These fiscal costs may limit the potential for scaling up community- or market-based land reform. Nevertheless, this approach may be a valuable instrument for some groups of farmers, especially
under conditions in which there is mutual acceptance of the legitimacy of land ownership by both the seller and the purchaser.

**Negotiated recuperation of lands.** There are substantial but underutilized opportunities for recuperation of lands for use by poor people at a relatively low cost. This includes the potential distribution of public lands. In Bolivia, the government has identified 900,000 hectares of land suitable for settlement; in the Dominican Republic there is a backlog of already expropriated land. This approach may also involve recuperation of illegal settlements, given the potential welfare dimensions of this process. There are also opportunities for negotiated deals in areas where land title is ambiguous, that is, where partial release of land with uncertain title is conducted in return for titling of the smaller part. The mayor of Brasilia has an ongoing scheme of this kind, and a comparable scheme is under way in the Dominican Republic. Many Latin American land reforms have incomplete titling and present new opportunities. Releasing land in return for greater security of the remaining plot can be an attractive deal for landowners.

**Land reform and indigenous, communal processes.** One aspect of land reform that is of particular relevance to indigenous groups involves collective rights to land. Indigenous cultures often have effective ways of managing property that balance the need to provide security and incentives for investment with mechanisms for regulating the overuse of common resources. (See Chapter 1 in World Bank 2003b for a review of such methods.) Indigenous groups in Ecuador and Bolivia have succeeded in obtaining collective rights that involve restitution of ancient claims. When traditional mechanisms work well, such approaches can be both equitable and efficient solutions, but there is also a risk of maladaptation to dynamic processes of social and economic change. With rapid change, problems of insecurity, conflict, and overuse of common property become more important. In addition, indigenous sociocultural systems can perpetuate traditional patterns of inequality. Institutional design needs to be shaped in a way that simultaneously allows for change and integrates transparent, local democratic processes so that decisions can be made as local land policy evolves.

An example of the transition from collective toward more individual landholdings is the *ejido* (communal land) sector in Mexico. The 1992 land reforms, which involved changes to the 1917 constitution, were the product of a political compromise between those resistant to change in the *ejido* sector and advocates for a full-blown shift to property rights. The resulting hybrid reform may have been a judicious choice. The self-governance of *ejidos* was strengthened through the effective recognition of their legal standing and autonomous decisionmaking power over internal matters, and in particular by allowing members to decide on the form of land ownership within their entity (including full individual property titles). Land rental was fully supported and sales were legalized but restricted to others within the *ejido*, except when a community decision was made to shift to *dominio pleno*, or fully individualized titles. An independent system of agrarian justice was set up to administer a wide range of land disputes.

Some 50 million hectares and 3 million households have had land regularized under the *ejido* reform, including 1 million households that previously had no land rights at all. No major sell-off or concentration of landholdings has occurred, as feared by some. Panel data for 1994–1997 shows that those who participated in *ejidos* also experienced rising incomes, primarily because of an expansion in off-farm work. An extensive program of resolution of conflicts over land was also established and there is some evidence of greater transparency and deepening in governance.
within ejidos, which have been subject to both external party influence and substantial internal inequalities in power. The agenda remains unfinished, however, especially in areas where land disputes and other conflicts are severe; this is particularly the case in the southern states, which are poorer and have a higher concentration of indigenous people than other areas. Nonetheless, the ejido process still represents a complex reform that may facilitate a process of modernization without the sudden removal of existing mechanisms that provide security (World Bank 2001c).

**Urban land and housing**

With regard to urban areas, the focus is placed here on the housing issue, which has important links with issues of land tenure. For most people in urban areas, housing is the single most valuable item they will ever own. For the poor and much of the middle class, home ownership and the accumulation of consumer durables are typical asset-building strategies. Expenditures on housing account for an average of 25 percent of household consumption. What happens to the distribution of housing is likely to have a strong impact on asset inequality in any given country.

Homeownership itself is not highly correlated with income (see Table A.8). Homeownership often, but not always, increases along with an individual’s income. In Argentina and Ecuador, for example, it is higher in the poorest quintile than in the second and third quintiles. In addition, homeownership even among the very poor is quite high (above 60 percent for most countries), with the exception of Ecuador and Colombia. A large proportion of poor homeowners have informal tenure; in Mexico, for example, a survey of the country’s poor urban neighborhoods shows that only about half the homeowners had a formal title to their land. Even in Argentina, where the housing market is quite mature, a full 18 percent of all homeowners lack a full set of titles.

Despite relatively equal access to homeownership, in the countries for which data are available the overall distribution of housing wealth is extremely unequal, even more so than inequality in incomes (see Table 7.7). Chile in 2000 is a partial exception, with housing wealth inequality similar to income inequality. This may be the result of a widely praised homeownership program. The distribution of housing wealth appears to be less stable than income distribution, but it is unclear whether this is due to greater measurement errors or real trends (Fay, Yepes, and Foster 2002).

**TABLE 7.7.**

**Distribution of housing wealth across income quintiles in Brazil, Chile, and Peru (in Gini coefficients and percent)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing wealth Gini</td>
<td>0.66</td>
<td>0.72</td>
<td>0.69</td>
<td>0.59</td>
<td>0.73</td>
<td>0.66</td>
</tr>
<tr>
<td>Income Gini</td>
<td>0.45</td>
<td>0.44</td>
<td>0.56</td>
<td>0.57</td>
<td>0.56</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Share of housing value held (percent):

- Income quintile 1: 14, 4, 17, 11, 7, 8
- Income quintile 2: 17, 6, 11, 13, 9, 9
- Income quintile 3: 18, 9, 13, 17, 13, 13
Is housing a good asset to hold? Being a homeowner brings advantages of a constant flow of services and frees liquidity-constrained households from having to generate a fixed sum for rent every month. This can be important in times of crisis. For example, in Uruguay 10 percent of people who did not own the house in which they live had to move following the economic crisis in order to cut down on housing costs. Housing services can also be monetized quite easily by taking in renters or additional household members. However, being a homeowner may also have some downsides, for example by tying the poor to locations that are disadvantageous for work or unsafe due to crime or natural disasters. It is unclear how liquid housing markets are in poor neighborhoods.

