

## The Effects of Structural Reforms on Employment and Wages

The 1990s witnessed major changes in economic policies. In the macroeconomic realm, primarily in order to reduce inflation, monetary authorities were given more independence and steps were taken to reduce fiscal deficits. Structural economic policies were aimed at facilitating the operation of markets, thereby improving efficiency and economic growth. To that end, governments reduced restrictions on international trade, lifted controls on financial systems, simplified tax systems, and privatized companies, primarily in infrastructure services, which traditionally had been managed by the state. Some countries extended privatization to pension systems, and a few introduced reforms to make labor markets more flexible.

These combined steps are usually associated with what came to be called the “Washington Consensus,” which from the early 1990s onward summarized the prevailing approach to economic policies in Latin America.<sup>1</sup> This chapter examines the effects on labor of the pro-market reforms that were adopted as part of the Washington Consensus.<sup>2</sup> The chapter describes structural reforms, their scope and impact, and the labor effects of the main reforms. It examines the extent to which the reforms have achieved the favorable effects sought by the reformers, or the unfavorable effects attributed to them by the critics.

The analysis is largely prompted by the contrast between what the advocates of the reforms

hoped for, based on what was predicted by economic theory, and the criticisms leveled at the structural reforms from various angles. In essence, the reformers expected that in the medium run these steps would lead to increased productivity and investment, which would translate into better work opportunities and higher wages. Two reasons were given for that expectation. First, the reforms would eliminate distortions and interference, which were obscuring price signals, lessening efficiency, and hindering the use of productive resources, including labor. Second, the reforms as a whole, and liberalization of international trade in particular, would stimulate the demand for labor as a factor of production that is abundant in the coun-

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<sup>1</sup> In 1990, a group of Latin American ministers of finance and economy met in Washington, D.C. with development experts and academics in a conference organized by the Institute for International Economics. In an influential article published after the conference, Williamson (1990) noted that the participants had substantially agreed on the need for a certain package of economic reforms. This package, which Williamson named the “Washington Consensus,” included greater fiscal discipline, more government spending on education and health, interest rates set by the market, competitive exchange rates, free trade policies, openness to foreign direct investment, privatization, deregulation, and respect for property rights. The Latin American economic officials enthusiastically adopted the Washington Consensus and the region witnessed an unprecedented wave of reforms.

<sup>2</sup> Although macroeconomic stabilization policies were also a part of the Washington Consensus, this chapter does not study them (see chapter 4).

tries of Latin America and the Caribbean, and hence they would increase remuneration to labor. Even so, the reformers were aware that in the short run these steps could increase unemployment and reduce wages in the sectors most directly affected.

The optimistic prospects for the medium-run effects of the reforms stand in contrast to the adverse judgments they have received, especially in terms of their impact on the labor market. One of the best efforts to gather opinions on the labor and social impact of the reforms was recently undertaken by the Structural Adjustment Participatory Review International Network (SAPRIN), which used participatory methods to examine the experiences of nine countries, three of them in Latin America.<sup>3</sup> According to this study, the effects of the structural reforms on labor have been predominantly negative:

“Domestic manufacturing sectors and employment have been hit hard by indiscriminate import liberalization [while] increased exports have failed to generate significant domestic economic activity and employment.” (pp. 174-76)

“Coupled with trade liberalization measures, financial-sector reforms have had a particularly devastating impact on small and medium-sized firms and the large number of jobs they provide.” (p. 175)

“Unemployment and job insecurity have increased and working conditions have often deteriorated with the increase in privatizations and the introduction of flexibilization measures.” (p. 180)

Likewise, an ambitious participatory project recently carried out by the World Bank in 23 countries (four of them in Latin America) gathered the opinions of poor people, who clearly stated their concern about the effects of the reforms on labor. According to Narayan and Petesch (2002):

“Depending on the country, poor people mentioned privatization, factory closures, the opening of domestic markets [...] and other related changes as having depleted their assets and increased their insecurity.” (pp. 471-72)

“In all four countries of Latin America and the Caribbean, people described the economic and social devastation of their communities in the wake of macroeconomic crises and policy reforms. They

felt directly harmed by numerous plant closures, the shift to a service economy, and the rise of the informal economy.” (p. 474)

“A common theme underlies the sentiments expressed by men and women [...] in Argentina: the quality of their lives has deteriorated. In urban areas, they attribute the decline mostly to unemployment and crime. In their words, a dramatic picture emerges of the personal and social consequences of market reforms and factory closures.” (p. 335)

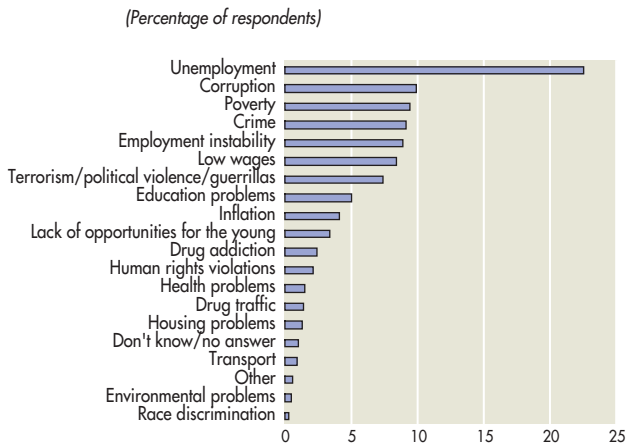
And in Ecuador, “many urban study participants say the 1990s brought deep declines in their well-being, and they express little support for the economic reforms made by the government.” (p. 400)

In general, Latin American public opinion on the reforms has not been favorable, and in recent years it has turned even more critical. In 2001, 63 percent of those surveyed by Latinobarometer in 17 countries did not believe that privatization had been beneficial for their countries; three years earlier, 43 percent had opposed privatization. Similarly, in 2001, 45 percent of Latin Americans stated that they disagreed with the basic principle of the reforms that “the state should leave productive activity to the private sector,” whereas one year previously that percentage had been only 28 percent. Although it cannot be determined directly from this survey system whether the opposition to the reforms is due to their possible effects on labor, it is revealing that according to the surveys, unemployment is the main concern of Latin Americans (Figure 5.1).

Both the forecasts of the reformers and the criticisms leveled at the reforms are somewhat exaggerated, although both sides contain significant pieces of truth. The reforms really did increase productivity and economic growth, but modestly and perhaps temporarily, conceivably because they did not reallocate productive resources, including labor, as may have been predicted on the basis of

<sup>3</sup> See SAPRIN (2002). The countries included are Bangladesh, Ecuador, El Salvador, Ghana, Hungary, Mexico, the Philippines, Uganda, and Zimbabwe.

**Figure 5.1** Survey Responses: The Main Concern of Latin Americans



Source: Latinobarometer (2001).

theory. For the same reason, except in some of the privatized industries, such as railways and ports, the reforms did not lead to massive job losses or great shifts of workers from some areas to others. The changes in the sector composition of employment, which were quite significant in some countries, do not seem to have been due to structural reforms.

While the reforms did increase productivity, they did not have the expected effect on wages, which fell in the sectors most subject to competition, especially those of lower-skilled workers. Thus, the reforms contributed to widening wage gaps, although to a lesser extent than is generally believed. Furthermore, the reforms have had a mixed impact on labor conditions. Contrary to popular fears, the new jobs that have emerged in the export sector offer better conditions than other alternative occupations. The financial reforms, far from discriminating against small businesses, are in fact helping them by driving a strong market in lending that helps such businesses and thus improves their working conditions. Previously existing jobs in the tradable goods sector have not become more unstable and have not worsened. The same cannot be said, however, of labor conditions in the privatized sectors, which are generally more demanding and offer fewer benefits than in the past, and where there are indications that the countries that opened their economies to interna-

tional competition with very rigid labor markets are registering increased employment in very small production units, presumably with inferior labor conditions. In short, the picture of the effect of the reforms on labor is full of nuances and lessons for the reformers and critics alike.

## STRUCTURAL REFORMS

The structural reforms of the past two decades reoriented policies in international trade, finance, taxation, and private sector participation in areas previously reserved to the state. Although the reforms largely shared the objective of facilitating the operation of the market, this section shows that they varied substantially from country to country in their composition, depth, and application.<sup>4</sup>

Sector or microeconomic reforms complemented macroeconomic policy measures aimed at correcting fiscal imbalances and stabilizing the economy. In some countries, social policies and institutions and other areas of public administration also underwent deep reforms, but this chapter does not deal with these issues.<sup>5</sup>

### Trade Liberalization

The core of trade liberalization was the lowering of barriers to imports that formerly sought to protect domestic production, especially in manufacturing. Between the mid-1980s and the beginning of the 1990s, countries in Latin America began trade liberalization programs, with reductions of at least 15 percentage points in the average tariff rate, which fell from an average of 48.9 percent in the pre-reform years to 10.7 percent in 1999. The dispersion of tariffs was also significantly reduced, although in most countries tariffs remain higher for consumer goods than for intermediate and capital goods, and are higher for agricultural goods than for industrial goods.

<sup>4</sup> For a more detailed description, see Lora (2001).

<sup>5</sup> Chapter 8 examines social policies directly related to the operation of labor markets.

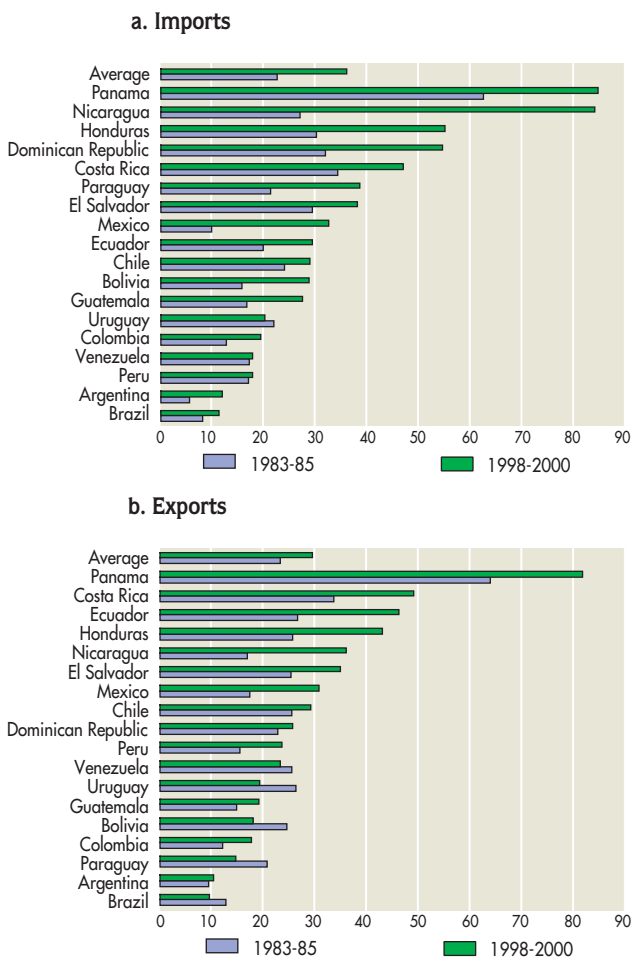
By the end of the 1990s, only two countries (out of 24 for which information is available) had an average tariff of more than 15 percent. Nontariff trade restrictions, which were applied to 37.6 percent of imports in the pre-reform period, affected only 6.3 percent of imports by the mid-1990s (IDB 1996). Lower tariff and nontariff restrictions enabled imports to rise as a percentage of gross domestic product (GDP) in most countries (Figure 5.2a). For the Latin American and Caribbean region as a whole, imports increased from 22.6 percent in 1983-85 to 36.2 percent in 1998-2000. It should be noted that during this period, export-to-GDP ratios also increased, albeit by much less, from 23.3 to 29.6 percent (Figure 5.2b).<sup>6</sup>

### Financial Liberalization

The main objectives of the financial reforms were to grant financial intermediaries greater freedom to operate and to strengthen mechanisms for prudential regulation and oversight. Liberalization consisted of lowering reserve ratios, eliminating controls on interest rates, and dismantling mechanisms of forced investment and directed lending. Between 1990 and 2000, effective reserve requirements were reduced in 15 countries in Latin America and the Caribbean (out of 22 for which data are available), and in five of them the reductions were 20 points or more. As a result, by the end of the 1990s, in 13 countries reserve requirements were no higher than 20 percent of demand deposits. Comprehensive controls on interest rates were dismantled in all the countries before 1995. With a few exceptions, however, various forms of government interference in loan agreements were retained.<sup>7</sup> Systems of obligatory investments and directed lending that sought to favor certain productive sectors, particularly agriculture and construction, were also eliminated or substantially reduced in all the countries. However, there are still obligatory investments (other than reserve requirements) in seven countries as well as credit requirements for specific sectors in five countries (out of the 21 for which there is information).

A central component of the wave of financial reforms in the region was the implementation of a

**Figure 5.2 Imports and Exports, 1983-85 and 1998-2000**  
(Percent of GDP)



Source: IMF (various years).

modern system of prudential regulation. All countries adopted the minimum capital requirements weighted by risk established by the Basel Agreement on prudential regulation. However, the application of other prudential regulations to assure adequate capital coverage was uneven, as were other aspects that determine the effectiveness of regulation and oversight. This was largely a reflection of differences in the quality of public administration and the rule of law.

<sup>6</sup> For a more detailed description of export performance in the past two decades, see IDB (2001).

<sup>7</sup> The most common forms of interference have to do with systems for calculating and paying interest, the highest levels that certain lending modalities may have, and the periods of some types of loans.

Other noteworthy components of the financial reform process were the privatization of government banks, the opening of the sector to foreign investment, and the shift toward universal banking systems, with fewer restrictions on the services and activities of banks and other financial intermediaries. In all these aspects, the process is still quite uneven across countries (IDB 2001).

### *Tax Reforms*

Far-reaching reforms were also made in the area of taxation, although they were much more uneven across countries. Their most common features were the search for neutrality, legal and administrative simplification, and increased collection. Taxes on foreign trade, which represented on average 18 percent of the tax revenues of countries in the region in 1980, were partially replaced by greater domestic collection. By the mid-1990s, they generated only 13.7 percent of total collection.<sup>8</sup> In order to moderate the distorting effects of taxation on production and savings decisions, 23 countries have adopted value-added tax (VAT) systems in order to tax consumption. Basic VAT rates range from levels of less than 10 percent in Panama and the Dominican Republic to more than 20 percent in Argentina and Uruguay. However, the effective rates of VAT collection are much less than the statutory rates, due to the exclusion of many final goods and services from the tax bases and to difficulties of administration and oversight, all of which further limit the neutrality of this tax.

Marginal tax rates on personal incomes, which in many countries were more than 50 percent, were cut drastically. Only Chile, Belize, and Barbados have maximum rates of 40 percent or more. The most common rates are 30 and 25 percent, which are in effect in seven and five countries, respectively. For reasons of fairness, these maximum rates begin to apply only for income levels that in some countries are quite high in comparison with average income levels. Tax rates on company earnings were also lowered and, with only two exceptions (Honduras and Barbados), they are less than 40 percent. The most common are also rates of 30 and 25 percent, which are in

effect in seven and four countries, respectively. Although the reforms may have improved tax neutrality, most countries still maintain tax incentives by activity, sector, or region. The most common incentives are aimed at the primary sectors and tourism.