Most governments in the world have pursued active homeownership policies. Throughout Latin America, these have typically taken two forms: mortgage subsidies that benefit the middle and upper classes and the provision of “low-income” housing of a size and value that is typically beyond the means of the low-income population. In Mexico, about one percent of GDP is spent on housing subsidies that largely benefit the middle and upper classes, substantially more than is spent on Oportunidades, the country’s largest targeted social program. Developed countries, on the other hand, have been more successful with their homeownership policies. Two good examples are the United States and the United Kingdom, where a secular trend of decreasing wealth inequality has been associated with the spread of popular assets such as housing and consumer durables (Davies and Shorrocks 2000).

Most low-income families in Latin America acquire housing through informal markets, the main characteristic of which is the gradual acquisition and upgrading of housing. It is estimated that informal housing accounts for about one-quarter of all urban homes in Latin America (Angel 2000), varying from a low of 10 percent in Buenos Aires to a high of 59 percent in Bogota (ECLAC 2000). Low-income families are concentrated in informal housing for several reasons. The avoidance of cumbersome regulation and excessive standards can lead to substantially cheaper houses. (In Buenos Aires, for example, the cheapest formal sector house or apartment costs 2.7 times the median income; similar housing in an informal settlement costs 0.8 times the median income.) The informal sector also offers the opportunity to live in houses that are built gradually as financing resources become available. In the informal sector, the gradually built house consists completely of equity, and can be lived in, sold, rented, or passed on as family patrimony, however modest and incomplete.

While informal housing is the most common choice for low-income families, it has disadvantages from a public policy point of view. The informal sector is poor at performing the collective action role of ensuring that settlements have adequately defined rights of way, properly titled properties, and access to urban services such as water and sanitation. Failure to plan properly for these aspects means greater capital outlays in the future, for example to resettle families away from high-risk areas (such as floodplains), replot rights of way so that...
emergency vehicles and collective transport can access communities, and untangle legal claims on property that can take years or decades to resolve.

An effective and equitable public policy should be based on a good understanding of the informal sector, and seek to work on both the demand and supply sides of the housing and land markets. To a large extent, policies have evolved. In the 1960s and 1970s, the public sector sought to directly provide low-income housing, typically linking it to clearing out slums and relocating populations in new settlements, which were often in more distant, cheaper locations that made transportation and other aspects of daily life costly and inconvenient. As a result, the poor would often sell their new houses and move into informal settlements closer to town. Gradually, projects began to focus more on upgrading slums, but high costs and the absence of cost-recovery policies resulted in government agencies running out of resources. The 1980s saw a greater emphasis on reforming housing financing and the financial performance of related government agencies. Today, public policies aim for a more integrated approach and are adopted to support demand through property rights, mortgage financing, and the rationalization of demand subsidies. This approach in turn helps to promote institutional development and to organize supply by providing infrastructure for residential land development, regulating land and housing development, and coordinating the building industry.

High supply costs are often due, at least in part, to regulatory or market failures. Many national or local governments impose minimum land use and housing standards that place housing out of reach for large segments of the population. Moreover, cities in many countries suffer from a scarcity of serviced land, usually because of the cumbersome process required to develop land. In Ecuador, the laws governing residential development have created a cumbersome approval process for residential subdivisions that averages 16 months and imposes costs estimated at 30 percent of the value of new homes.

Public policies to ease supply-side constraints focus on lowering costs, increasing the supply of serviced land, and engaging residents in the provision of housing. This requires administrative reforms to:

- Make land tenure regularization and land transactions easier. Peru offers an excellent example of successful reforms of this type. In just over five years, the COFOPRI project regularized 1.6 million lots and registered more than 1.2 million titles by streamlining administrative and legal processes and adopting a large-scale approach to regularizing vast tracks of illegal housing.
- Make buildings and land subdivision regulations more flexible and allow for reduced norms and standards. Experience in Brazil and elsewhere has shown that with flexible standards, a house can be built at about half the price of a formal housing unit.
- Allow for and encourage progressive provision of infrastructure, whereby public investment focuses on major trunk infrastructure and leaves to the residents (in partnership with developers) the process of installing connections to their plots.
- Develop innovations in materials and reduce system installation and material costs.

On the demand side, the main objective is to ease the financial constraints of the poor. This can be done through small savings schemes; by pooling group savings into community trusts and linking the trusts to national housing finance programs; by providing access to staged and
progressive loans and technical assistance; by encouraging community-based production and employment; and through small targeted subsidies in the form of up-front capital grants for people who cannot afford a down payment. Developing financing strategies to meet the demand for low-income housing also helps stimulate the interest of private sector entrepreneurs in development and construction. A number of countries have successfully experienced such demand-side interventions. Perhaps the most successful example of a direct subsidy is Chile’s Unified Subsidy and Basic Housing Program, which enrolls the poorest income groups in a savings program that eventually allows them to acquire a house through a combination of savings, a direct subsidy (which varies according to income but cannot exceed about US$4,000), and an optional mortgage credit. Again, these programs are flexible in that they allow participants to purchase an old or a new housing unit or to build a house for those that already own a plot.

In recent years, these principles—along with a greater emphasis on community participation and cost recovery—have been applied to a new generation of very successful programs to upgrade slums. One of the better known is the case of El Mezquital, a low-income informal settlement with a population of close to 40,000 people on the outskirts of Guatemala City. In this community, an average public investment of US$1,200 per household has stimulated substantial increases in private investment and has resulted in significant improvements in the quality of life (for example, infant mortality rates fell from 80 to 20 per 1,000 live births in four years) and an increase in land values by a factor of 11. In El Mezquital, community participation extends beyond the simple contribution of labor to involvement in planning, implementation, and evaluation of all activities. Management capacity is promoted by working through the community. Both project funding and contracting are carried out directly by a community association. Community-based organizations ensure that the costs of investments are recovered and that families pay for the consumption of urban services.

**Land and property taxation**

The issues discussed in this section are linked with the tax issues discussed in Chapters 9. Land and property taxes are substantially underdeveloped in Latin America relative to OECD comparators in particular (as shown in Figure 7.7). Even though these are not elastic taxes, they could play a much larger role and yield benefits in terms of efficiency, equity, and local government functioning. Technical issues related to this shift exist, but are not insuperable. In the context of rising decentralization, the current emphasis on social inclusion, and the need for more accountable local government, the time has come to have a major push for a substantially greater use of these instruments in both rural and urban areas. A new tax-related strategy could be politically linked to local reform and development, whether through agrarian change or urban land development.
7.3. Infrastructure services and the distributional impact of privatization

This section turns to the relationship between infrastructure provision and inequalities. Infrastructure services can have large effects on the level and distribution of well-being. Yet infrastructure provision is also embedded in the political economy of Latin American societies. The amount, efficiency, and equity of infrastructure provision has been compromised in particular by clientelistic structures and the persistently low tax effort typical in much of the region. Since the 1980s, there have been major attempts to reform infrastructure provision, both through privatization and reforms within the public sector. Some of these have brought substantial benefits for both efficiency and equity. However, these changes are incomplete, with problems remaining with regard to the process and regulation of privatization (which partly explains its extreme unpopularity) and, in most countries, a strong need for both more spending and deepening of reforms within the public sector.

Why infrastructure matters

Infrastructure can have both direct and indirect effects on well-being. Access to and use of electricity, roads, telephony, clean water, and improved sanitation has intrinsic value: in many societies, access to at least some of these categories of basic infrastructure is considered a right that should be extended to all citizens. There are also important indirect effects on incomes, via the influence of roads on access to markets and jobs, and of electricity and telephony on the productivity of small and large enterprises. Finally, there are indirect influences on health,
education, and security, for example through access to schools and clinics. As discussed in Chapter 2 and illustrated in Table 7.8, access to infrastructure remains unequal, especially in poorer countries such as Bolivia and Honduras. In addition, even where access is reasonably equal there are large differences in consumption that are correlated with income. Often differences in access are magnified by differences in quality, with lower quality in peri-urban and rural areas. Infrastructure expansion has the potential to equalize income and other dimensions of well-being if it increasingly integrates poorer groups into regional and national systems of production, commerce, and service provision.

**TABLE 7.8.**
Access to selected services for top and bottom deciles, selected countries (in percent)

<table>
<thead>
<tr>
<th>Country (ranked by income)</th>
<th>Water</th>
<th>Sewerage</th>
<th>Electricity</th>
<th>Telephones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top quintile</td>
<td>Bottom quintile</td>
<td>Top quintile</td>
<td>Bottom quintile</td>
</tr>
<tr>
<td>Uruguay (1989)</td>
<td>98</td>
<td>80</td>
<td>82</td>
<td>28</td>
</tr>
<tr>
<td>Brazil (1992)</td>
<td>n/a</td>
<td>n/a</td>
<td>87</td>
<td>17</td>
</tr>
<tr>
<td>Mexico (1992)</td>
<td>96</td>
<td>63</td>
<td>91</td>
<td>28</td>
</tr>
<tr>
<td>Colombia (1996)</td>
<td>96</td>
<td>60</td>
<td>92</td>
<td>35</td>
</tr>
<tr>
<td>Bolivia (1996)</td>
<td>86</td>
<td>26</td>
<td>49</td>
<td>4</td>
</tr>
<tr>
<td>Honduras (1990)</td>
<td>89</td>
<td>49</td>
<td>55</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: National household surveys analyzed for this report.

Evidence of the influence of infrastructure on incomes is provided in recent country level analyses (Calderón and Chong 2003, Calderón and Servén 2003). This work explores the cross-country relationship between infrastructure, growth, and inequality by using an international data set of both developing and developed countries. It is not surprising that infrastructure is correlated with growth: higher-income countries can afford the investment in infrastructure. What is of particular interest in these analyses is their attempt to disentangle the influence of infrastructure on both growth and inequality. The analyses use data on the stock of telecommunications, electricity, and land transportation (roads and railways) and examine the relationship between expansions in indices of infrastructure stocks and subsequent changes in growth and inequality. (Technically, this is done by using dynamic models such as the General Method of Moments to minimize endogeneity problems, as well as to control for various other influences.)

These studies find that more and better quality infrastructure both enhances growth and reduces income inequality. With respect to growth effects, it is quantity, not quality, that is significant in the econometric analysis. After controlling for a range of other influences on growth, Calderón and Servén (2003) find that about a quarter of the variation in Latin American growth in 1996—2000 relative to 1981—85 can be explained by differences in infrastructure stocks. With respect to income inequality, both the quantity and quality of infrastructure has a significant negative influence: more and higher quality infrastructure is associated with lower inequality, after controlling for other influences (such as initial income, education, financial assets, and health). Calderón and Chong (2003) estimate that an increase in infrastructure equivalent to moving up
one quartile of the global distribution of infrastructure stocks is linked with a reduction in the Gini coefficient of 2.2 points in a five-year period and 12 points in the subsequent 35 years. Such a long-run effect is equivalent to a shift from the level of inequality prevailing in Brazil to that in Costa Rica.

Even the most careful cross-country analysis has to be treated with some caution given the multiple, interacting influences at play. It is therefore important to complement this type of evidence with microanalyses. When this is done, there is evidence of the positive influence of infrastructure. For example, in Guatemala (which has low levels of infrastructure provision), infrastructure is strongly correlated with the profitability of microenterprises (Table 7.9). Econometric analysis that controls for other influences on profitability and seeks to deal with the endogeneity of infrastructure further supports the view that access to electricity, water and telephony have large, significant influences on incomes: expansion of these services to poor, underserved populations can lead to equalizing income increases. Similarly, in El Salvador, panel data on incomes in rural areas finds an association between expanded infrastructure and proximate influences on incomes (such as time to market), with disproportionate gains accruing to poorer groups (World Bank, forthcoming). In an analysis of the effect of rural road rehabilitation in Peru, Escobal and Ponce (2002) find a significant impact of road quality on income, especially in terms of wage employment. (This study seeks to control for reverse causation, that is from incomes to rural roads, by matching households in areas close to rehabilitated roads with those in other areas that did not benefit from the intervention.)

**TABLE 7.9.**
Enterprise profitability and access to infrastructure in Guatemala (net income of owner in Quetzales per worker hour)

<table>
<thead>
<tr>
<th>Basic service</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>8.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Piped water</td>
<td>7.9</td>
<td>4.7</td>
</tr>
<tr>
<td>Fixed phone</td>
<td>15.9</td>
<td>4.6</td>
</tr>
<tr>
<td>Cellular phone</td>
<td>20.2</td>
<td>5.2</td>
</tr>
</tbody>
</table>

*Notes: Refers only to enterprises that operate in dwelling. The null hypothesis of equality of profits between enterprises covered and not covered is rejected in all cases at either 99 or 95 percent levels of significance.*


This selective review of macroeconomic and microeconomic evidence supports the premise that infrastructure matters with regard to both the level and distribution of well-being. Other work, provides evidence on additional dimensions, notably education and health (see Fay and others 2003). This finding complements the role of other assets (such as education and land), as illustrated, for example, by the discussion of farming in Mexico in Box 7.3. The rest of this section turns to issues in the provision of infrastructure.