### *Privatization*

For the region as a whole, the scope of privatization has been remarkable, but also uneven across countries. The 396 sales and transfers to the private sector carried out in Latin America between 1986 and 1999 represented more than half the value of privatization operations in all developing countries.<sup>9</sup> The largest amounts of privatization took place in Brazil and Argentina: US\$61,000 million and US\$25,000 million, respectively. Three countries carried out privatizations that cumulatively represented more than 10 percent of the GDP of their economies in 1999, and a total of 17 countries privatized more than 1 percent of GDP in a single year.

Fifty-seven percent of the amount of privatizations in the region during the 1990s took place in infrastructure sectors, which traditionally have been closed to private participation, and in which the potential for obtaining productivity and efficiency gains was great. Another 11 percent came from the sale of banking and similar entities, thus reinforcing financial reform trends. However, the composition of privatizations by sector has differed considerably across countries.

### *Labor Reforms*

As Rodrik (1996) notes, various countries in Latin America adopted more trade and financial liberalization policies and more privatizations in a short time period than the countries of East Asia did in the course of three decades. Even in the tax area, where policy changes were very uneven, the depth of the reforms was striking. By contrast with the

<sup>8</sup> Calculations are based on data from World Bank (2001).

<sup>9</sup> This leaves out privatizations carried out through massive distribution of coupons in Eastern European countries.

four previous areas of reform, changes in the labor area were fewer and lesser in scope. Only six countries implemented significant labor reforms between the mid-1980s and 1999: Argentina (1991), Colombia (1991), Guatemala (1990), Panama (1995), Peru (1991), and Venezuela (1998). These reforms were focused on lowering worker dismissal costs and facilitating temporary hiring, thereby introducing a certain mobility around the edges of formal employment.

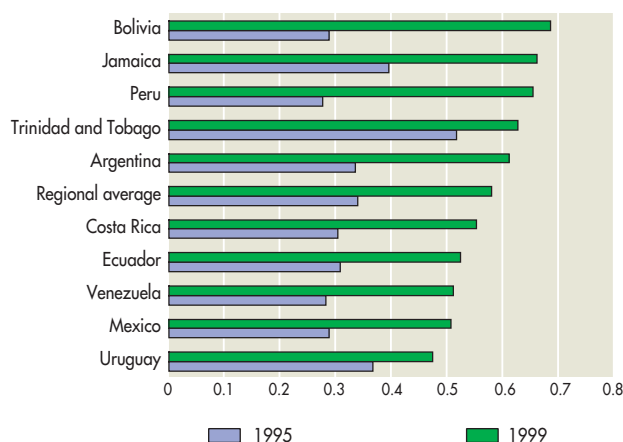
### An Index of Reforms

A system of indicators originally presented in IDB (1997) may be used to describe in summary fashion the magnitude of the reforms. The system uses a set of indices that capture the main features of the reforms just described. These indices make it possible to compare the state of the different areas of policy within a country or between countries. The total index is an average of all the reform areas and makes it possible to measure the magnitude of the reforms on a scale of 0 to 1.

The total index, calculated for 17 Latin American countries, increased from 0.34 in 1985 to 0.58 by the end of the 1990s. This change implies a significant degree of reform, although it also suggests there is still considerable and unexplored room for further reforms in many countries (up to the maximum value of 1). The most dynamic reform period was between 1989 and 1994, when 0.12 points of the total 0.24 improvement for the whole period were gained. However, reforms took place in all years and countries, although at varying paces.

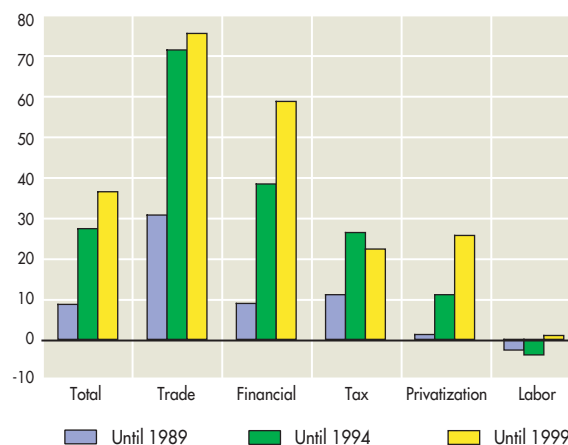
Figure 5.3 compares the state of the reforms in 1985 and 1999 for the countries with the highest and lowest indices in 1999. The five countries with the highest indices are Bolivia, Jamaica, Peru, Trinidad and Tobago, and Argentina, all of which have final index values above 0.6 and increases of at least 0.2 points over their starting situation. The five countries with the fewest reforms are (starting with the lowest) Uruguay, Mexico, Venezuela, Ecuador, and Costa Rica, with indices located between 0.48 and 0.55. However, even in this group of countries, there were noteworthy changes in comparison with the starting point; by the end of

**Figure 5.3** Index of Structural Reforms, 1995 and 1999  
(Index, 0-1)



Source: Lora and Panizza (2002).

**Figure 5.4** The Extent of Reform in Latin America  
(Margin of reform used)  
(Percent)



Source: Lora and Panizza (2002).

the 1990s, all of them were above what had been the regional average at the outset of the period.

The scope of the reforms was more unequal by area of reform than between countries. Figure 5.4 shows the magnitude of the reforms for the total and by type of reform (measured relative to the average of each index in 1985). The potential for liberalization in 1985 was attained quite profoundly in the areas of trade and finance, substantially less in the areas of tax policy and privatization, and very little in labor reform.

The reforms in trade and finance in the first half of the 1990s were deep and encompassed all countries. Hence, it is not surprising that since then the pace of change in these areas has been moderate. Tax and privatization reforms, by contrast, have been much more uneven because, although there were reforms throughout the region, they varied significantly across time and countries. All of the countries have made changes in the area of taxes in recent years—not because of lack of reforms, but because of the need for greater revenue collection, even at the expense of tax neutrality. Privatization has been most dynamic since the mid-1990s. Labor reforms have been the most limited and focused on specific issues in a few countries.

### *Have the Reforms Achieved Their Objectives?*

Although economic growth in Latin America improved over the previous decade, in the 1990s it was disappointing, and less than the averages for the 1960s and 1970s (Table 5.1). Indeed, whereas during the so-called “lost decade” of the 1980s annual growth in the region was only 1.2 percent and per capita income fell 0.7 percent, in the 1990s those rates rose to 3.8 and 2.1 percent, respectively. However, in the 1960s and 1970s, average annual growth was more than 5 percent and per capita income increased by around 3 percent. Something similar may be observed with regard to trends in total factor productivity, which are the best available measurement of efficiency in the use of the combined productive resources of the economy. In the 1990s, total factor productivity contributed practically nothing to the average growth of countries in the region, after having fallen sharply in the 1980s (when it took away around 2 percentage points of growth). Productivity improvements typical of the 1990s were not substantially different from those typical (also very low) of the 1960s and 1970s.

These results could be taken as an indicator that the reforms failed to achieve their central objective of speeding up economic growth through more efficient use of productive resources. It

should not be surprising that under such conditions the performance of employment and wages was weak. Yet it would not be right to leap directly to that conclusion. First, it should not be forgotten that these averages conceal notable differences between some countries and others in the region. In terms of per capita income, for example, 10 of the 26 countries in question performed better in the 1990s than in the 1960s and 1970s. Some countries, such as Argentina, Chile, Guyana, and El Salvador, had significant increases in the rate of growth. An equal number of countries also registered improvements in overall factor productivity, which outpaced that of the 1960s and 1970s. Second, structural reforms significantly differed from one another in depth, pace, and manner of implementation from one country to another.

Finally, it should be kept in mind that the structural reforms were not the only factor influencing productivity and growth in recent decades. In this regard, it should be emphasized that growth trends in developed countries and in the world economy as a whole, which had been encouraging in the 1950s and 1960s, fell in the following decades. In the 1990s, per capita income growth in the developed countries was the same as that of Latin American countries (1.5 percent a year for Latin America, 1.7 percent for the entire world), whereas in the 1970s it had been 4.3 percent (4.1 percent for all countries). The international context has also limited Latin American countries because of instability in the international prices of the region's typical exports and because of the major changes in the amounts and costs of capital resources for the region. Growth was also affected by the quality of macroeconomic policies and other circumstances specific to each country.

Given the multiplicity of factors that can influence growth and productivity, it is not surprising that experts have different opinions about the effects of the reforms. Empirical studies try to isolate the effects of the reforms from the possible effects of outside circumstances, such as world economic growth, the availability of financing, or international prices, or internal factors, such as macroeconomic stabilization policies or the institutional or political environment. However, some of

**Table 5.1 Growth and Productivity in Latin America and the Caribbean, 1961–2002***(Average annual percent)*

Period	Growth rate		
	GDP	Per capita GDP	Total factor productivity
1961–70	5.3	2.7	1.01
1971–80	5.5	3.4	–0.34
1981–90	1.2	–0.7	–1.95
1991–99	3.8	2.1	0.13
2000–02	0.6	–1.1	

Source: Loayza, Fajnzylber, and Calderón (2002); World Bank (2001).

these factors are difficult to measure and isolate, and in some cases they interact with the reforms themselves, thereby modifying the effect of the latter on growth. In any case, until a few years ago, the prevailing opinion on the effectiveness of the reforms was quite optimistic.

Table 5.2 presents the results of five studies that evaluate the effects of the reforms. The first three studies analyze the reforms up to the mid-1990s and have consistent results (Easterly, Loayza, and Montiel 1997; Fernández-Arias and Montiel 1997; Lora and Barrera 1997). According to these studies, the effects were positive and substantial. For example, using the previously mentioned indices of reform, Lora and Barrera find that the reforms had a significant and ongoing impact on growth, productivity, and investment. According to their estimates, until the mid-1990s, the economic reforms raised Latin America's growth rate by 1.9 percentage points (that is, to 2.2 percentage points including the impact of macroeconomic stabilization).

More recent studies point to less encouraging effects. Escaith and Morley (2001), who use a modified version of the same indices for 1970–95, also find a positive effect, although smaller in magnitude and less robust than those reported in previous articles. By using the same indices for 1985–99, Lora and Panizza (2002) make new estimates of the effects of the reforms on growth. They find that the effects were more modest and of a transitory nature because they seemed to be diluted after the

reforms were in place for some time. For example, during their high point (1991–93), the reforms increased annual growth by 1.3 percentage points. When the reform period began to slow down, the growth effect declined considerably, and in 1997–99 it entailed only 0.6 percentage points of additional growth (compared with a hypothetical situation with no further reforms; Figure 5.5). The study also finds that the effectiveness of the reforms depended crucially on the institutional environment in which they took place. In particular, the reforms seem to have had a greater effect in countries with good rule of law, possibly because it lessened uncertainty about the new rules and limited the undue interference of interest groups in the design and implementation of regulations. Loayza, Fajnzylber, and Calderón (2002) also find more modest effects of the reforms in their update of the estimates of Easterly, Loayza, and Montiel (1997).

Opening up to international trade is an area of structural reform whose effects on growth have been the subject of much debate. According to most studies that make comparisons between countries, there is a clear and positive correlation between opening to international trade and economic growth (Dollar 1992; Sachs and Warner 1995; Frankel and Romer 1999; Ben-David 1993; Edwards 1998; Dollar and Kraay 2001). Studies of domestic experiences reach the same conclusion (see a summary in Srinivasan and Bhagwati [1999]). Although criticisms have been raised about the validity of

**Table 5.2** Effects of Reforms on Growth in Selected Countries

(Percentage points)

Source	Simple average	Weighted average
Easterly, Loayza, and Montiel (1997), 1991–93 vs. 1986–90	2.2	1.7
Lora and Barrera (1997), 1993–95 vs. 1987–89	2.2	2.2
Fernández-Arias and Montiel (1997), 1991–95 vs. 1986–90	1.6	1.7
Lora and Panizza (2002), average for 1988–99	1.0	
Loayza, Fajnzylber, and Calderón (2002), 1990s vs. 1980s	1.3	

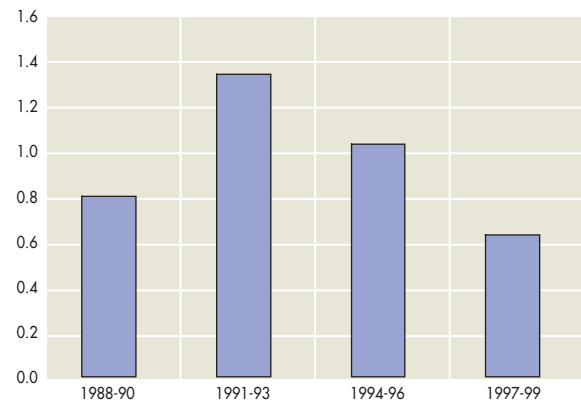
some of these studies,<sup>10</sup> no study has suggested that opening up to trade has adverse effects on growth. Studies more specifically focused on Latin America also find a positive relationship between liberalization and growth (Lora and Barrera 1997; Stallings and Peres 2000; Loayza, Fajnzylber, and Calderón 2002).

Likewise, reforms in the financial and infrastructure sectors have had positive effects when the reforms have generated a climate favorable to competition and an adequate regulatory system. According to a recent study based on the experience of 37 developing countries in the 1990s, when these conditions were met, the effect on growth of financial reform and the privatization of telecommunications was more than 2 percentage points (Mattoo, Rathindran, and Subramanian 2001). Although this estimate may exaggerate the permanent effects of these measures, it brings out the importance of having comprehensive reforms in these two areas.

In short, despite the differences between the various studies, the conclusion that can be drawn is that the reforms have had a positive but modest effect on growth. Even considering the more optimistic calculations, which place the effect at close to 2 points of additional growth, the reforms by

**Figure 5.5** Average Effect of Reforms on Growth in Latin America, 1988–99

(Percentage points)



Source: Lora and Panizza (2002).

themselves could not have raised per capita growth from -0.7 percent in the 1980s to rates around 3 percent, like those seen in the 1960s and 1970s. One of the reasons for the modest impact of the reforms may have been that they were incomplete, did not have enough internal institutional support, and took place in an unstable international environment, especially in the realm of financing, which in turn may have compromised national macroeconomic policies. This debate, which remains unresolved and is not the main subject of this chapter, nevertheless suggests that the reforms changed the operation of the economy less than is generally assumed and hence their impact on labor must likewise have been modest.

<sup>10</sup> According to Harrison and Hanson (1999) and Rodríguez and Rodrik (2001), the literature that finds a positive relationship between liberalization and growth is plagued by problems of methodology and data errors, and the results are not particularly solid in comparison with alternative specifications and data series. Rodrik (2000) likewise asserts that contrary to what is suggested by Srinivasan and Bhagwati (1999), the evidence for liberalization derived from country studies is far from overwhelming. Nevertheless, Jones (2001), commenting on the article by Rodríguez and Rodrik, shows that the standard results of a positive relationship between market opening and growth are quite solid, and that few of the results commonly accepted in the economic literature would pass the strict evidence of robustness of Rodríguez and Rodrik. Wacziarg and Welch (2002) take up the discussion begun by Rodríguez and Rodrik and find that their criticisms are valid for cross-section analyses, from which it cannot be concluded that opening helps growth. Nevertheless, time-series panel results do show high and robust effects of liberalization on growth.

The remainder of this chapter discusses the effects that the reforms had on employment, wages, and quality of work, starting from the assumption that the effect on growth was positive although modest. The discussion concentrates especially, but not exclusively, on trade liberalization and privatization, the two areas most criticized and the ones that have received the most attention from analysts.