*Latin American problems in infrastructure delivery: finance and institutions*
The 1980s debt crisis resulted in the culmination of longstanding problems in infrastructure provision in Latin America. Although conditions varied across the region, the primary symptoms of insufficient infrastructure were low levels and unequal provision of infrastructure services, dismal quality, and lack of financing. This malaise can be seen as a product of deeper institutional conditions, as discussed in Chapter 5. Throughout the region, infrastructure was traditionally provided by public utilities or government departments. It is therefore useful to place infrastructure concerns in the context of differing intellectual perspectives on the role of public or private enterprise, and to distinguish three views (La Porta and López-de-Silanes 1999):

- The “social welfare” view, in which public enterprises can pursue goals set by governments that reflect society’s broader interests (including those related to equity), as opposed to the “narrower” profit motive of private firms.
- The “agency” view, in which economic incentives are crucial to behavior (especially that of managers) and public provisioning raises special challenges in providing sufficiently “high-powered” incentives.
- The “political economy” view, in which the owners and managers of both public and private enterprises are embedded in political structures and reflect the groups and distributional alliances that they are a part of.

The first perspective, on social welfare, formed the overt ideological basis for the nationalization of public utilities and, in many countries, large parts of the tradable industrial sector. Sometimes this process has been more closely linked to nationalist ideologies (as in Mexico) or “populist” projects with vaguely socialist or national socialist leanings (as in the case of Peronism in Argentina). However, the principle in all its various forms is essentially that public ownership could better protect the national patrimony, support the expansion of employment, and provide goods and services for all.

By the 1970s and early 1980s, public enterprise sectors throughout Latin America were increasingly tattered, characterized by low productivity, bloated payrolls, and the rising drain on government budgets. There were also high levels of inequality in supply in the utility sector (which still holds to some degree, as discussed in Chapter 2), with significant segments of the population at the bottom of the income distribution rationed out of the public provision of electricity, water, sanitation, and telephony. The middle and upper classes benefited from low prices but suffered from low service quality, especially with respect to obtaining new connections. These conditions best fit a combination of the agency and political economy views.

The public provision of infrastructure was typically embedded within the broader clientelistic patterns of relationships that long defined state-society interactions. In most of the region in the middle of the 20th century, nationalization formed part of the broader process of incorporation of various domestic groups into the state (see Chapter 5). Nationalization generally involved the expropriation of foreign actors, while beneficiaries included domestic businesses (as both suppliers and consumers of goods and services at low prices), formal workers, and urban consumers (Murillo 2002). This resulted in specific dynamics of behavior on the part of these enterprises for clientelistic purposes (Foster 2002, World Bank, 2003a).
Politicians maintained control over the public sector by appointing and dismissing managers and providing subsidies to support unsustainable enterprises. In return for this patronage, utilities were obliged to do political favors in the form of providing jobs, keeping tariffs down, and allocating new investment and public works contracts on the basis of political criteria. This pattern undermined incentives for efficient performance and, in turn, resulted in high costs, excess employment, and a lack of internally generated resources to finance badly needed expansions in service coverage. With the fiscal crises of the 1980s, money from the national budget also dried up. Customers had little if any power to hold providers directly accountable for services and national elections were much too broad a mechanism through which to express discontent with specific utilities.

Most countries responded to this crisis in service provision with significant institutional reforms. Privatization dominated the discourse of the late 1980s and 1990s, even though it formed only one element of the reforms pursued. These also included decentralization of water provision (mainly to municipal levels) and attempts to corporatize national utilities that remained in the public sector. However, privatization is of particular interest in light of its centrality in debates over the relationship between reforms and inequality. For advocates, privatization seemed to offer a straightforward solution to the twin problems of a lack of finance for infrastructure expansion and severe inefficiencies: using the institutional transition to facilitate a genuine break with the past. Fiscal proceeds from sell-offs only added to the attraction. Although distribution was emphasized less, there were hopes that solving the financing problem would both allow expansion to underserved populations who had been rationed out under old models, and yield benefits by releasing resources for social spending.

Privatization was pursued across the region under diverse political regimes. These included, in the words of Murillo (2002, p. 462, “not only right-wing regimes such as Pinochet’s in Chile, Chamorro’s in Nicaragua, and Calderón Sol’s in El Salvador, but also…old populist parties like the MNR in Bolivia, the Peronists in Argentina, and the PRI in Mexico [which] led the push to privatize…even though they had previously been the champions of nationalization.” Executive power and technocratic designs undoubtedly played important roles in reform efforts. However, a richer account of policy design reveals preferences for change as products both of political constituencies and of the updating of beliefs in light of new information (Murillo 2002). Moreover, it is a mistake to see the post-reform world as one of diffuse benefits, free of the rent-seeking and unequal influence that were features of the pre-reform, clientelist, protectionist model.

Under privatization, new rents and gains were afforded to particular groups—notably domestic conglomerates and wealthy individuals—that politicians could make use of to support old or create new constituencies. Beliefs, fiscal crises, external pressures, and a common culture among decisionmaking elites in the region facilitated convergence. However, the way in which beliefs were updated was influenced by the views and socialization experiences of political elites, leading to varying political biases in the design of privatization. Chile under Pinochet pursued an approach that was friendly to foreign capital, distrustful of state control, and had no overarching regulatory agency. Mexico, which was more nationalist and statist in tradition, placed more restrictions on foreign participation (93 percent of privatizations went to domestic businesses, according to Schamis 2002) and had more regulatory structures. Argentina, which was less nationalist and had a populist-statist tradition, was open to foreign capital but sought strong,
independent regulation (with mixed effects across agencies). These institutional choices have affected the subsequent evolution of privatization.

What were the overall patterns of change? First, there was a substantial expansion of private investment, especially in telecoms and electricity and to a lesser extent in water, roads, and railways. As a result, the private sector in the region now serves some 85 percent of domestic telephone consumers, 50 percent of domestic electricity consumers, and 15 percent of domestic water consumers (Foster 2003). However, with the exception of telecoms, the growth of private investment was insufficient to offset a drastic decline in public investment (Figure 7.8), such that overall investment declined sharply from 3.5 percent of GDP in the first half of the 1980s to 2 percent in the second half of the 1990s. This shift helped release resources for the expansion in social spending (see Chapter 9), but at the cost of a further reduction in infrastructure provision relative to comparators. In relation to the East Asian “tigers,” the infrastructure gap rose substantially. For example, with regard to electric power generating capacity, the median infrastructure stock in East Asia grew from 90 percent of Latin America’s in 1980 to 230 percent in 2000; with regard to paved roads, the ratio rose from 780 percent to 1560 percent (Calderón and Servén 2003).

Second, expansions in service access did occur due to private and public investment (Figure 7.9). Impacts of this investment on inequalities in access varied depending on initial conditions. Where the middle class and elites were already covered, the expansion that did occur typically
went to the poor, as exemplified by water and electricity service in Argentina. However, where access was initially low, the beneficiaries of expansion were typically the nonpoor, especially those in the middle of the distribution. This pattern is consistent with the general dynamics of service expansion, which typically function along the income distribution (see Chapters 2 and 9 with regard to social service provision).

FIGURE 7.9.

Increases in access to infrastructure, by income decile in Argentina and Nicaragua
Source: Authors’ estimates based on household survey information.
Third, privatization became highly unpopular. This became evident in the streets of Arequipa, Peru, in June 2002, when days of rioting against the planned privatization of water and electricity services occurred. The privatization plan was viewed as a betrayal, a selling off of national assets that would only benefit the rich and, most likely, new foreign owners. Such sentiments have echoed across the region, from the dominantly negative view on electricity privatization expressed in the Mexican Congress to the intense feelings and violent action against the botched water privatization process in Cochabamba, Bolivia. A negative view of privatization is also reflected in the sharp fall in assessments of privatization in public opinion surveys conducted by the organization Latinobarómetro (see Figure 7.10). Across the countries surveyed, on average only 22 percent of people thought that privatization had benefited their country, which marked a sharp decline since 1998. Firms surveyed held a similarly negative (and declining) view of privatization.

**FIGURE 7.10.**
Views on privatization in Latin America: the proportion of respondents who said they thought privatization had benefited their country

The remainder of this section first looks at the distributional effects of privatization and then at the policy issues related to equitable expansion of infrastructure in both the public and private sector.

**The effects of infrastructure privatization**

A range of work has examined the impact of the privatization of utilities and other companies on profitability, efficiency, a variety of distributional effects, and financing.

Most analyses find significant gains in profitability and efficiency following privatization. This can be illustrated with partial measures of productivity; for example, sales per worker in Chile, Mexico, and Peru, rose by 88, 92, and 112 percent, respectively. In Argentina, output per worker rose by 46 percent, while in Brazil the ratio of costs to sales implied a 45 percent increase in efficiency. More comprehensive estimates of efficiency changes in Argentina—which account for joint effects on improvements across inputs and outputs—also indicate annual efficiency gains ranging from 1 percent for electricity distribution to 6 percent for water (Estache 2002). How were these gains distributed among consumers, workers, firms, and the government?

With respect to economic analyses of privatization and inequality, there have been three recent research projects with a Latin American orientation. The qualitative results are similar and are illustrated here by a cross-country study of Argentina, Bolivia, Mexico, and Nicaragua that applied common techniques to assessing the impacts of privatization on inequality in the electricity, telecommunications, and water sectors (McKenzie and Mukherjee 2003). All analyses come with an empirical warning: it is difficult to undertake a clean comparison of the experience of privatization with that of continued public ownership under changed economic or managerial conditions, since there are never precisely similar companies or conditions to facilitate such an evaluation. Thus, most analyses are of a before-and-after character with attempts to obtain approximate comparisons when feasible.

Consumers. Impacts of privatization on consumers are due to effects in three areas: increased access, prices, and quality. Such effects tend to reach consumers who are on average poorer than those who already have access; as noted above, the extent of poverty orientation depends on the initial distribution.

Critics often argue that privatization leads to higher prices, which in turn finance higher profits. In fact, price changes vary greatly depending on initial conditions and patterns of change, especially with regard to the balance between gains in efficiency, the need to compensate for historically subsidized prices, and the regulatory and institutional framework that determines profits. A case can also typically be made for tariff rebalancing so that tariffs reflect costs (for example, between local and long distance charges for telephony, across sectors for water and electricity, and between connection and consumption charges in all cases). In the four-country study (McKenzie and Mookherjee 2003), a wide variety of effects were noted, with prices falling in five out of the ten cases studied and rising in the other five (Table 7.10). Even within Bolivia, there were sharp contrasts between real price declines in water in the La Paz/El Alto region and large increases related to the infamous Cochabamba water privatization project (which was later
reversed). Also noteworthy is the large increase in prices for telephony in Mexico, which may have been associated with the granting of a monopoly for several years to the group that won the privatization contract. Finally, with respect to quality, the available evidence is of significant improvements following privatization, in terms of indicators such as reliability and waiting times for connection. (Again, privatization may not have been necessary to secure such improvements, as the experience of the Peruvian public water company in Lima illustrates.)

An analysis of the overall impact of consumer effects on poverty and inequality suggests generally small changes, largely because households devote only small shares of their budget to infrastructure services. In all cases, the effects on inequality were minor. In all but one, effects on poverty were positive but not large. For example, in Argentina access and the price effects of electricity and telephony were associated with minor effects on income inequality and a 1–1.5 percent reduction in poverty. In Bolivia, privatization and water in the La Paz/El Alto region was also associated with little change in inequality and a 1–1.5 percent reduction in poverty. In contrast, the large price increases following the Cochabamba water privatization project did increase poverty by some 2 percent. In Nicaragua, large increases in the welfare of those who gained access to electricity (on the order of 12–16 percent in the bottom three deciles of income distribution) were roughly offset by welfare declines, which were in turn due to price increases for those who already had access.

### Table 7.10.

Price changes after privatization (real price indices relative to the Consumer Price Index, with preprivatization prices set at 100)

<table>
<thead>
<tr>
<th>Service</th>
<th>Argentina Before</th>
<th>Argentina After</th>
<th>Bolivia Before</th>
<th>Bolivia After</th>
<th>Mexico Before</th>
<th>Mexico After</th>
<th>Nicaragua Before</th>
<th>Nicaragua After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephones</td>
<td>100</td>
<td>84</td>
<td>100</td>
<td>92</td>
<td>100</td>
<td>148</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>100</td>
<td>67</td>
<td>100</td>
<td>126</td>
<td>100</td>
<td>124</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>100</td>
<td>84</td>
<td></td>
<td>100</td>
<td>109</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>La Paz/El Alto</td>
<td>100</td>
<td></td>
<td>100</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cochabamba</td>
<td>100</td>
<td></td>
<td></td>
<td>143</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


A significant study by Galiani, Gertler, and Schargrodsky (2002) on Argentina estimates the impact of water privatization on child mortality, a key nonmonetary measure of welfare, by exploiting the variation over time and space between municipalities with and without privatized water. Child mortality fell an additional 5–7 percent in areas with privatized water services and an estimated 24 percent in the poorest municipalities, with the decline in mortality associated with reductions in deaths from water-borne infectious and parasitic diseases.