## EFFECTS OF LIBERALIZATION

Many critics believe that policies adopted since the late 1980s of lifting controls on imports have had various adverse effects on labor. The first and most worrisome effect seems to have been loss of employment. For example, according to SAPRIN (2002, p. 55): "The decline in domestic manufacturing has followed the flooding of local markets with cheap imports that have displaced local production and goods." As a result, "many local manufacturing firms, particularly innovative, small and medium-size ones that generate a great deal of employment, have been forced out of business."

In Argentina, "many poor people also blame mechanization and competition from foreign producers for the unemployment crisis." (Narayan and Petesch 2002, p. 338) In Jamaica, "unemployment is widely viewed as the leading cause of poverty [...] People point to problems of increased foreign competition. In urban areas, people speak repeatedly of factory closings and layoffs, and in rural areas they indicate that large plantations and processing plants used to offer many more jobs." (Narayan and Petesch 2002, p. 433)

The aim of liberalization was to reallocate resources from previously protected sectors toward more efficient sectors, especially export sectors. In almost all countries in the region, exports actually did perform much better in the 1990s than during the previous decade (see Figure 5.2). Nevertheless, the prevailing opinion is that the export sector did not manage to make up for the destruction of employment in the previously protected sectors and that the jobs created have

been inferior in terms of pay, stability, and other labor conditions.

According to SAPRIN (2002, pp. 55-56): "Export growth has been concentrated in a few activities that do not create links to the local economy and has typically been very narrowly based on a few resources and items produced with low-skilled labor.[...] Employment growth occurring subsequent to trade liberalization has been no match for the volumes of new entrants to the labor market. The limited employment that has been generated is highly concentrated in export enclaves or in similar low-wage services [while] employment losses have occurred mostly in the domestic market-oriented sector."

According to Stallings and Peres (2000, pp. 200-201): "The reforms did not deliver the expected employment growth in the tradables sector [...] Only the maquila assembly plants, operating under conditions that differ from those of the rest of the economy, provided the strong growth in highly labor-intensive activities that the reforms were expected to produce."

The second issue of concern is the effect that trade liberalization had on pay for labor. The reformers expected that at least in the medium run liberalization would raise wages because of its expected effect on investment and productivity and by leading to the reallocation of employment toward the more efficient sectors. But this does not seem to have happened. On the contrary, it is widely held that liberalization lowered wages, especially for lower-skilled workers, thereby helping to widen pay inequality. According to SAPRIN (2002, pp. 55-56), after trade liberalization, "real wage rates have tended to decline, income inequality has increased, and job insecurity and 'informalization' have become more pervasive."

Goldín (1997, p. 112) notes: "Market inequality has increased in many countries of Latin America in terms of gender, age, and social class as a result of liberalization policies. Unequal terms are more profound in the countryside, however, deepening the already existing unequal relations of production." And Díaz (1997, p. 45) observes: "Economic crisis and neoliberal economic adjustment have increased social inequality throughout

Latin America, primarily by lowering median and minimum wages.”

A third criticism, closely connected to the foregoing, has to do with the low pay and quality of the new employment created out of the liberalization processes. Poor people in São Paulo, Brazil said that, “in the past, everybody worked in the factories and the wages were good. [ . . . ] but today the men often work at jobs with less security as car washers, janitors, night watchmen, construction workers, or tradesmen. Most women clean houses or offices or wash laundry in addition to their responsibilities as housewives.” (Narayan and Petesch 2002, p. 363)

Although the poor in Brazil recognize that there are new formal sector jobs, “many new jobs created in the formal sector are unskilled and low paid. While workers laid off from the manufacturing and financial sectors find these jobs preferable to those in the informal sector, these new positions do not provide an income level that allows workers to adequately support their families.” (Narayan and Petesch 2002, p. 368) Similarly, the authors make the following observation on informal employment in Jamaica: “When Jamaican farms and industries faced increased competition in global markets during the 1990s, many formal work opportunities for poor men and women disappeared. Although jobs are tighter, poor Jamaicans engage in trades, run small shops, higgie (sell) on the streets, work as domestics, drive taxis, take factory and daily farm wage jobs, fish, and migrate in large numbers to other areas of the island and overseas in search of more opportunity.” (Narayan and Petesch 2002, p. 455)

Some observers note that job creation is not only concentrated in a few activities such as the maquiladoras, but also that these new jobs have been of poor quality. According to the International Labour Organization (ILO), which has analyzed the opinions of many people and institutions related to export processing zones (EPZs), “wages, working conditions (including safety and health) and labour relations are the three areas in which there has been the most criticism about the situation of workers in EPZs.”<sup>11</sup>

The following opinion reflects concerns about the quality of work in such zones: “Millions of tex-

tile, clothing and leather workers around the world are employed in free trade zones, special economic zones designed to attract foreign investment and promote export-led industrialisation. The ITGLWF [International Textile, Garment and Leather Workers’ Federation] deplores the exploitation of workers in many of these zones, where trade union rights are often ignored.”<sup>12</sup>

Many opinions on the effects of the reforms on labor are based on comparisons between the situation before and after the reforms, and often point to specific sectors, regions, or groups of workers or companies. These comparisons are a good starting point for identifying problems, but do not provide sufficiently general proof of the effects of the reforms because they do not allow for isolating the influence of other factors that may affect the impact on labor. And they do not make it possible to know whether these observations are representative of what may have happened to a larger number of workers or companies. This type of analysis would require econometric methods available only to specialists, and extensive databases that exist only in some countries. Hence the debate is inevitably inconclusive because in many cases it is impossible to verify (or reject) whether the problems identified by observers are the result of liberalization (or other factors) and whether they are a common phenomenon. Even when data exist, the results of econometric studies may be inconclusive for technical or interpretation reasons. Despite these limitations, some conclusions on the labor effects of liberalization may be advanced on the basis of available evidence.

## *Unemployment*

It is possible that the impact of liberalization on employment was initially—and still is—the main reason for political and public opposition to this reform. There may be many reasons for such a rejection. Perhaps it is thought that imports dis-

<sup>11</sup> See ILO, [www.transnationale.org/pays/epz.htm](http://www.transnationale.org/pays/epz.htm).

<sup>12</sup> The International Textile, Garment and Leather Workers Federation, 2003, [www.itglwf.org/focus.asp?Issue=EPZ&Language=ENS](http://www.itglwf.org/focus.asp?Issue=EPZ&Language=ENS).

place domestic production, prompting companies to lay off workers, or that, although liberalization promotes exports, there may not be enough jobs created to offset the losses in the sectors that compete with imports (for example, because in some countries exports are natural resource intensive and not labor intensive). Another possible reason for expecting greater unemployment after opening the economy is that during the process of reallocating resources from sectors that are no longer viable toward those that may be so, more workers will be looking for jobs.

Figure 5.6 suggests that there is no relationship between the degree of liberalization and the recent high unemployment rates in Latin American countries. From Table 5.3, this kind of cross-section comparison does not show statistically significant correlations with other liberalization measures, such as (changes in) trade deepening rates (exports plus imports as a percentage of GDP)<sup>13</sup> or the trade balance (exports minus imports as a percentage of GDP). This should not be surprising because unemployment rates are affected by factors specific to each country, such as per capita income and the institutions that regulate the labor market. Hence, it is more appropriate to ask whether variations in unemployment rates have had a relationship with trade liberalization over time, isolating the influence of the factors that are specific to each country. Márquez and Pagés (1998b) take such an approach in their analysis of the relationship between unemployment and liberalization in 18 Latin American countries since the 1970s. They conclude that trade liberalization has no effect on unemployment.

These long-range analyses may be limited by the quality of information because in many countries, definitions of unemployment and measurement methods have changed over the years. Hence, in order to calculate unemployment rates with uniform methods, this chapter uses a battery of 85 household surveys in 10 countries in the region. Although coverage by country is irregular and discontinuous over time, the results are illustrative. The central conclusion is once more that there is no statistically solid relationship between unemployment and any of the indicators of liberal-

**Figure 5.6 Unemployment and Openness**



Note: Openness is the sum of exports plus imports over GDP. Each point in the scatter is a year for one Latin American country.  
Source: IMF (various years); IDB household surveys.

ization used (average tariff rate, trade-to-GDP ratio, trade balance, or exports or imports-to-GDP ratio). The only significant correlation found is that between unemployment and the trade balance, which suggests that both variables tend to move in the same direction (more unemployment when there is a higher trade surplus), possibly because both depend on common causes, such as the business cycle. Indeed, when the influence of the business cycle is isolated, this correlation is no longer significant (Table 5.3). Inasmuch as the results are similar when workers with different education levels are considered, there are no grounds for saying that liberalization is one of the factors helping to explain trends in unemployment rates.

This finding does not rule out that in specific cases changes in trade policy may have produced unemployment, but thus far there is no econometric evidence supporting that possibility. Liberalization may also have had transitory effects on employment levels and unemployment rates because liberalization processes have led to some reallocations of employment between sectors. In a few countries around the world, unemployment

<sup>13</sup> de Ferranti and others (2001) reach similar conclusions.

**Table 5.3** Trade Reform and Unemployment

Variable	Number of observations	Type 1 regressions	Type 2 regressions
Tariffs (average)	83	0.038 (1.05)	0.050 (1.17)
Trade penetration (exports plus imports/GDP)	85	-0.002 (-0.07)	0.035 (1.32)
Trade balance (exports minus imports/GDP)	85	0.146 (2.09)**	0.087 (1.16)
Exports/GDP	85	0.045 (1.05)	0.072 (1.48)
Imports/GDP	85	-0.081 (-1.14)*	0.039 (0.68)

\* Significant at 10 percent.

\*\* Significant at 5 percent.

Note: The dependent variable is the unemployment rate. The estimations are based on unbalanced panel data from the mid-1980s to 2001. Each coefficient comes from a separate regression in which country fixed effects are also included but not reported. Type 1 regressions also control for country trend. In addition, type 2 regressions control for GDP cycles and real exchange rate indices by country. *t*-statistics are in parentheses.

Source: IDB household surveys for the unemployment rate; IMF (various years) for exports, imports, and GDP; and Lora (2001) for tariffs.

rates have increased by about 10 points starting from the time when the economy opened up and lasting for a period of more than a decade before falling back to levels similar to and lower than initial unemployment (Rama 2001). This pattern does not seem to have occurred in the wave of reforms during the past decade in Latin America, however, because unemployment rates generally have not been higher since the time when the economy was opened up (Figure 5.7).<sup>14</sup> Nor does this pattern seem to have been common in the past, as shown by a set of studies on episodes of trade liberalization in the post-war period up to the mid-1980s. Based on the experiences of 19 countries, including six in Latin America (Argentina, Brazil, Chile, Colombia, Peru, and Uruguay), the authors note that, “based on the data and analysis of country studies it can be concluded that on the whole attempts at liberalization have not had significant transition costs in terms of unemployment.” (Michaely, Papageorgiou, and Choksi 1991, p. 80)

### Aggregate Employment

Evidently, there are no empirical grounds for attributing unemployment to liberalization. Nevertheless, there may have been adverse effects on

**Figure 5.7** Unemployment before and after Trade Reform

Source: Unemployment rates are from ECLAC (2001). *t* is the year of major reduction in tariffs between 1985 and 1999 according to Lora (2001).

aggregate employment, which would not be reflected in unemployment if the workers affected opted to leave the labor market.

<sup>14</sup> Figure 5.7 shows the trend of unemployment rates before and after the year of greatest tariff reductions, without isolating the influence of any other variable that may have affected unemployment.

A few studies have established that *controlling for product level* (and other macro variables) the lowering of tariffs reduced aggregate employment levels (Stallings and Peres 2000; IDB 1997). However, strictly speaking, these studies do not provide a basis for claiming that liberalization has reduced employment. The only thing that can be said based on them is that liberalization increased labor productivity because it reduced employment *for each product unit*. Márquez and Pagés (1998b) is the only study that analyzes this issue, and the results are quite illustrative. When controlling for the product level, the finding is the same as in the other studies, namely that liberalization had negative effects on total employment. It is estimated that an increase of 1 percent of GDP in trade flows with the rest of the world leads to a reduction of 0.06 percent in aggregate employment, a modest effect, albeit statistically significant. Inasmuch as trade deepening increased 20 percent in the average Latin American country between the mid-1980s and the end of the 1990s, employment would have fallen a total of 1.2 percent during this period as a result of liberalization, which would be a modest effect. However, controlling for the production level, this effect is reduced even further and ceases to be significant, suggesting that the effects of increased productivity and the level of production have opposite implications for employment and that, on the whole, they cancel one another out.

In the battery of household surveys assembled by the IDB for 10 countries, there is a negative relationship between tariffs and employment rates (controlling for the fixed factors specific to each country). This relationship, which stands even controlling for product level, suggests that reducing tariffs had favorable effects on employment. The other measurements of liberalization have a statistically insignificant relationship with employment rates, regardless of controlling for product level or the business cycle (Table 5.4). Consequently, no basis has been found for saying that reducing tariffs or increasing trade has lessened overall employment (although there is evidence that it caused a decline in employment in the manufacturing sector in some countries).

The scarce impact of the trade reforms on employment levels is surprising when it is assumed that imports (total imports or net of exports) displace domestic production. Although this assumption may make some sense at the micro level, it tends to lose relevance in the aggregate (see Box 5.1).

The conclusion that liberalization has scant effects on employment is consistent with the conclusion of the studies on episodes of trade liberalization in the post-war period: "The overwhelming impression [...] is that import ratios and employment were correlated either very weakly or not at all." (Michaely, Papageorgiou, and Choksi 1991, p. 76)

In short, statistical evidence does not provide a basis for saying that liberalization processes have lowered total levels of employment or raised unemployment rates. The explanation for recent high unemployment rates in Argentina, Colombia, Uruguay, and Venezuela should be sought in macroeconomic factors and labor legislation that are analyzed in other chapters in this Report. However, this conclusion does not eliminate the possibility that liberalization may have had other effects on labor. Rather, if liberalization did not cause changes in employment or unemployment, it may have been because adjustment to changes in the level and composition of demand for labor took place through the sector composition of employment, wage levels, or quality of jobs.

### *Sector Composition of Employment*

The bulk of (net) additional employment in the 1990s was created in services and commerce. The modern service sectors (electric power, water, transportation, telecommunications, and financial services) generated net employment at a faster pace than the traditional service sectors, but because of their small size, their contribution to total employment was modest. Industry and construction generated little additional employment, and employment levels declined in agriculture (Table 5.5). Within this overall pattern, the differences between countries and sectors are important. In Argentina, jobs in industries in the automotive

**Table 5.4** Trade Reform and Employment

Variable	Number of observations	Type 1 regressions	Type 2 regressions
Tariffs (average)	83	-0.074 (-2.28)**	-0.067 (-1.69)*
Trade penetration (exports plus imports/GDP)	85	0.010 (0.43)	0.002 (0.07)
Trade balance (exports minus imports/GDP)	85	-0.067 (-1.20)	-0.024 (-0.32)
Exports/GDP	85	-0.009 (-0.24)	-0.004 (-0.10)
Imports/GDP	85	0.056 (1.24)	0.014 (0.28)

\* Significant at 10 percent.

\*\* Significant at 5 percent.

Note: The dependent variable is employment. The estimations are based on unbalanced panel data from the mid-1980s to 2001. Each coefficient comes from a separate regression in which country fixed effects are also included but not reported. Type 1 regressions also control for country trend. In addition, type 2 regressions control for GDP cycles and real exchange rate indexes by country. t-statistics are in parentheses.

Source: IDB household surveys for employment; IMF for exports, imports, and GDP; and Lora (2001) for tariffs.