**Workers.** Extensive job layoffs in privatized enterprises are probably the most publicized and politicized aspect of apparent cost, a pattern that follows naturally from the analysis of the public company as a clientelist provider of jobs. Large layoffs of regular workers have indeed occurred...
in Latin America. A cross-country study by the International Development Bank (Chong and López-de-Silanes 2003) estimates total losses in employment in privatized companies from about 23–25 percent in Argentina, Chile, and Peru to around 40 percent in Colombia and more than 50 percent in Mexico. Firm-specific effects can be larger. Ennis and Pinto (2002) estimate losses of 75 percent in privatized utilities in Argentina (that is, electricity, natural gas, water, telecommunications, airlines, and railways), and indicate that if those workers who were laid off had received zero income, poverty would have risen from 29.5 to 32.0 percent.

However, the net effect or layoffs depends on the labor market and macroeconomic situation. All studies find that net employment effects are less adverse than gross losses, and are sometimes positive. In the case of Mexico, López-Calva and Rosellón (2002) used panel surveys to follow the experiences of individual workers. They found that 45–50 percent of laid-off workers found jobs in the same sector within a year, without any loss of social security or health benefits. Only 0.5 percent of workers were unemployed for a full year. This pattern of generally positive gains is common for the medium term. In the Peruvian telecommunications sector, employment rose from 13,000 to 34,000 jobs between 1993 and 1998. About 145,000 new jobs were created in the same sector in Brazil during that period. Even in Argentina, which had large losses due to a slack labor market, the share of employment in privatized utilities had recovered to almost its pre-privatization levels (around 7 percent) by 1996, suggesting that the long-term trajectory of employment was similar to that for overall employment.

Effects on wages have been varied. In Argentina, economy-wide wages rose following privatization, although the impact of privatization itself may have been mildly depressing because public sector workers commanded a 10 percent premium. However, the impact is unlikely to have been significant, and would have been offset by the increased hours of the workers who shifted to the private sector (Ennis and Pinto 2000). In Mexico, La Porta and López-de-Silanes (1999) found that wages increased in the privatized sectors; the pace of the increase was fastest for blue-collar workers, implying that part of the large efficiency increases were passed on to workers. One of the countries in which wage effects may have been significant and negative is Nicaragua, where reallocation involved some 5–7 percent of the workforce and the public sector wage premium was significant (20 percent in urban and 29 percent in rural areas in 1993).
**Fiscal effects.** Fiscal gains were one of the drivers of privatization. There were often large fiscal gains from sales, followed by increased tax receipts from profitable private companies. Capital receipts ran as high as US$25 billion in Argentina and US$33 billion in Mexico. The distributional effects of these receipts depend on how they were applied by governments, most of which used part of the gains to retire debt. In addition to positive stabilization effects, doing so allowed for reductions in debt service and created fiscal room for the expansion in social spending that characterized most economies in the 1990s. As discussed in Chapter 9, this expansion was generally mildly or significantly equalizing. However, it is noteworthy that some governments ended the decade with higher indebtedness despite gaining large capital receipts from privatization, as was markedly the case in Argentina and Brazil. This pattern is consistent with the use of fiscal expansions by governments to postpone distributional struggles to the future (see Chapter 8), which makes the challenge of achieving growth with greater equity all the greater in the present.

Finally, privatizations have often been undertaken with less than full transparency, which was dramatically the case in Nicaragua. During the period of active privatization in the 1990s, receipts were running at 2.5 percent of GDP every year, yet this had no fiscal implications for or effects on social spending. Given the poor standing of Nicaragua in terms of corruption, it is highly likely that the money that disappeared went to a few rich individuals or groups. The more recent privatization of electricity raised 5 percent of GDP, 80 percent of which actually accrued to government reserves and supported future, if not present, public spending (Freije and Rivas 2002).

**Domestic business sector effects.** Did privatization lead to excess profits for domestic and foreign capitalists? In most cases profits did go up, but often from a starting point of unsustainable, loss-making positions. In addition, a proximate source of these gains was the large layoff of surplus workers. However, as just discussed, layoffs were typically associated with net expansions in employment at the sectoral level. Reasonable profits are a necessary part of private production, and the search for profits is key to the realization of productivity gains under the “agency” interpretation of enterprise performance.

The more relevant question is whether profits were excessive. A study of all privatizations in Mexico found that profits in the noncompetitive sector were not, on average, significantly above the competitive sector (La Porta and López-de-Silanes 1999). A more recent study focusing on utilities finds suggestive evidence of higher profits in noncompetitive than competitive sectors following privatization in Chile, Mexico, and Peru, but not in Colombia (Chong and López-de-Silanes 2003). However, the increase in profits following privatization was not larger in noncompetitive than in competitive sectors. To the extent excess profits existed, they likely reflected regulatory failures, preferences of governments for higher profits to support their tax base, or specific features of the design of privatization. In some cases, explicit or implicit profit guarantees were made that were put in place to attract investors or to maximize fiscal benefits from higher sales prices. Typical cases involved the Mexican and Peruvian telecommunications sectors, where a specified period of monopoly was guaranteed. As noted earlier, prices increased in the former case. In 2002, the charge structure pursued by Peruvian telecoms became a source of public controversy since it was higher than Latin American standards, even though this had been legally agreed to as part of the original sale. Finally, much less is known about illegal gains,
although accusations are common (as previously noted with regard to the missing millions of dollars in Nicaragua).

Who gained control of the privatized assets? There is some evidence of the consolidation of gains by domestic conglomerates, along with a relatively small number of international companies. Schamis (2002) has documented how domestic conglomerates and large-firm business elites in Argentina, Chile, and Mexico were major protagonists and beneficiaries of the privatization process. In the case of Chile under Pinochet, this situation was associated with a revolving door of individuals moving among major conglomerates, the state, and newly privatized companies. In Mexico, such conditions were part of a long tradition of close forward and backward linkages between business and the state (see Haber 2002b), but also marked a change in the patterns of alliance. While the historical influence of business associations representing medium-sized firms (which were judged to be backward and protectionist) was reduced, connections with large-scale conglomerates increased (Schamis 2002). These processes involved new forms of distributional alliances in pursuit of rents.