### Box 5.1. Imports and Job Destruction

Opposition to trade liberalization measures is usually based on the fear that imports (total or net of exports) displace domestic production and thereby destroy jobs. In its extreme form, this approach implies that there is a one-to-one relationship between imports and domestic production. A 1 percent (in terms of GDP) increase in the rate of imports should lead to a similar percentage drop in total employment (or even worse, if it is thought that industries that compete with imports use labor more intensively than other sectors). Because imports affect the manufacturing sector more intensely, there would presumably be many of job losses in this sector. Sectors that do not compete directly with imports could also be affected insofar as they produce inputs for those sectors that do compete with imports.

The fundamental mistake of this approach is to assume that any increase in imports (total or net of exports) displaces domestic production, at least partially. In practice that is not what happens, for several reasons. Many imports do not compete with, but complement domestic production (machinery or inputs not produced domestically), and there-

fore help increase production. But even those that compete do not do so perfectly, nor do they encounter rigid domestic demand. Greater imports partly generate changes in quality and other attributes of domestic goods, and partly lower costs, helping to partially or completely offset the direct effect of displacement that would occur if the domestic and imported goods were identical and demand were rigid.

A further and perhaps more important reason is that imports can raise productivity both in the sectors with which they compete and in others where benefits include greater variety, quality, or technology associated with imports. Productivity increases mean a reduction in the need for labor per product unit and hence they can be seen as another factor in employment loss. However, productivity increases make it possible to reach broader markets, both domestic and foreign, thereby partially or completely offsetting possible employment reductions and allowing for higher pay for labor. Finally, an increase in imports may extend possibilities for production and consumption of goods that previously did not exist, opening employment opportunities.

**Table 5.5** Employment Growth by Sector in Selected Countries, 1990s*(Average annual percent)*

Sector	Argentina	Brazil	Chile	Colombia	Costa Rica	Honduras	Mexico	Panama	Uruguay	Venezuela
Agriculture, hunting, forestry, and fishing		0.2	-0.8	0.7	0.5	2.9		-2.3		1.3
Mining and quarrying	-5.4	-6.3	-1.9	-6.1	4.1	-6.3	0.0	1.6	4.7	-0.6
Manufacturing	4.8	-0.7	-0.4	-0.1	0.4	6.1	5.3	2.7	-4.3	1.7
Electricity, gas, and water	1.2	-2.2	3.5	-0.5	-0.3	-0.1	5.2	-3.6	-2.2	0.0
Construction	12.6	2.1	3.9	2.0	3.7	7.2		12.1	1.4	4.1
Wholesale and retail trade, restaurants, and hotels	9.5	3.3	3.7	3.3	5.3	7.6	7.2	4.9	1.1	6.0
Transport, storage, and communications	8.3	1.5	4.4	3.8	7.7	1.1	7.3	4.3	-1.5	4.5
Finance, insurance, real estate, and business services	13.2	-3.5	1.4	6.0	6.1	7.4	1.1	9.0	4.3	2.6
Community, social, and personal services, government services	11.1	2.7	4.6	4.1	3.4	1.9	6.4	3.4	-4.4	3.6
Total	9.2	1.5	2.4	2.4	2.9	4.3	6.8	3.2	-1.7	3.6

Note: Data for Argentina, Mexico, and Uruguay are for urban areas only.

Source: IDB household surveys.

sector were massively destroyed; in Brazil, employment in grains dropped by one-fourth; and in Mexico, there was a significant decline in employment in livestock and grains. In other sectors, the declines were less significant or employment increased (in chemicals and grains in Argentina and intermediate industry in Mexico).<sup>15</sup> Were these changes in the composition of employment the result of liberalization or other factors? For example, the abundant supply of foreign capital during a part of the decade ought to have reduced the prices of tradable goods vis-à-vis services, promoting increased employment in the latter. Similarly, technological change could have led to changes in the composition of employment.

Liberalization does seem to have affected industrial employment, albeit by a surprisingly small amount in view of the extent of reductions in tariffs and other mechanisms for protecting industry. Consider the case of Mexico, where, as in most countries in the region, tariffs and import controls were cut sharply. The average tariff fell from 23.5 percent in 1985 to 12.5 percent in 1990, and the maximum tariff dropped from 100 to 20 percent during the same period, while import licenses, which were formerly applied to 92 percent of

imports, covered only 20 percent in 1990 and have covered even less since then. These major changes in protection had little effect on sector employment: based on data from industrial establishments, for every percentage point decline in tariffs, employment throughout manufacturing fell by an estimated 0.02 to 0.03 percent, and hence declines in employment were minimal (Reventa 1997). Other studies have found equally modest effects, which were concentrated among factory workers because employment in administrative activities showed practically no change (Feliciano 1994; Hanson and Harrison 1999). The explanation lies partly in the fact that the adjustment took place through wages and partly because tariff reductions had little impact on production in the affected sectors.

In Colombia, the liberalization of the 1990s also seems to have had little effect on industrial employment. It dropped markedly during the 1980s, despite tariff and nontariff protection, and deepened only marginally after the tariff reduction

<sup>15</sup> For a more detailed description of these changes, see de Ferranti and others (2001).

in the early 1990s. This phenomenon was partly the result of the trade opening that helped lower the price of capital in relation to labor. Other factors operating in the same direction were the appreciation in the exchange rate and increased payroll taxes (Cárdenas and Gutiérrez 1997).

By contrast, in Uruguay, tariff reductions seem to have had a strong effect on industrial employment, which is reasonable considering the small size of the economy. It has been estimated that in Uruguay, for every percentage point that protection was reduced, industrial employment fell between 0.4 and 0.5 percent in the same year (Rama 1994). With a reduction of some 20 points in tariffs from the mid-1980s until the end of the 1990s, liberalization may have caused a 10 percent drop in industrial employment.

Although each case may have been different, the effects of liberalization on industrial employment seem to have been small for the average of the 18 countries analyzed in the Márquez and Pagés (1998b) study. According to their calculations, for every percentage point decline in the average tariff, industrial employment fell between 0.2 and 0.3 percent. With a 30 point decline, as was typical in Latin America, industrial employment fell between 6 and 9 percent. Alternatively, for every 1 point increase in trade flows, employment in industry declined between 0.1 and 0.14 percent. These calculations do not take into account the indirect effect of trade or tariffs on the level of industrial production. If this effect were also adverse, the result would be a greater decline in employment. However, when this effect is incorporated, declines in industrial production are found to be less, again suggesting that liberalization did not have the destructive effects on industrial production (and thereby on employment) that are often attributed to it.<sup>16</sup>

Liberalization may have had greater effects on agricultural employment. However, as noted in a study by the Economic Commission for Latin America and the Caribbean (ECLAC) based on the experience of nine countries, “the most important transformations in the agricultural sector resulted not only from the reforms, but also from processes that began at least a decade earlier. The most sig-

nificant were the incorporation of new technologies, reduction of cultivated land, increased land dedicated to livestock and forest plantations, and employment decline.” (Stallings and Peres 2000, p. 179) Consequently, although liberalization may have caused significant labor displacement in some agricultural operations that were exposed to competition, it would be a mistake to think that this was the main cause of the decline in employment in agriculture. Unfortunately, few econometric studies have attempted to calculate the effects of liberalization on the agricultural sector because for this sector, unlike manufacturing, the information on production and employment needed for such measurements is not available.

What is known for certain, however, is that the catastrophic predictions of displacement of employment, which were based on calculating the labor requirements for agricultural goods that could not compete internationally, have not come true. It was feared that the North American Free Trade Agreement (NAFTA), which forced Mexico to sharply reduce protection for corn and other farm products, would cause the displacement of up to 15 million workers (de Janvry, Sadoulet, and Davis 1997). Actually, what happened was unexpected: the areas devoted to corn, the product most affected, expanded and although productivity declined, there was only moderate displacement of labor. However, income from production fell and environmental sustainability may have deteriorated in some areas (Nadal 2000).<sup>17</sup>

In short, although some sectors suffered loss of employment as a result of a reduction in tariffs and other import protection, the general changes in employment levels were minor, both in the

<sup>16</sup> See also Tybout (1996) on Chile in 1979-86. This case, like that of the other developing countries, shows that the sector composition of industrial production is insensitive to changes in policies to protect against imports. Likewise, Michaely, Papageorgiou, and Choksi (1991), on the basis of 19 episodes of liberalization in developing countries, show that trade liberalization has little effect on reallocation or loss of employment. Indeed, employment increased in practically all the cases examined, including Brazil between 1965 and 1973 and Peru after the 1978-79 liberalization.

<sup>17</sup> However, other factors counteracted this decline, notably the support of the Procampo program and an appreciation in the real exchange rate (de Janvry, Sadoulet, and Davis 1997).

aggregate and in the sectors in which protection was reduced. However, these conclusions refer to net changes in employment, behind which are concealed large flows of employment creation and destruction. Although it has not had a major impact on levels of aggregate or sector employment, liberalization may have affected the flows of employment creation and destruction, and hence employment stability. This point is important given the perception of labor insecurity among many Latin Americans. According to *Latino-barómetro* surveys of 17 countries in 2001, 63 of every 100 people thought that they were very likely to lose their jobs.

### *Employment Stability*

Liberalization seems to have had a modest effect on the extent of reallocation of employment between sectors of production. In their analysis of the experiences of 25 countries at different stages of development (13 of them in Latin America), Seddon and Wacziarg (2001) find that the extent of changes in the composition of employment between the major sectors declined after trade liberalization.<sup>18</sup> In their examination of subsectors of manufacturing industry, they do find that the recomposition of employment increased after liberalization, but the estimated effects were small and statistically weak.<sup>19</sup>

Similar results are found in an analysis of the industrial sector in 11 Latin American countries based on data from surveys of manufacturing establishments between 1985 and 1998. There is no relationship between trade reform and the extent of reallocation of employment between industrial subsectors.<sup>20</sup> And there is no relationship with the other areas of reform studied in this chapter (the indicators of reform in all cases are the indices described in the previous section; see Table 5.6). However, there are differences across countries. For example, in Colombia, an increase in the rate of reallocation of employment between industrial sectors is indeed found, starting from the year when the major reforms for opening the economy were introduced. Before liberalization, 19.7 percent of industrial employment was reallocated each

year, but the rate increased to 23.5 percent after liberalization,<sup>21</sup> primarily because companies were more sensitive to their own circumstances, as opposed to changes that they shared with other companies in the same subsector.

The fear that liberalization and globalization in general are making employment permanently more unstable finds support in the positions of noted academics, like Rodrik (1997), who argues that globalization has made the demand for labor more unstable because of increased competition between domestic and foreign markets and because companies can turn to imported inputs as a way of lowering production costs. Because companies now find it easier to substitute imported for domestic inputs and can even go outside the firm to contract a major portion of the production process, production tends to be more unstable and this greater instability tends to fall on workers, especially those with lower skills who are easily replaceable.

The empirical evidence does not sustain the claim that liberalization will permanently have such a destabilizing effect on Latin America.<sup>22</sup> In Brazil, no evidence has been found that employment or wages have become more sensitive to variations in export and import trade (Paes de Barros, Corseuil, and Gonzaga 1999). In Chile, Colombia, and Mexico, where Rodrik's hypothesis has been studied more explicitly, no coherent evidence has been found that trade liberalization policies or various measures of trade deepening are behind the changes observed in the elasticity of employment demand. According to the authors of the study, "if

<sup>18</sup> This is based on the one-digit classification in UNIDO's ISIC system. The changes in employment composition (or rate of reallocation of employment) are the sum of increases minus declines in employment in each sector, divided by total employment in all sectors.

<sup>19</sup> UNIDO three-digit ISIC classification.

<sup>20</sup> ISIC three-digit classification for manufacturing industry sectors, according to UNIDO data.

<sup>21</sup> These values are the average rates of reallocation of employment in 1978-91 and 1992-2000, respectively, based on statistics reported by Medina, Meléndez, and Seim (2003). The difference between the two rates is statistically significant at 1 percent.

<sup>22</sup> However, this claim may be valid for the United States, where the elasticity of demand for factory labor doubled between 1979 and 1991. For a short overview, see Brown (2000).

**Table 5.6** Structural Reforms and Employment Reallocation between Manufacturing Sectors

Variable	(1)	(2)	(3)
Structural reform index	-0.018 (-0.039)		
Trade index		-0.011 (0.018)	
Privatization index			0.006 (0.034)

Note: The dependent variable, change in sector of employment, is measured as the sum of employment changes (in absolute values) between manufacturing sectors (according to the three-digit ISIC classification), relative to total employment in the manufacturing sector. The estimations are based on unbalanced panel data from the mid-1980s to 2001. The regressions use data for 11 countries in Latin America. Standard errors are in parentheses.  
Source: UNIDO for change in sector of employment and Lora (2001) for the indexes.

globalization is making the lives of workers more unstable, it is probably through other mechanisms.” (Fajnzylber and Maloney 2001)

### Wage Levels

There is no empirical basis for claiming that greater openness to trade permanently worsens the wages of all workers in a country. However, international evidence suggests that wages may drop initially with liberalization and that some groups suffer significant losses of income.

Because increased openness to trade tends to increase the productivity and income levels of countries, wages should be expected to rise more rapidly in countries that are more integrated internationally. The growth pattern of wages in a sample of 70 countries from all regions of the world backs that presumption: in those developing countries that were more open to world trade, average real wages in the 1990s were 30 percent higher than in the 1980s; in those that were less open, the increase was only 13 percent; and the percentage for developed countries was around 20 percent (Figure 5.8).<sup>23</sup>

However, although openness to trade may help increase wages, the effect is not instantaneous. According to the calculations in Figure 5.9, a trade increase of 1 percent of GDP tends to be associated with an initial 0.3 percent decline in wages. It is only after the third year that, on aver-

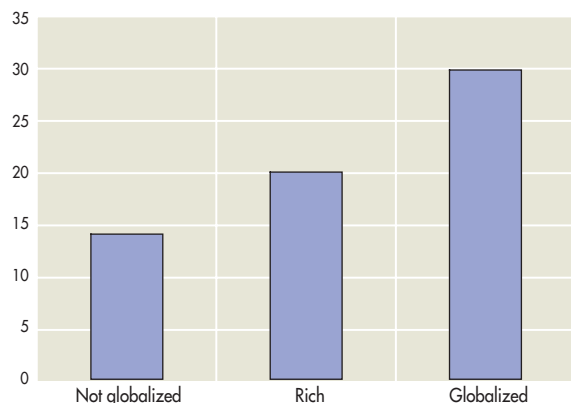
age for the 70 countries considered, wages increase.<sup>24</sup> According to these estimates, an increase of 20 percentage points of GDP in trade penetration, which was the average in Latin America, could explain an initial 6 percent drop in real wages if it happened all at once. It is important to note that these calculations have to do with changes in the degree of penetration of imports and exports, and hence they do not necessarily reflect the effects of tariff reductions. Moreover, these results should be received with caution because they may be skewed by the presence of reverse causality, as an initial drop in wages may facilitate greater trade.

Using a battery of 78 household surveys for 10 countries, an effort has been made to verify the negative influence of trade on real wages. This effect also occurs in Latin America, but only in tradable sectors (agriculture and industry), not in services. When the effect of the business cycle on wages is isolated, the elasticity obtained is similar to that estimated for the world (-0.3). It also stands taking into account the (negative and significant)

<sup>23</sup> Nevertheless, these statistics do not demonstrate that increased trade caused higher wages; both could be the result of other factors.

<sup>24</sup> Although these estimates seem to be of the “before and after” type, they do not suffer from the methodological problems mentioned at the outset of this section because they are based on numerous observations, thereby making it possible to isolate the fixed effects associated with each country, occupation, and year. See Rama (2001).

**Figure 5.8 Growth in Wages by Type of Country, 1980s to 1990s**  
(Percent)



Note: Sample includes 70 countries around the world.  
Source: Rama (2001).

**Figure 5.9 Increased Trade and Wages over Time**  
(Percent change in wage level)



Note: Sample includes 70 countries around the world. Values show the change in wages after a 1 percent of GDP increase in trade.  
Source: Rama (2001).

**Table 5.7 Real Wages and Trade Penetration**

Variable	(1)	(2)	(3)
Trade penetration effect on tradables <sup>a</sup>	-0.204 (-2.09)**	-0.321 (-3.05)***	-0.299 (-2.78)***
Trade penetration effect on nontradables <sup>a</sup>	-0.001 (-1.42)	-0.002 (-2.08)**	-0.002 (-1.97)**
GDP trend <sup>b</sup>		0.062 (0.95)	0.068 (0.40)
GDP cycle <sup>b</sup>		0.606 (2.55)**	0.424 (1.67)*
Real exchange rate index			-0.142 (-2.03)**

\*\* Significant at 5 percent.

\*\*\* Significant at 1 percent.

<sup>a</sup> Trade penetration is measured as imports plus exports over GDP.

<sup>b</sup> GDP trend and cycle are calculated applying Hodrick and Prescott filters to the GDP time series.

Note: The dependent variable is (log) real wages. The estimations are based on unbalanced panel data from the mid-1980s to 2001. Values are estimated using fixed effects for country and sector. The sample is 85 surveys for 10 countries with nine sectors in each country. t-statistics are in parentheses.

Source: Household surveys for the dependent variable; IMF (International Financial Statistics) for independent variables.

influence exercised by devalued exchange rates on wages (Table 5.7). On the basis of available information, it cannot be determined whether these effects on wages tend to be corrected over time.

Some studies of individual countries have focused on analyzing the effects of lower tariffs on wages in industry (rather than the entire economy). In the case of Mexico, it has been estimated

that in the companies that were affected by a 40 point drop in tariffs, real wages fell between 8 and 10 percent. For the manufacturing sector as a whole, it is calculated that the tariff reductions in the late 1980s caused a 3-4 percent drop in wages. The elimination of quantitative controls on imports may have had an even greater effect, but it is difficult to quantify with precision (Revenga 1997). In

Colombia, where the average tariff fell from 50 percent in 1984 to 13 percent in 1998, the effect on the average wage in manufacturing was also 3-4 percent;<sup>25</sup> in the industrial sectors that were initially protected, the effect may have been as much as 7 percent. In addition, increases in import penetration may have had some additional effect on industrial wages (Goldberg and Pavcnik 2001). Due to their short time horizon, the studies do not provide a basis for saying whether these wage drops were permanent or whether they would tend to be diluted over time and with the changes in productivity prompted by liberalization.

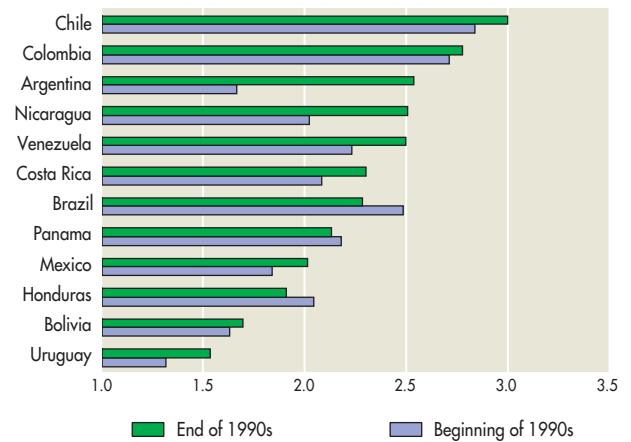
It is perhaps surprising that the effects of liberalization on wages have been relatively pronounced in comparison with the modest changes in employment and its composition. There is no definitive explanation for this phenomenon, but one possible hypothesis is that workers were sharing in the rents (and inefficiencies) that protection afforded companies. The lowering of tariffs could be accommodated without major changes in employment by improved productivity and elimination of those rents.

### Wage Gaps

The impact of liberalization measures on wage gaps has been one of the most studied aspects of the structural reforms of the past decade. The issue arouses interest because the increase in wage gaps between skilled and unskilled workers has been striking in some countries and was unexpected by many economists, who had predicted that lowering tariffs would increase the demand for unskilled labor, and hence would help narrow wage gaps (see Box 5.2).

The widening of wage gaps caused by education has been significant, although less pronounced than is sometimes claimed. Comparing the wage incomes of workers with a university degree with those with a high school diploma, the gap increased by 10 percent in the 1990s (average for 12 countries in the region), which is a modest increase. However, if workers with a university degree are compared with those who have completed elementary school, the increase was 7 percent. By contrast, if the calculation is between workers with a high

**Figure 5.10 Wage Gap between Workers with Complete Tertiary vs Complete Secondary Education (Percent)**



Source: IDB household surveys.

school diploma and those who have completed elementary school, a slight reduction in the gap over the entire decade may be noted. For example, in the case of the gap between university and high school, Argentina and Nicaragua display significant increases (53 and 24 percent, respectively), whereas Brazil, Honduras, and Panama had modest reductions (Figure 5.10). In several countries, the trend toward wider gaps that were observed at the beginning of liberalization has halted or reversed in recent years. In Mexico, the trend stopped after 1994, when NAFTA went into effect, and in Colombia, the sharp increase early in the 1990s was completely reversed in subsequent years.

Many studies have examined the relationship between the wage gap and the process of opening up to international trade in the past few decades. Although various studies establish a significant relationship between the two variables, there is consensus that the influence of liberalization on the wage gap has been modest and indirect, possibly reflecting the influence of technological change. (However, as is discussed in greater detail in chapter 6, this conclusion is far from overwhelming.)

<sup>25</sup> Goldberg and Pavcnik (2001) report a value of 4 percent, but it is based on the assumption that the tariff is entirely eliminated.

**Box 5.2. Trade Liberalization and Relative Wages**

The theory of international trade is based on the classic principle of comparative advantage articulated by David Ricardo. According to that principle, a country tends to export those goods that more intensively use the resources in which it is more abundant (and hence that are relatively cheaper) than in the countries with which it trades, and to import goods that use more intensively those resources that are scarcer (and hence more expensive). Both countries come out ahead in this exchange because they both receive a relative price for the goods exported (in terms of the other good) that is greater than what the exchange ratio of these goods would be when traded within the confines of each country.

If the only two factors of production were unskilled and skilled labor, developing countries would be expected to export goods that are intensive in unskilled labor and import those that are intensive in skilled labor. As a result of trade, the wages of unskilled workers in developing countries would be higher and closer to those of their peers in developed countries than they would be without trade, and the wages of skilled workers would be less (and also closer to those of their peers in developed countries).

In this conceptual framework, when a developing country restricts international trade (through tariffs or other devices), it necessarily lowers the relative wage of unskilled workers (and raises that of skilled workers). Hence, liberalization should be expected to reduce the wage gap in that country.

This conclusion does not necessarily hold, however, if there are more than two factors of production, or if the world does not divide neatly into two groups of countries. If natural resources are considered an additional factor, the relative abundance of factors in a developing economy may not be in unskilled labor, but in these resources. Liberalization would increase income from these sources, but not necessarily the relative wages of unskilled workers. Indeed, if natural resources require skilled rather than unskilled labor for their production, liberalization would widen the wage gap.

Other assumptions may likewise change the outcomes. What would happen if a country's capital endowment were not fixed but changed thanks to liberalization (for example, because liberalization attracted foreign investment or increased domestic investment rates) is relevant for Latin America. If capital complements skilled labor but replaces unskilled labor, greater investment would widen the wage gap.

The results would also vary depending on whether pre-liberalization tariffs sought to provide greater protection for those industries that make intensive use of unskilled labor, as was the case in various Latin American countries. Under such conditions, lowering tariffs would tend to lower rather than raise the relative pay of unskilled workers.

Hence, based on the classic theory of international trade, the conclusion that liberalization reduces the wage gap is assured only under rather restrictive assumptions.

The case of Argentina is especially interesting because it had the largest increase in the wage gap between university-educated workers and those with a high school education or less during the 1990s. Because the relative supply of university-educated workers has been increasing, the increase in the gap means that there is considerable demand pressure for workers with this level of education. Economic studies are in agreement that greater import penetration influenced this trend, although in a rather limited way. Greater import penetration of industrial goods explains only 10 percent of the increase in the wage gap favoring workers with a university education between 1992 and 1999 (see Galiani and Sanguinetti [2000] and Sanguinetti, Arim, and Pantano [2001]).<sup>26</sup> Although these studies have established that in sectors where import pen-

etration was greater, the wage gap increased more, they do not clearly show why. The most common explanation is that greater competition from imports induced companies to adopt more sophisticated technologies that require relatively more skilled labor.<sup>27</sup>

In the cases of Colombia and Costa Rica, there is also evidence that liberalization helped widen the wage gap in industry by increasing relative demand for more skilled workers, apparently due to increased investment and the adoption of technologies skewed toward such workers (Cárdenas

<sup>26</sup> See also Robbins, González, and Menéndez (1997).

<sup>27</sup> This explanation is consistent with the fact that the wage gap has increased more in those sectors that have imported more machinery (Acosta and Montes Rojas 2002).

and Gutiérrez 1997; Robbins and Gindling 1999; Robbins 1996). However, there could be other mechanisms behind such processes, as will be seen in the analysis of other countries.

In the case of Uruguay, import penetration has not been found to directly impact the wage gap in industry (Sanguinetti, Arim, and Pantano 2001). There is evidence, however, that import penetration weakened the negotiating capacity of labor unions and eroded the wage advantages that used to benefit workers in the more highly unionized sectors (Cassoni, Allen, and Labadie forthcoming). Because the wage gap tends to be narrower when union power is greater, increased international trade may widen the wage gap not for technological reasons, but because it alters the negotiating power of less educated workers.

The cases of Brazil and Mexico offer evidence that greater openness to international trade does not necessarily lead to a wider wage gap. Brazil is an interesting case because with the trade liberalization that occurred between the late 1980s and the mid-1990s, the wage gap between workers with a high school education or more fell vis-à-vis workers with less education, and the concentration of all wages was reduced. Lower tariffs seem to have been the main cause of this behavior by decreasing the prices of goods that were more intensive in skilled labor and reorienting employment toward sectors that were more intensive in the use of low-skilled labor (Gonzaga, Menezes Filho, and Terra 2002).<sup>28</sup> There is evidence that the subsectors that were under increased competition from imported goods became more intensive in the use of skilled labor, but that did not bring about an appreciable increase in wage inequality (Pavcnik and others 2002; Green, Dickerson, and Arbache 2001; Carneiro and Arbache 2002).

Finally, the case of Mexico is illustrative because it combines two well-defined phases of trade liberalization since 1985: first, the unilateral decision to implement a sharp reduction in tariffs and more uniform tariffs, and second, integration with the United States and Canada, starting with NAFTA in January 1994. During the first phase, the wage gap increased, but in the second phase, it tended to decrease slightly (Robertson 2002). A por-

tion of the initial increase in the wage gap may have been due to tariff reduction because the most protected sectors tended to use low-skilled and highly unionized workers (Revenga 1997; Hanson and Harrison 1999).<sup>29</sup> However, there are few indications that this was the predominant effect. There is little relationship between the extent of the changes in tariffs and the changes in product prices or in the wage gap between high and low-skilled workers in companies in the affected sectors. However, there is a relationship between the wage gap in different companies and the weight of exports in their sales or indicators of the adoption of new technologies (Hanson and Harrison 1999).<sup>30</sup>

In the second phase, the relative price increased for goods that were intensive in low-skilled labor, which is consistent with the narrowing of wage inequality. This could be explained by the fact that in this phase, tariffs on such goods were lowered further, and because Mexico exports to the United States and Canada goods requiring more low-skilled labor than those it imports from those countries (Robertson 2002). Integration with the United States affected the wage structure, not only through changes in tariffs, but also through greater direct investment in Mexico, especially in the maquila sectors and through the geographical relocation of industrial employment (see Box 5.3).

Nevertheless, another possible explanation for the slight reduction in wage inequality in Mexico is that liberalization has different short and long-term effects. The increased inequality that may occur in the initial phases is not necessarily a per-

<sup>28</sup> Although Blom and Vélez (2001) find a strong trend toward a wider wage gap between workers with advanced education and those who have completed secondary school, they attribute 60 percent of this increase to asymmetrical expansion of the education system and only 40 percent to a displacement of demand toward more highly-skilled work. But, as de Ferranti and others (2001, p. 146) note, "even this 40 percent seems not to be related to trade liberalization per se."

<sup>29</sup> In Brazil and Colombia, greater tariff reductions also occurred in sectors that were intensive in unskilled labor and were more protected (Pavcnik and others 2002).

<sup>30</sup> In Brazil, there is also a positive relationship between export performance and the behavior of wages by sector (Pavcnik and others 2002). Chapter 6 provides a more detailed discussion of the solidity and interpretation of these results, which may not be sufficient proof of the influence of technology on the wage gap.

### Box 5.3 Mexico: Effects of Integration with the United States on Employment

Integration between Mexico and the United States did not begin with the signing of NAFTA in 1994. It has in fact been an ongoing process that has influenced the labor market in both countries. The most important transmission channels of the process—at least for Mexico—include the *maquiladoras* and migration to the United States and various regions in Mexico.

The expansion of the *maquila* plants accounted for more than 50 percent of the widening of the wage gap between skilled and unskilled workers at the end of the 1980s, and it has continued to exert substantial pressure because the foreign-owned *maquila* plants—like other enterprises with investment from the same source—demand higher-skilled workers and pay better than domestic companies in the same sectors. In fact, foreign-owned companies pay skilled workers 21.5 percent more and unskilled workers 3.3 percent more than domestically-owned companies pay. This may be because the foreign-owned companies use better technologies, which raise the productivity of their workers, or because they attract more productive workers or benefit from rents that they share with the workers.

Integration with the United States has influenced the geographic distribution of labor opportunities in Mexico. In 1980, five years before the first phase of trade liberalization, 46 percent of employment in manufacturing was located in Mexico City and 21 percent in the states bordering the United States. By 1993, Mexico City's share had fallen to 29 percent and the border states had reached 30 percent. By 1998, four years after the signing of NAFTA, Mexico City held only

23 percent of manufacturing employment and the border states had 34 percent. Moreover, in the past decade, manufacturing employment throughout the country has clustered along the transportation routes toward the United States (including highways, railways, and ports) and has declined in the less connected areas.

The relocation of industrial employment has reflected trends in relative wages between regions: wages in the border areas have increased in comparison with the interior, and those in the better connected regions have increased more than those in more remote regions. With greater integration with the United States after NAFTA, the importance of these factors has grown and, along with it, inequality in wages between regions.

Labor migration toward the United States has had significant effects on the Mexican labor market (and, of course, on the U.S. labor market). At least since 1990, the historic rates of emigration from Mexican states have been strongly correlated with rates of growth of wages, thereby suggesting that emigration exerts an upward pressure on wages in states where the labor force is decreasing through this behavior. Likewise, the incomes of those who stay behind in those states increase as a result of remittances from relatives in the United States; it is estimated that each Mexican emigrant transfers approximately US\$2,500 in remittances per year to his or her country.