**An overall assessment**

The preceding analysis of experiences in various countries suggests that utility privatization brought substantial benefits, but that room for criticism remains. There is widespread evidence that greater efficiency has resulted, although higher profits and productivity were often achieved in part by laying off excess workers. There is also evidence that many privatizations led to increased access by poorer groups, that price increases declined as often as they rose, and that net employment effects were often positive within a sector. Moreover, severance pay at least partly shielded the blow of worker layoffs, with aggregate effects on income inequality typically being very small.

Poverty impacts are almost always beneficial and can be significant when large increases in access occur, with apparently few exceptions (Cochabamba in Bolivia being one). On the other hand, there is also evidence that privatization has been associated with increased power on the part of conglomerates and their foreign partners, as well as with relatively high profits in noncompetitive sectors. Finally, accusations of favors being given or corruption taking place during the privatization process have often been made. Such concentrated gains by a few actors, whether made legally or illegally, combined with losses by workers, help to explain the apparent paradox that privatization is deeply unpopular even though it has often yielded significant benefits. Consumers also now expect decent service from their utilities, and no longer use the dismal service levels of the 1980s as a benchmark (Estache 2003).

**Policies for equitable infrastructure expansion**

Privatization alone did not solve the financing and institutional malaise that afflicted the infrastructure sector in the 1980s. In light of the importance of infrastructure to both growth and equity, there is a need for both policies to restore public sector provisioning and a strengthened policy and regulatory framework for private provisioning. A case can also be made for specific subsidy policies on distributional grounds, for both the public and private sectors.

**Restoring public spending and extending public sector reforms**
The case for restoring public spending on public infrastructure is vividly illustrated by Figure 7.8, as well as the previous analysis of Latin America’s widening infrastructure deficit with respect to other regions. Measures to close the gap are good for both growth and inequality. Some sectors—sanitation and rural water and roads, for example—are likely to remain in the public sector in the long run. Moreover, the private sector may also need a stronger public presence if demand is insufficient. However, achieving this will require both facing issues of finance and tackling persistent institutional challenges in public provisioning.

The financing issue is intimately connected to Latin America’s relatively low tax effort and relatively high debt burden. As discussed in Chapter 9, raising taxes in ways that minimize both efficiency costs and regressive effects is central to a more equitable development path, provided that resources are used effectively. User charges that reflect costs can make an essential contribution, although this has to be balanced with distributional objectives (see below).

Effective use of resources in the infrastructure sector depends equally on institutional problems. Resolving agency-related hurdles and avoiding the clientelistic use of utilities—two factors that were important motivations for privatization—remain major challenges for the public sector. “Obras” (public works) are still a classic tool of patronage. Institutional reforms can bring gains in terms of efficiency and equity under public auspices, especially if actions are taken to separate policymaker from provider under a strong agreement, increase transparency, and strengthen the direct voice of all consumers, especially those who have previously been excluded.

Indirect evidence for this process is provided again by the Bolivian case, in which the privatized La Paz-El Alto water utility was compared with the cooperative water utility in Santa Cruz. It performed better, but the gains were significantly smaller than those seen in a before-and-after comparison. Another example from the same sector is the Lima water company known as SEDAPAL. Even though the company has so far remained under public ownership, it has undertaken a series of reforms (including with regard to corporatization and outreach) and has achieved substantial improvements in both efficiency and access. On the other hand, a recent review of experience in the regulation of municipalized water companies concluded that many adhere to a clientelistic model, although at local levels (Foster 2003). That review also argues for the need to improve and expand civil society, strengthen regulation (as well as civil society’s knowledge of regulatory decisions and processes), and align central finance with the realization of regulatory goals.

**Strengthening privatization processes and regulating private production**

While assessment of the effects of privatization on efficiency and equity provided here is substantially more positive than that provided by opinion surveys in Latin America, there are nonetheless key areas where improvements can be made. Privatization in principle facilitates the separation between policymaker and provider, but remains susceptible to informal and “revolving door” ties and to excess power on the part of the provider. Independent regulators have to be part of the solution, at least in noncompetitive sectors, but they largely do not yet perform the central role of protecting the public interest, especially when governments and operators have a common interest in high profits and associated high taxes (Estache 2003). However, classic problems of regulatory capture or relative weakness remain, especially in the context of large private firms with highly qualified, well-paid staff. Ensuring the legal,
CHAPTER 7: POLICIES ON ASSETS AND SERVICES

budgetary, and staffing independence of regulators can help. In Argentina, for example, a stronger legal framework for electricity and gas regulators was associated with better regulatory performance than that seen in other sectors (Estache 2002, Foster 2003).

Also important is the process of privatization itself. The post-privatization market structure is influenced by the extent to which an activity has natural monopoly characteristics, but can also be affected by design. It is now recognized that the process of electricity privatization in Chile (as was the case in Great Britain) created firms with substantial monopoly power, and thereby missed an opportunity to create a more competitive market. It is a fact that once a system is privatized, it can be harder to change the structure. This not only increases economic (and perhaps political) influence, but can make the task of any regulator more difficult.

Complementary to design specifics are questions of transparency and participation, in both the privatization process (in order to support measures to minimize corruption) and in production. Such questions can involve participatory engagement by groups with weak influence. For example, the case of water privatization through Águas Argentinas involved a redesign of the approach to access after complaints were heard on the local level (Estache, Foster, and Wodon 2002). Factors such as openness, the presence of watchdogs, and independent analysis as a means of increasing public information and debate are also important. Participation can reduce incentives for collusion between providers and policymakers (potentially in both public and private models). In France, the indirect expression of voice—via the potential to vote out mayors who fail to design effective agreements with local water companies—provide an example. Publishing and explaining regulatory decisions, establishing appeals processes, and involving consumers can help increase the independence of regulators, despite the fact that consumer involvement has generally been low in Latin America (World Bank 2003a).

**User charges and subsidies**

User charges that cover costs are essential to the financial viability of utilities in both the public and private sectors. However, the extent to which specific charges reflect costs needs to be balanced against the distributional objectives of assuring basic levels of supply to all groups. Should such distributional goals be handled by the general tax and benefit system? There are in fact good arguments for explicitly including equity considerations within the pricing policies of utilities: most societies view at least some infrastructure services as basic needs, and so are concerned with actual consumption of utility services; general welfare systems are far from perfect; and paying attention to social concerns may be essential to the social acceptance of private production (Gómez-Lobo and Contreras 2000).