Source: IDB (2002); Hanson (2003); Meardon (2003).

manent effect, as suggested by Chile's somewhat longer experience. Chile's liberalization began in 1973 and deepened during the 1980s. Wage inequality—measured by the ratio of pay between the highest-wage 10 percent and the lowest-wage 10 percent—increased from around three-to-one in the early 1970s to almost five-to-one in 1988, but from that point it began to decline until it returned to close to the starting point (de Ferranti and others 2001, p 143). This suggests that changes in labor remuneration are an economic signal to which producers respond by introducing technologies that allow for more efficient use of costly human resources, and to which individuals respond by investing in those types of education that are best rewarded by the market.

Regardless of whether the effects of liberalization on wage gaps are permanent (about which there is still little evidence), the most important conclusion of all these studies is that liberalization and inequality do not necessarily go hand in hand. This is the conclusion also reached by the few examinations of common patterns in the influence of liberalization in various countries. An econometric study based on a panel of household surveys for 18 countries in the past two decades finds no evidence that liberalization processes have had a discernible effect on the wage gap between education levels (Behrman, Birdsall, and Székely 2000). The authors observe the effects of both tariffs and trade penetration on the wage gap, without distinguishing between industries. By contrast, a study that

includes Argentina (1986-99), Brazil (1982-99), Chile (1966-99), Colombia (1982-99), and Mexico (1987-99) finds that the wage gap by subsector of the manufacturing industry has common patterns of behavior that are associated with changes in the demand for labor, possibly for technological reasons. First, increases in the wage gap occurred within sectors and in the same sectors in all countries. Second, the intensity of this phenomenon was related to the import penetration of inputs and capital goods of those industries. Third, the increase in the wage gap proved to be more sensitive to the technological content of those imports than to their penetration (Sánchez-Páramo and Schady 2003).<sup>31</sup> This evidence notwithstanding, the extent of these effects is modest and it could even be consistent with phenomena other than technological change.<sup>32</sup>

These conclusions about Latin America are not surprising in light of world experience. Indeed, although wage inequality has increased in many countries over the past two decades, this phenomenon has not been shown to be explicable by changes in trade liberalization policies or by the volume of trade flows.<sup>33</sup> Although evidence available for previous periods is limited, an analysis of import liberalization experiences up to the mid-1980s concluded the following: “No clear patterns emerge. The presumption that liberalization is bound to worsen income distribution, making the poor poorer, is not borne out.” (Michaely, Papa-georgiou, and Choksi 1991, p. 103)

### *Quality of Employment*

Although the effects of liberalization on total employment or on the relative pay of major groups of workers seem to have been modest, liberalization may have affected the quality of work. Has liberalization replaced employment under good conditions of social protection in traditional industry with jobs where social security is weak and there is little compliance with labor standards? Are the new jobs being created in the export sector of poor quality?

It is true that the traditional ways of hiring labor have been partially replaced by new arrangements, such as subcontracting services and tempo-

rary employment.<sup>34</sup> However, trade has played no more than a marginal role in this process, whose real driving forces have been technological and organizational changes on the labor demand side and pursuit of greater flexibility, especially for female labor, on the supply side.<sup>35</sup> The assumption that nontraditional ways of hiring harm workers or are associated with “precarious” jobs is not necessarily correct. First, new forms of hiring may be better suited for some workers, and second, non-traditional practices do not necessarily take away social security services or other benefits.

It is likely that greater exposure to international trade will induce firms to make greater use of more flexible methods of hiring labor. If international trade means that firms are exposed to more unstable and unpredictable demand, it is reasonable for them to seek to depend less on a stable workforce whose hiring and dismissal costs are higher than having temporary workers (or workers connected indirectly through providers who operate informally). Based on a theoretical model justifying such a decision, Goldberg and Pavcnik (2003) analyze its validity for Brazil and Colombia from the mid-1980s to the end of the 1990s. These two countries are interesting because their liberalization coincided with the loss of legally protected employment in the manufacturing industry (defined by the proportion of workers with a labor

<sup>31</sup> The last two points could only be established for Chile, Colombia, and Mexico. The technological content of imports was measured by research and development spending in the countries of origin of these imports.

<sup>32</sup> For example, as discussed in chapter 6, the change in the structure of employment within sectors may be due to a recomposition of firms and not necessarily to the adoption of technologies skewed toward skilled work in existing firms.

<sup>33</sup> Freeman and Oostendorp (2000) analyze wage inequality by occupation on the basis of information for 150 countries between 1983 and 1998 and find no relationship to trade policies or to the volume of trade flows. For a summary of the evidence on the effects of international trade on wage gaps in developed countries, see Brown (2000).

<sup>34</sup> For the case of Mexico, see Maloney (1998).

<sup>35</sup> Trends toward temporary and seasonal employment in agriculture have been common throughout Latin America and date back at least to the 1980s, associated with the expansion of agroindustry and seasonal export crops, such as fruits and vegetables (Kay 1995).

contract in Brazil, and those enrolled in social security in Colombia). Moreover, in both countries, the rise of unprotected employment in industry was due almost completely to changes *within* industrial subsectors (and not to changes in the composition of employment *between* sectors). Therefore, it could have been due to common patterns in the behavior of companies in some sectors, possibly in response to liberalization. However, in Brazil unprotected employment did not increase more in those sectors that were more exposed to competition. In Colombia it did so, but only until a labor reform was introduced to make the hiring and dismissing of new workers considerably more flexible. Therefore, the fear that liberalization worsens the quality of employment might be valid only in countries with more rigid labor systems.

Partial evidence from a broader group of countries provides support for such a conclusion. On the basis of 69 household surveys in 11 countries in the region, Table 5.8 shows how changes in tariff rates affected the employment rate in companies with more than five workers. Ignoring differences in labor legislation, there is a negative, albeit insignificant, relationship between tariffs and the employment rate (controlling for other factors that may affect the composition of employment). This suggests that for the average of the countries considered, lower tariffs seem to have increased the share of employment in companies with more than five workers. In considering the interaction between tariffs and labor legislation (measured by the labor reform index described in this chapter), the relationship between liberalization and employment composition seems to depend strongly on such legislation. For the countries with the most rigid labor markets in the region, such as Venezuela and pre-reform Colombia, the share of employment in companies with more than five workers tends to rise with tariffs (in the hypothetical case of a country with the greatest rigidity observed in the various aspects of labor legislation, this elasticity could rise to 0.7). Hence, in these cases there seem to be grounds for the fear that liberalization lessens the weight of companies with more than five workers, although that is not the case for countries with more flexible labor markets.

The econometric results set forth in Table 5.8 also indicate that these effects are not limited to the manufacturing sector because they can also occur in the service (nontradables) sector. This fact may be consistent with the conceptual framework of Goldberg and Pavcnik (2003) because liberalization may prompt manufacturing companies to subcontract with small companies to perform services that they used to handle internally. However, there may be other ways to explain this relationship. For example, greater ease in purchasing imported equipment may help service companies to become organized in small units in those countries where labor legislation is more rigid. However, as suggestive as this evidence might be, it should be taken with caution because it comes from databases that are uneven over time and between countries, and whose level of detail is insufficient for specifying the extent, solidity, and sources of these effects.

### *Employment in the Export Sector*

According to ECLAC, the new export patterns in the region follow essentially two models: one based on agricultural and natural resource exports, characteristic of a number of South American and Central American countries, and the other based on manufacturing exports that are intensive in low-skilled labor, characterized especially by *maquiladoras* in Mexico and some Central American and Caribbean countries (Stallings and Peres 2000). Hence, it is enlightening to focus on evidence on the quality of work in these two sectors.

Liberalization processes have encouraged the expansion of nontraditional agricultural export goods. In Costa Rica, nontraditional agriculture increased from 8.7 percent of agricultural production in 1984 to 16.3 percent in 1998, thereby contributing to the rapid growth of the agricultural sector in that period (6.2 percent annually). The new goods use capital and skilled labor more intensively than traditional agricultural products (but not more so than the industrial sector). The effect on the quality of employment has been twofold. Salaried employment has risen more rapidly than other forms of employment (4.2 percent compared

**Table 5.8** Tariffs and Employment

Variable	(1)	(2)	(3)	(4)
Tariffs	-0.107 (-1.38)		0.733 (2.54)**	
Tariffs * labor reform index			-1.412 (-3.14)***	
Tariff effects on tradables sector		-0.219 (-1.06)		1.093 (2.29)**
Tariff effects on nontradables sector		-0.220 (-2.17)**		0.489 (1.24)
Tariffs * labor reform index effect on tradables sector				-2.251 (-3.00)***
Tariffs * labor reform index effect on nontradables sector				1.171 (-1.80)*

\* Significant at 10 percent.

\*\* Significant at 5 percent.

\*\*\* Significant at 1 percent.

Note: The dependent variable is the employment rate in firms with more than five workers. The estimations are based on unbalanced panel data from the mid-1980s to 2001. Values are estimated using fixed effects for country and sector. The sample is 69 surveys for 11 countries with nine sectors in each country. *t*-statistics are in parentheses.

Source: IDB household surveys for the employment rate; Lora (2001) for tariffs and the labor reform index.

with 2.7 percent) and full-time jobs in these activities have offered pay and security conditions that are relatively favorable compared with other options. Even so, unskilled labor has been concentrated in temporary work in which workers are paid less and have less stability than those who work full time (Sánchez Cantillo 2001).<sup>36</sup>

The relatively intensive use of skilled labor in full-time work in nontraditional agriculture does not seem to be unique to Costa Rica, where it might be due to high average education levels. The same pattern is observed in Ecuador, for example, where around 70,000 permanent workers are employed in the production of flowers, broccoli, and various tropical fruits, which contribute more than 20 percent to the country's total exports. In Guatemala, exports of fruits, vegetables, ornamental plants, and organic crops represent approximately 9 percent of total exports. And in the Petrolina-Juazeiro region in northeast Brazil, 30 percent of the labor force is employed in growing tropical fruits and other nontraditional farm products. In some of these areas, these new operations have replaced extensive cattle ranching, which generated little employment, and created a demand for female labor that previously did not exist.

The low educational level of the workforce in these areas has forced producers to train workers and pay them higher wages than they would receive in alternative work in order to avoid higher costs for training new workers. For example, in the flower sector in Ecuador, women earn wages that are 40 percent higher than those of other rural women, and men earn a third more than they would in alternative employment in the countryside (Newman, Larreamendy, and Maldonado 2000). In Chile, wages in fruit export industries are 50 percent higher than in other jobs (Jarvis and Vera-Toscano 2001). Although health problems have arisen in various countries among those working with some kinds of nontraditional crops, a clear trend toward improved working conditions has nevertheless been noted, especially driven by the fear companies have of creating a bad image among their customers in the importing countries. That is why these companies tend to be more willing to negotiate better working conditions than higher wages (Damiani 2000).

<sup>36</sup> These trends go back at least to the 1980s and can be explained by technology.

The flower export industry in Colombia provides an example of improved working conditions partly prompted by accusations (whether well founded or not) common in the 1980s that the sector violated workers' human rights, used child labor, and caused health problems due to improper use of agrochemical inputs. To forestall such criticisms, which would be harmful to the reputation of Colombian flowers on the international market, in the 1990s, the producers' association set up environmental and social programs that have become a model for other sectors. Companies participating in these programs say that their labor turnover rate is only 1 or 2 percent. An informal survey shows that workers in this sector, mostly women, felt satisfied with their working conditions.<sup>37</sup>

Small producers of nontraditional crops in Guatemala in the area of Sacatepéquez export vegetables through cooperatives that provide the producers technical assistance and training. For the community as a whole, producing nontraditional crops for export has been associated with considerable improvement in living conditions and the economic situation. Nontraditional crops have generated many jobs for the community, and most workers interviewed said that if they had more money or more land, they would use it to produce more crops (Hamilton, Sullivan, and Asturias 2001).

Nevertheless, the effects of the good labor conditions and poverty reduction produced by vegetable exports in Guatemala have not occurred in other cases of agricultural export development. In Paraguay, exports of cotton and soybeans from large plantations have contributed to the displacement of peasant crops, and little employment has been generated for poor workers. In Chile, fruit exports have resulted in a hybrid pattern in which the generation of employment has favored poor workers, but changes in land tenure structure have harmed them (Carter, Barham, and Mesbah 1996). This variety of experiences offers important lessons on the labor and social implications of agroexport development (see Box 5.4).

The *maquilas* (also known as export processing zones or free trade zones) have been a dynamic source of job creation in many countries (Table 5.9). In Mexico, *maquila* employment increased

from 118,000 people in 1980 to 446,000 in 1990, and to more than one million after 1998 (1.2 million people in 2001). In 1998, *maquila* employment represented 14.6 percent of employment in the manufacturing sector and 2.6 percent of all employment in the economy. In the four border cities where this activity is concentrated (Ciudad Juárez, Matamoros, Nuevo Laredo, and Tijuana), the *maquila* plants generate 43 percent of total employment and 53 percent of female employment. In the Dominican Republic, free trade zones employed 500 workers in 1970. In 1988, this number had risen to more than 85,000 people, and hence 4 percent of total employment in the country, and by 1996 it was more than 164,000 people. Similarly, in the English-speaking Caribbean countries, assembly plants are a significant source of (primarily female) employment.

The *maquila* plants did not arise from the structural reforms considered in this chapter or from the free trade agreements, which basically have not changed the competitive dynamic of the *maquila* plants (Sargent and Matthews 2001). They were started in Mexico in 1965 to replace the opportunities lost with the end of the farm labor program with the United States. In most countries, the *maquila* plants are a legacy of the former import control mechanisms and other policies that, by isolating domestic industry from international trade, impeded the development of exports. The dynamism of assembly plants after liberalization may therefore seem paradoxical. However, the assembly plants are still being favored with special treatment, not only in the area of international trade (particularly the reduction or complete elimination of levies on the use of imported raw materials and simplified import and export procedures), but also in the area of tax incentives and a variety of other policies, from financing to labor legislation, depending on the country.<sup>38</sup> In some Central American and Caribbean countries, the expansion

<sup>37</sup> See *Los Angeles Times*, February 14, 2003, "Everything's Coming Up Roses for Colombia's Flower Industry."

<sup>38</sup> Madani (1999) presents a summary of incentives in nine Central American and Caribbean countries.

**Box 5.4 Lessons on the Relationship between Agricultural Exports and the Rural Poor**

Evidence from the latest push for agroexport growth in Latin America reveals variations in the impact on the rural poor. Farm-level data gathered in booming regions in Chile, Guatemala, and Paraguay demonstrate that in all three cases, the amount of labor absorbed per unit of land in the boom crop decreases as the size of the operation grows. The social welfare impact of export booms thus depends in the short run on which classes adopt the crops; in the longer run, the impact depends on the patterns of structural change that shift land between classes (and alter levels of employment). If the adoption of export crops favors smallholders, as it has in the Guatemalan highlands, then positive impacts on the rural poor will tend to be magnified, and more and more so over time if the boom renders smallholders more competitive in the land market.

In the frontier region of Paraguay, the boom in wheat and soy production has given rise to precisely the opposite interaction. The boom, which directly favors large-scale farmers who absorb relatively little labor per hectare, has occasioned a pattern of structural change over time in which the shift of land to large farms has accentuated the negative impact of the boom on the rural poor, creating a highly exclusionary growth trajectory that leaves peasants out as both producers and workers.

The Chilean experience falls somewhere in between these two cases. The fruit export boom has bypassed the traditional smallholder sector and the small-scale farm sector created from the remnants of the agrarian reform. Over time, land ownership has shifted from smallholders to larger holdings. At the same time, export crops on large farms seem to absorb more labor than the traditional crops (and farms) that they displace. Restructuring of the workforce toward more seasonal labor has probably aggravated the effects on social welfare of the partly exclusionary fruit export boom.

On the whole, competitive biases seem to be working against small-scale producers. The human capital intensity of many export crops, price-quality measurement concerns, product perishability and the resulting need for vertical integration, extended gestation periods for investments, and absence of insurance markets tend to favor medium and large-scale producers. Labor interactivity, highly fragmented holdings that make land consolidation costly, and (where they exist) contractual relations and cooperative institutions that reduce some of the other biases seem to favor small-scale producers.

Source: Reproduced with permission from Carter, Barham, and Mesbah (1996).

**Table 5.9 Employment Creation in Export Processing Zones**

Country	Year	Employment	Percentage of economically active population
Costa Rica	1992	15,000	1.24
	1996	47,972	3.59
Dominican Republic	1992	142,000	4.71
	1996	164,639	4.92
El Salvador	1991	6,500	0.33
	1996	50,000	2.10
Honduras	1991	19,000	1.00
	2000	106,000	5.01
Jamaica	1996	16,804	1.11
Mexico	1990	446,000	1.69
	2001	1,187,525	3.00
Nicaragua	2000	40,760	3.00

Source: Madani (1999); ECLAC (1999); INTAL.

of *maquila* plants may have been spurred by trade liberalization agreements, like the United States-Caribbean Basin Trade Partnership Act, which have favored producers that use inputs from the United States.<sup>39</sup> The future of export assembly plants is currently in question because of the commitment made by World Trade Organization member countries (except for those considered poor) to dismantle the differential systems that favor them.

However, although the export assembly plants are not a result of the recent liberalization processes, for many observers, they symbolize the dangers of the globalization toward which countries that have opted for trade liberalization policies are heading. The plants are accused of paying low wages, exploiting workers, discriminating against women, providing inadequate safety conditions, and hindering labor organizing rights.

Many of these criticisms may be valid in various instances, and it is the duty of the ILO and other bodies to be on guard to detect and correct irregularities. However, such accusations have not been proven on a broad scale. With regard to wages and working conditions, periodic ILO reviews show that “on the whole, wages and working conditions in EPZs (free trade export zones) compare favourably with those outside the zones.” (Romero 1995, p. 252) For various reasons, *maquila* wages tend to be higher than those received on average by the same kind of workers elsewhere: the companies are larger and are better monitored for compliance with minimum wage and overtime requirements. In some countries, such as Guatemala, Honduras, and El Salvador, minimum wages in this type of work have sometimes been better than in other activities. However, in other instances, *maquila* zones have been exempted from complying with minimum wage regulations (such as in the Dominican Republic until 1993) or have had low minimum wages (such as in Panama in the mid-1990s).<sup>40</sup>

Foreign-owned companies, which are governed by the practices of their head offices and the requirements of their customers, tend to offer productivity bonuses and other incentives aimed at attracting and keeping trained workers so as to meet production and quality targets. Anecdotal evi-

dence also suggests that pay conditions tend to improve rapidly with the experience of workers and gradually as plants become more sophisticated. Analyses of apparel plants in the Dominican Republic show that the learning curve and pay increases rise sharply during the first three years, but then tend to level off, suggesting that on-the-job training and learning are effective for improving basic levels of qualification, but not for reaching highly sophisticated skill levels (Madani 1999).

With regard to discrimination against women, the studies show that on average, pay for women workers is significantly lower than that for men. However, “ILO research and surveys provide no evidence that these disparities are due to the deliberate setting of different gender-based wage rates and emoluments [...]. Rather, they appear to be more the result of gender-based biases with respect to the recruitment and promotion of staff, which result in a severe under-representation of women in the better-paid, skilled, technical and managerial jobs.” (Romero 1995, p. 255) It may be that the characteristics of the jobs and the concentration in activities requiring little training help explain the overrepresentation of women in *maquila* plants. In fact, as the average wages in such work have been rising and approaching the national average, overrepresentation has been declining (Fleck 2001).

With regard to labor organizing rights, it is true that *maquila* plants have low rates of unionization. Although all countries in the region have legal rights for labor organizing, low membership could be due to high turnover, ineffective protection of rights of association, and workers' fear of losing their jobs, among other reasons (Romero 1995; Maskus 1997). However, there are no empirical studies supporting (or rejecting) these hypotheses.

The debate about working conditions in *maquila* plants is unlikely to be resolved by the few studies thus far available for countries in the

<sup>39</sup> According to Sargent and Matthews (2001), this has not been the case for *maquila* plants in Mexico, which are still using the same sources of inputs.

<sup>40</sup> According to Madani (1999), based on other sources; these minimum wage comparisons are for 1995.

### Box 5.5 The Relative Attractiveness of Employment in the Maquiladoras

The *maquilas* are often accused of exploiting workers. But is that criticism well founded? Sargent and Matthews (1999) thought that the workers themselves would be a valuable source of information about this debate, and so they interviewed 59 production-level workers in the Mexican cities of Ciudad Juárez and Chihuahua. The authors conclude the following:

"The majority of *maquila* workers interviewed for this study indicated that they worked in a *maquila* due to the availability of *maquila* employment. Also, the majority of people that had worked in jobs outside the *maquila* industry considered their *maquila* jobs more attractive even though

they might be receiving less in direct compensation. The majority of *maquila* workers also planned to continue working in the *maquilas*. A minority of workers indicated that they felt they had the opportunity, if they wanted, to find employment outside the *maquila* industry. This group frequently indicated that they worked in a *maquila* for such reason as the work was easier, they liked working indoors, there were more advanced opportunities, and that there was more time off. [...] The statements made by the *maquila* workers suggest that the charges of widespread worker exploitation in the *maquilas* appear somewhat exaggerated." (Sargent and Matthews 1999, pp. 224-25)

region. However, the discussion should not ignore the opinions of those who work in the export assembly plants (see Box 5.5).

### Summary: Labor after Liberalization

Liberalization was one of the major reforms of the 1990s in Latin America. It had a positive impact on efficiency and economic growth, although much less than what its advocates had expected. The same can be said about the fears of its effects on labor. Some of these effects were negative, at least in the short run, but apocalyptic predictions of job destruction and deteriorating working conditions were not fulfilled.

First, the biggest surprise that emerges from a review of empirical research on the effects of liberalization on labor is that it has not had much effect on employment allocation. This is a surprise to those economic analysts who, on the basis of the theory of comparative advantage, expected resources to move massively toward activities that were potentially more efficient and more intensive in the use of the most abundant resources. It is also a surprise for people who imagined that increased exports would displace employment in the sectors producing tradable goods.

Second, because the changes in employment composition were modest, the fact that liberaliza-

tion did not have very pronounced effects on unemployment may likewise be explained. This is also a surprise for many economists, who expected the unemployment associated with the transition of workers from some sectors to others would increase, at least initially. The fact that little employment was reallocated between sectors does not mean that companies or workers did not suffer traumas due to liberalization, or that the labor market lacked the vitality to respond to such an important policy change. On the contrary, the continual gross creation and destruction of jobs in each company and the appearance and disappearance of companies in each industry were mechanisms that helped adjust production methods and organization, change the composition of production, and reorient production toward particular markets in response to liberalization.

A third surprise is that liberalization seems to have lowered real wages, especially in industry, at least in the short run. This is a surprise for economists trained in neoclassical analysis who usually assume that wages correspond to workers' marginal productivity, and that liberalization should lead to more productive use of all resources, including labor, elimination of rents that favor capitalists, and lower prices for agricultural and industrial goods consumed by workers. What seems to have happened (although there is no direct evidence sup-

porting it) is that workers were sharing in these rents and were forced to give them up in order to hold onto their jobs. The fact that in many countries tariffs (and import controls) were higher for those sectors that were more labor intensive (especially in unskilled labor) also helps explain this paradox. Another possible explanation is that liberalization may have lowered wages in industry by allowing entry into domestic markets of goods from countries with lower production costs.

A fourth surprise, possibly the one most debated in public and academic circles, is that liberalization helped widen the wage gap between skilled and unskilled workers. Economists have paid so much attention to this phenomenon that many of them may now find it surprising that this effect was actually less pronounced than is currently believed, and that the explanation may be found more in the area of technology and other little understood mechanisms than in the mechanics of relative prices directly associated with international trade. Whatever the mechanisms may have been, however, trade liberalization does not go very far toward explaining the wider wage gap in some countries.

Liberalization produced two more surprises, both related to the quality of work. On the one hand, it is striking that the new jobs generated in the export sector are comparable in quality and pay to alternative jobs, or even better. The increase in labor-intensive exports in many countries (even before liberalization) has helped to raise workers' wages and improve their living conditions, contrary to what is often claimed. On the other hand, there is some evidence (far from definitive) that lower tariffs or greater penetration of imports has widened informal labor in some countries (understanding informal labor to mean employment without social security and other benefits, or employment in a company of up to five workers). However, this phenomenon does not seem to be occurring in all countries, but only where labor legislation is more restrictive.

The lesson from this series of surprises is one of modesty for economists and moderation for critics. At the same time, evidence is limited by lack of information, the shortness of the time period for

observing some of the effects of liberalization, and conceptual and technical barriers to interpreting the results. Moreover, the evidence is restricted by the inclinations of academic research, which do not necessarily coincide with the concerns and fears of the public. Finally, none of the foregoing surprises constitutes a rule because there are many variations among country experiences.

## IMPACT OF PRIVATIZATION ON LABOR

Privatization may entail job loss, deterioration in labor conditions, and other changes in the organization of labor for those who remain in their jobs in privatized companies. Table 5.10 summarizes the most common concerns of workers, some of which are also reflected in the following opinions on the effects of privatization:

"Unemployment and job insecurity have increased overall. Layoffs accompanied privatization across the board, and new employment generation did not always compensate for jobs lost. Privatization has fostered discontent among those workers who did not lose their jobs, because workloads have increased, employment has become less secure, and the power to organize and negotiate with employers has been weakened." (SAPRIN 2002, p.108)

"Privatization has contributed to increasing inequality. Income distribution has worsened as large numbers of low-skilled, low-wage workers have been the first to be laid off. This has been particularly detrimental to minority groups and women, who tend to lack specialized skills. Job training or other similar programs, where they have existed, have been either ineffective or insufficient to address the problems of the newly unemployed. Although new employment generated in privatized firms has tended to be better paid, these jobs have required higher skill levels." (SAPRIN 2002, p. 108)

The reforming governments were aware of the social and political risks of the job loss and increased unemployment that privatization could bring (Williamson 1990). However, they believed

**Table 5.10** Possible Effects of Privatization on Employment

Employment effects	Employment conditions	Management-labor relations
<ul style="list-style-type: none"> <li>• Reclassification of posts</li> <li>• New job patterns</li> <li>• Labor retrenchment and direct job losses</li> <li>• Gender-biased employment policies</li> <li>• Discrimination against labor representatives</li> <li>• Medium and long-term employment gains due to increased investment, growth of privatized firms, and diversification of services</li> </ul>	<ul style="list-style-type: none"> <li>• Greater job mobility</li> <li>• Diminished guarantee of tenure and job security</li> <li>• Need for retraining and skill upgrading</li> <li>• Longer working hours and/or increased workload</li> <li>• Payment by results schemes and pay freezes</li> <li>• Loss of seniority and service grades</li> <li>• Wider wage differentials with greater incentive components</li> <li>• Loss of pension rights</li> <li>• Loss of social benefits (housing, transport, childcare, and health insurance schemes)</li> <li>• Abolition of the prohibition on strikes and industrial actions</li> </ul>	<ul style="list-style-type: none"> <li>• Greater emphasis on professionalism</li> <li>• More discretionary power in making management decisions and formulating enterprise policies</li> <li>• More emphasis on strict implementation of these decisions and policies</li> <li>• Marginalization of unions' influence and bargaining power</li> <li>• More tedious wage bargaining with preferences for individual rather than collective agreements</li> <li>• Tougher stance of management on workers' performance and work discipline</li> <li>• Efficiency arguments and profit making gain importance over social objectives</li> </ul>

Source: World Bank (2003), based on UNCTAD.

that privatization was necessary in order to solve the problems of inefficiency and high cost of some government enterprises, especially in the public service sector.

### *Employment*

Employment loss has been one of the main reasons for popular rejection of privatization. Because state-run companies have often been used to create employment for political reasons, it is not surprising that cutting jobs is necessary to keep these companies viable in the private sector. Anecdotal evidence indicates the magnitude of the problem:

- Before privatization, the railway payroll in Argentina totaled 60 percent of total company revenues. In 1990, although railways were moving less than 10 percent of traffic, they were incurring losses equal to 2 percent of GDP (Birdsall and Nellis 2002; Kikeri 1998).

- In the late 1980s, 50,000 people were employed in Mexico's telecommunications company, and labor productivity was half the internation-

al standard of 10.5 workers for every 1,000 lines (Kikeri 1998).

- In 1990, AeroPeru had 2,300 employees for only six planes, almost four times the maximum industry standard (World Bank 2003).

International experience has shown that personnel reductions are common but not universal in privatized companies. In a set of 27 cases of privatization studied by various authors, 14 show declining employment after privatization (27 percent of employees on average), two show substantial reductions (amount not specified), and the rest had increases or changed very little. In a second set of 17 cases, employment was lost in seven (equivalent to 45 percent of personnel), increased in four (by 23 percent on average), and there was little change in the rest (Birdsall and Nellis 2002, based on various ILO studies). In a third set of recently privatized companies in 21 developing countries (including the most active privatizers), employment increased in 60 percent of the cases (with increases of 10 percent on average), and the companies recently exposed to competition were the

ones most likely to lose employment (Boubakri and Cosset [1996] cited by Kikeri 1998).

The intensity of the personnel reductions has differed across sectors in developing countries. The most draconian cuts have been in railways and ports, more modest cuts have been made in water and electric power, and employment has actually often increased in telecommunications (World Bank 2003).

The experience of Latin American countries illustrates the extent of employment changes in privatized companies. In seven companies privatized in Argentina in the early 1990s, approximately 113,000 jobs were lost, or 50 percent of the personnel of these companies before they were sold. The reductions ranged from 3 percent in the telecommunications company to 81 percent in railways (Kikeri 1998). For privatized companies as a whole, employment fell from 223,000 people in 1987-90 to 73,000 in 1997. This drop in employment was equivalent to 2 percent of the urban workforce (or 3.5 percent of the workforce in Buenos Aires, where most of the layoffs were concentrated). If all the workers laid off had remained unemployed (which was not the case), privatization would have been responsible for 13 percent of the increase in the unemployment rate during this period (Table 5.11). Under this assumption, privatization would have meant an 8 percent increase in the number of poor people and would have raised the Gini coefficient of income concentration by 3 percent (McKenzie and Mookherjee 2002).

Although Bolivia carried out more privatization (as a percentage of GDP) than Argentina, layoffs seem to have been substantially fewer. There are no statistics encompassing all the privatizations, but those that took place in the electric power and telecommunications industries, which were the most important ones in the 1990s, led to employee reductions of only 1,700 persons, around 0.1 percent of the urban labor force. Again, under the assumption that these people did not find jobs, these layoffs would explain only 3 percent of the rise in unemployment between 1995 and 2000.