As noted above, during the 1980s, many utilities had pricing policies that were bad on both efficiency and equity grounds. Prices did not cover costs, but subsidies rarely reached the poor, who typically did not have access to services. Regressive subsidy policies have persisted in some cases, especially in some public utilities. In Mexico, electricity subsidies are large (substantially greater than the flagship poverty-focused Oportunidades program) and regressive, if somewhat less so than in the past.

Subsidies to ensure access to and basic consumption levels by the poor are desirable, but pose challenges with regard to targeting that are common to the social sectors (see Chapter 9).
Although discussion of design details is beyond the scope of this chapter, some general points can be made here.

It is generally desirable to have low connection fees in order to encourage uptake, as well as subsidies to encourage basic levels of consumption. If the fiscal position of a country allows, it is also desirable to include subsidies in the public budget, so that utilities don’t have to cross-subsidize by “taxing” other consumers (as is the case in Chile, for example). However, doing so will not always be feasible, especially in cases in which the fiscal position is tight. In assessing the pre-crisis performance of privatized utilities in Argentina, Estache (2002) argues that efficiency gains were insufficiently passed on to consumers, and that cross-subsidies for poorer groups are likely to be necessary in any practical solution. The Colombian water utilities finance subsidies through higher tariffs for richer consumers, for example.

It is therefore clear that choices exist between subsidizing categories of consumption (as in the case of lifeline tariffs, that is, basic tariffs at low rates) or categories of consumers, which would include an assessment of the capacity of different consumers to pay for services. For example, Chile makes use of a national proxy-means test (known as the ficha CAS) to determine water subsidies, reaping substantial savings from spreading the administrative burden of means assessment across many programs. Colombia has a geographic targeting system, based on the classification of a geographic area within a municipality into one of several socioeconomic strata. Despite this apparently less precise method, the Chilean and Colombian schemes have similar targeting properties: both are progressive, but both make significant errors of exclusion and inclusion (Gómez-Lobo and Contreras 2000). Subsidy design should therefore be shaped around the characteristics of a country and a particular service, and subject to regular monitoring and evaluation.

7.4. Conclusions

This chapter has focused on assets in three major areas: education; property rights, land, and housing, and infrastructure. Discussions on each area have emphasized the intimate links with institutions (in the broad sense that the word is used in this report). These three areas are undoubtedly significant in any quest for greater equity, and there are strong complementarities between them. However, this is not a comprehensive list of aspects that should be explored; other areas related to asset formation are also important, and health is one important omission here. Although this chapter could only sketch issues and options in these three central areas, it has nonetheless supported the view that a major, serious, redistributive effort to promote asset distribution is indeed feasible, and substantial scope exists for asset creation strategies that are good for both growth and equity. Making sure this happens will both require and support critical, complementary changes related to equalizing political action and social agency, and potentially help shift the cycles of inequality from vicious to virtuous.
Notes

1 Paulo Freire (1970) is a classic example.

2 Some biases are inherent in these patterns, since poorer, less educated people on average lead shorter lives.

3 See Table 4.2 in de Ferranti and others 2003. These interregional comparisons are made on the basis of the Barro and Lee (2002) data set. All numbers presented for intraregional comparisons are taken from the microdata analyzed for this report; note that there are discrepancies between these sources.

4 These are the marginal returns on finishing an educational level obtained from Mincer equations, as indicated in Table A.31 in the Statistical Appendix.

5 For a brief discussion of the methodology used, see Chapter 6; for details, see Bourguignon, Ferreira, and Leite 2002.


7 The “Washington Consensus” refers to the set of market-oriented policies that were commonly adopted in Latin America in the late 1980s and 1990s. See Chapter 8 for a discussion.

8 A recent analysis of Colombia makes an adjustment for land characteristics (see World Bank 2003b). However, this leads to only a modest reduction in the Gini coefficient for land distribution from 0.93 to 0.85.

9 There is a large body of literature on this point; see Chapter 1 of World Bank 2003a for a review.

10 This synthesis is based on comments from José María Caballero. For a review, see Chavas 2001.

11 For one of many overall synthesizes, see World Bank 1993. For an approach that emphasizes the centrality of political support of the peasantry, see Teranishi 1995.


14 Just as PRONASOL was in part an instrument for gathering rural votes for President Salinas in Mexico in the 1990s, so at times was the social fund FONCODES in Peru. As with many social funds, FONCODES combined genuine success in service provision and a strong prooor orientation with the goal of maintaining political support. See Schady 2000 and Paxton and Schady 2002 for more on this and related points.

15 It is also important to note that the foundation of major successes was partly established through government projects that were launched during the Frei and Allende administrations. This was relevant in the cases of temperate fruits, relocation of dairy from the Central Valley to the south, and the development of timber for cellulose production.
See World Bank 2001a for an example of multiple paths toward rural development in Brazil; Figure 4 in de Janvry and Sadoulet 2002b on shares of off-farm incomes in six Latin American countries; and Lanjouw and Ravallion 1999.

These *avecindados* and *posesionarios* occupied land within *ejidos*, but were not formally members and therefore lacked traditional rights of land use.

This subsection is based on inputs from Marianne Fay and Anna Wellenstein.

In Uruguay, for example, 6.8 percent of the households in the bottom quintile of the population merged with other households in order to reduce housing expenses.

This includes spending by the federal government and implicit finance subsidies provided by the quasi-public pension fund and housing lenders INFONAVIT and FOVISSSTE, which are funded through loan repayments and compulsory savings (5 percent of payrolls) from private and public sector employees, respectively.

Endogeneity can arise since causation may also flow from greater profitability to the use of modern utilities. The analysis used community-level access as an instrument to deal with this issue, at least partially.

Hong Kong, Indonesia, Republic of Korea, Malaysia, Singapore, Taiwan (China) and Thailand.

Estimates from a synthesis by the IDB (2002). See also the extensive analysis of the privatization process for Mexico in La Porta and López-de-Silanes 1999, which identifies large efficiency gains in both competitive and noncompetitive sectors.

These were conducted under the auspices of the World Institute for Development Economics Research (WIDER), the IDB (2002), Chong and López-de-Silanes (2003), and the Latin American and Caribbean Economic Association (LACEA)/World Bank/IDB Network on Inequality and Poverty (summarized in McKenzie and Mukherjee 2002). For earlier work on this subject, see Galal and Shirley 1994 and Estache, Foster, and Wodon 2002.

To quantify access effects, this study estimated the “virtual” prices associated with rationing of access, by estimating the price level that would cause zero consumption.