The case of Mexico seems to lie halfway between that of Argentina and Bolivia. At the start of privatization in 1983, state companies employed

4 percent of the urban workforce; a decade later, they employed slightly less than 2 percent (McKenzie and Mookherjee 2002). In a pattern that is not exclusive to Mexico, a large proportion of the job losses took place before privatization. A study of 218 firms privatized in a variety of industries shows that approximately 50 percent of employees were laid off during the four years before privatization (La Porta and López-de-Silanes 1999). In four steel production plants employment dropped from 35.6 thousand people in 1985 to 17.5 thousand, with the largest cuts just before privatization in 1991. In the case of Mexicana Airlines, employment was cut 40 percent before privatization at the request of potential buyers (previous privatization efforts had failed because the conditions of sale prohibited laying off workers). At Ferrocarriles Nacionales de Mexico (National Railways of Mexico), employment was cut from a high of 83,000 employees in 1990 to approximately 44,000 when the privatization process began in January 1997, and between that time and June 1999 cutbacks affected another 3,000 people (La Porta and López-de-Silanes 1999).

The case of railways in Brazil was similar: employment had fallen from 110,000 people in 1975 to 42,000 in May 1995, before the pre-privatization restructuring of the company began. From that time on, approximately 18,000 more people were cut from the payroll until the company was transferred to the concessionaires, who cut an additional 14,000 workers from the payroll (Estache, Schmitt de Azevedo, and Sydenstricker 2000; Andalón and López-Calva 2001).

Labor unions, governments, and potential buyers tend to prefer that cutbacks in staffing take place before privatization. Indeed, although they are opposed to cutbacks, labor unions have more power to obtain better compensation before layoffs take place. Governments are attracted by the incentive of improving the sale price if they lower labor costs, and potential buyers prefer to avoid the conflicts and economic uncertainty that may be entailed in the layoff process. Given the many incentives, it is not surprising that cutbacks are often made before privatization. Based on a sample of 308 companies privatized in developing coun-

**Table 5.11** Employment Contraction in the Private Sector in Argentina, Bolivia, and Mexico

(Percent)

	Argentina	Bolivia	Mexico
Urban workforce in privatized sector prior to privatization	7	Less than 0.5	4
Employment cutbacks in urban workforce	2	0.13	1
Employment cutbacks before privatization in the privatized firms	75	30	50
Increased unemployment caused by employment cutbacks <sup>a</sup>	13	3	-100
Re-employment rate within the same sector <sup>b</sup>	80-90		45-50

<sup>a</sup> Values are for 1987/90-1997 for Argentina, 1995-2000 for Bolivia, and 1983-94 for Mexico.

<sup>b</sup> Within four years for Argentina and within one year for Mexico.

Source: McKenzie and Mookherjee (2002).

tries between 1982 and 2000 (101 in Latin America), Chong and López-de-Silanes (2003a) calculate that in 78 percent of the cases, job positions were cut before privatization (82 percent in Latin America). The dismissals did not affect the various groups of workers in the companies equally because in many cases the criteria for making layoffs were seniority, workers' age, or lack of training; only 32 percent of the companies (worldwide and in Latin America) used voluntary retirement programs.<sup>41</sup>

Although this section has focused on privatization, it should be noted that significant cutbacks were made in public sector employment in the 1990s in a number of countries in the region. Approximately 406,000 federal government jobs were cut in Argentina between 1990 and 1992; more than 263,000 were dismissed from the Peruvian civil service between 1991 and 1993, although 112,000 were rehired; 40,000 people were dismissed from the civil service in Ecuador between 1992 and 1994; and 12,000 were dropped from the Ministry of Transport and Tourism in Colombia between 1990 and 1992 (Haltiwanger and Singh 1999). The decline in public sector employment has been a noteworthy phenomenon in most countries in the region (Box 5.6).

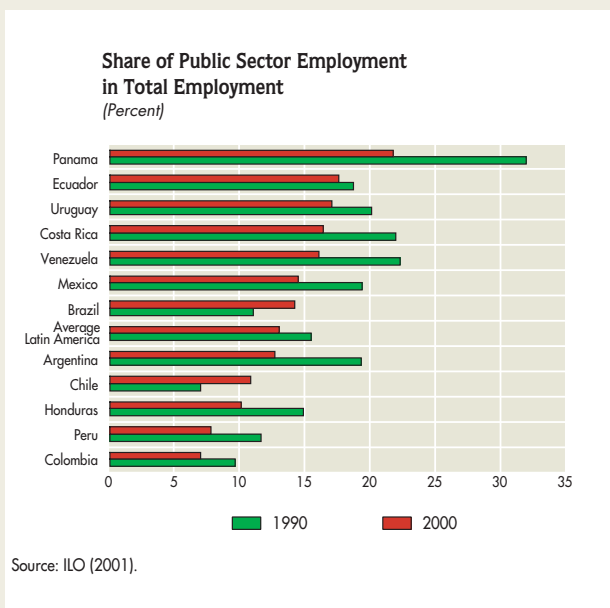
### New Jobs

Comparing employment before and after privatization can be deceptive because successful restructurings that boost productivity and enable services to be expanded may completely or partially make up for jobs lost in privatization. For example, in Argentina, the YPF oil company took a contracting approach with 210 companies formed by 5,300 former workers at the firm. Likewise, the railway company subcontracted repair work to labor-intensive cooperative enterprises. And the new telecommunications sector companies, which had laid off approximately 10 percent of the employees, rehired most of them through service contracts (Kikeri 1998; Petrazzini 1996). In Peru, around 20 percent of employees dismissed by privatization became subcontractors for the same companies, which created many small companies in transportation, water, mining, ports, and electricity (Kik-

<sup>41</sup> However, there is conflicting evidence on the effects of privatization layoffs on the sale price. Chong and López-de-Silanes (2003a) observe that labor restructurings as a rule do not help raise prices (and when retirement programs are voluntary, they clearly lower the price). But for the case of Mexico, López-de-Silanes (1996) finds that previous layoffs had the effect of raising prices by 6 percent. He also finds that transferring labor contingencies to the buyers lowered the price by 3 percent, and the prior occurrence of strikes lowered the price by 18 percent.

### Box 5.6 Public Employment in Latin America

The public sector in Latin America has been considered a privileged one for a long time for at least three reasons. First, although the pay is, other things equal, lower than in the private sector, the benefits, related amenities, and workload more than compensate for this. Second, job security has been unprecedented even in a region that has historically been characterized by dramatic labor rigidities. Third, access, power, and political clientelism have provided intangible benefits that are difficult to match in the private sector. As a consequence, in recent decades overemployment in the public sector ran rampant in the region. The structural reforms and related market-friendly policies that several Latin American countries pursued during the 1990s, along with severe cutbacks in government spending due to fiscal crises,



eri 1998). When ports were reformed in Mexico, public employment declined, but greater port activity meant that employment grew rapidly in the private companies that received concessions to provide services. Thus, the port of Manzanillo, which had 2,100 workers in 1993, had twice that number four years later, and in Veracruz, employment increased from about 6,000 workers to more than 8,000 (Estache, González, and Trujillo 2001). In the railway industry in Mexico, where cutbacks were quite large, 54 percent (23,300 workers) of those laid off during the privatization process were

were intended to put an end to this. As economies liberalized trade and deregulated markets, the public sector with its soft budget constraint was also touched.

As a consequence, employment in the public sector as a whole fell in most Latin American countries, not only as a consequence of privatization but also because of public administration downsizing. As is shown in the figure, the share of public sector employment in total urban employment fell for all Latin American countries except Brazil and Chile. However, although the average public sector share of total urban employment fell only during the 1990s, this drop hides large differences in the evolution of public sector employment within countries.

In part, these changes in employment patterns and the employment shocks suffered by specific segments of the population are behind the weak support for reform in Latin American countries. Reductions in public sector employment meant that fewer of the jobs that have traditionally been shielded from economic fluctuations were protected. The number of jobs created in high-productivity sectors was not enough to replace the jobs lost in low-productivity but formerly high-rent sectors. This fact, coupled with a modest evolution of overall productivity and the need to reduce costs was not compatible with the high cost associated with the legal requirements of entering the formal sector that resulted in dramatic relative growth in the informal sector in recent years. Hence, informal contractual relations also became more frequent. Under these adverse circumstances, many of those workers displaced from the public sector were not able to find another job with the same level of protection, earnings, and social benefits or were not able to find a job at all.

Source: Chong and Saavedra (2003); Saavedra (2003).

rehired by the new companies in the industry (Andalón and López-Calva 2001).

Thus, a good portion of the jobs initially lost in privatized companies may be offset by new hiring in the same companies or in others linked to them as suppliers or contractors of the original companies. For Argentina, it has been calculated that between 80 and 90 percent of the staff reductions in the privatized companies were offset by reemployment procedures within the same sectors in the four years after privatization (which does not mean that the same people who were laid off were

rehired). For Mexico, the rate of reemployment in the same sectors has been calculated to be between 45 and 50 percent in the first year after privatization (McKenzie and Mookherjee 2002). In their sample of 308 companies privatized throughout the world, Chong and López-de-Silanes (2003a; 2003b) find that 44 percent expanded their payrolls after privatization (54 percent in Latin America), and 11 percent rehired employees who had been laid off (21 percent among companies privatized in Latin America). The likelihood of rehiring employees who had been laid off before privatization increased substantially when the criterion for dismissal was the age of the employees; the likelihood of rehiring decreased when the criterion was workers' abilities.

### *Pay and Working Conditions*

Improved productivity resulting from privatization processes often makes it possible to raise wages and other forms of pay for the workers who keep their jobs. In Chile, the new owners of the electric power companies privatized in the 1980s (Chilgener and Enersis) raised wages and introduced profit-sharing systems. In Argentina, the real wages of the employees of Entel and the water concession in Buenos Aires rose 45 percent in the three years after privatization. In Mexico, according to a broad sample of privatized companies up to 1993, wages rose 76 percent on average, which was far more than in the rest of the economy (Kikeri 1998). Even more surprising, wages rose substantially more for workers than for office staff (122 percent compared with 77 percent in 1983-94, as calculated by La Porta and López-de-Silanes [1999]).

In many privatized companies, workers also benefited from shared ownership programs that were introduced to increase their interest in privatization. In an electric power company in Chile, 85 percent of the workers acquired shares, the price of which quintupled over the next three years. In Mexico, the Telmex union bought shares at a price close to half the basic offer price for privatization. The workers then benefited from a considerable rise in the market price. When Entel was privatized in Argentina, workers bought shares at one-sixth of the purchase price from the new owners, and by

1994 the average worker's share had risen in value by US\$25,000. These mechanisms for participation in ownership represented not only a net wealth benefit, but an incentive for workers to cooperate in improving the company (Kikeri 1998).

Even so, some labor conditions worsened during the privatization process or afterward. In preparation for privatizing Argentina's Entel, the government lengthened the workday, eliminated job security guarantees, and severely restricted the possibility of worker organization (Petrazzini 1996). In the case of Telmex in Mexico, in exchange for wage increases, workers agreed that contracts could be made uniform, employees could be shifted within the company, and service contracts could be extended to nonunionized companies (Kikeri 1998).

These organizational changes inside the companies have usually been accompanied by significant changes in labor practices, which may entail a lessening of worker well-being as a result of longer workdays and more frequent accidents and health problems, attributable in some cases to greater use of temporary contracts (World Bank 2003; McKenzie and Mookherjee 2002). There is also evidence that privatization has weakened the ability of unions to exert influence. However, in some instances, new mechanisms for worker representation have been developed, and have enhanced workers' influence on working conditions. For example, the International Federation of Chemical, Energy, Mine, and General Workers' Unions (ICEM) has reached a global agreement with Endesa in Spain to improve working conditions in all its companies, while the worldwide union of telecommunications workers has done something similar with Telefónica (both companies own stock in many privatized companies in Latin America; see World Bank [2003]).

### *What Happens to Laid-off Workers?*

Little is known about the fate suffered by workers who are laid off by privatized companies (those who are not rehired directly or indirectly by the same industry). In compensation for the losses that they might suffer, they generally receive severance

pay and other monetary benefits. According to some estimates, these compensations more than surpass the average cost of hunting for a new job (Galal and others 1994).<sup>42</sup> Fragmentary information on some companies also suggests that retirement packages have usually been generous and were voluntarily accepted by most of the workers in the companies where they have been offered. In railway, telecommunications, and steel companies in Argentina, the average compensation was equivalent to two years of wages, and in the Brazilian railways, it was three years. Although severance packages have generally represented large outlays, the evidence suggests that this practice has been the only politically acceptable alternative for correcting excess employment, and has turned out to be beneficial from a fiscal standpoint, given the savings in labor costs, transfers, and subsidies (Kikeri 1998).

A case study based on surveys of former workers in the federal railways of Brazil offers a sense of how they returned to work. Around half of those dismissed between January 1995 and October 1997 who replied to the survey were self-employed in early 1998; only 18 percent had formal jobs, 4 percent were government employees, and 13 percent were working without a legal contract. In September 1998, only 10 percent were unemployed (especially those who were older and/or less educated), but 53 percent were earning less than when they worked for the railways (Estache, Schmitt de Azevedo, and Sydenstricker 2000).

The experience of employees of the Central Bank of Ecuador who were dismissed in the 1994 reform is illustrative, although it was not a privatization and may not be representative of the employment patterns of privatized companies. Fifteen months after their dismissal, 30 percent of the 363 affected employees had jobs, 51 percent were self-employed, and 6 percent were unemployed. Of all those dismissed, after three months 43 percent were earning lower incomes than before and after 15 months, that figure had risen to 46 percent. This evidence suggests that job possibilities and pay declined for a significant proportion of those who lost their jobs (Rama and MacIsaac 1999).

It may well be that workers dismissed have

difficulty finding new jobs, especially if their abilities are specific to the work that they did in the now-privatized company, or if their training or work discipline has been neglected due to their working conditions. These difficulties may be partly remedied by training and support programs for them to return to work. In Latin America, there are examples of such programs in Argentina, Brazil, Mexico, and Peru, as well as elsewhere. Evaluations of these experiences show that their effectiveness has varied a great deal. Focused programs have generally been more effective than those with broad coverage, and programs that offer guidance for job hunting have had better results than retraining programs, which are often plagued by problems in terms of the competence of the management, the relevance of the programs, and the low learning ability of the participants.

### *Summary: Effects of Privatization*

Although substantial in relation to the permanent payroll of companies before they were privatized, the effects of privatization on the labor force or unemployment were actually modest and tended to be rapidly compensated, to a great extent by the rehiring of personnel at the same companies or their suppliers. In some cases, the labor conditions of those who kept their jobs deteriorated over the course of the process (but not their incomes). There is also evidence that health and safety conditions worsened, as did workers' ability to organize, and the influence of labor organizations. Through its impact on company productivity or family living conditions, privatization may have had other indirect effects on labor that have not been considered in this analysis. Naturally, the appropriateness of privatization cannot be judged solely on the basis of its effects on labor, and the adverse opinion of Latin Americans toward this area of reform may be only partly due to its effects on labor.

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<sup>42</sup> This study considers six cases of privatization in Chile and Mexico and other countries.

## OTHER STRUCTURAL REFORMS

The chapter thus far has discussed evidence of the effects on labor of liberalization and privatization, which are no doubt the two most visible and controversial areas of reform. Although they are less important from a labor standpoint, other reforms may also have contributed to the problems of employment and low incomes for some groups of workers. SAPRIN (2002) makes the following observations:

*“Reforms have allowed financial assets to become more concentrated. [...] Instead of helping producers that need capital to maintain or expand their operations, financial intermediaries have directed financing toward large (usually urban) firms and extended the largest share of loans to a few, powerful economic agents. This has hindered the development of small and medium-size enterprises, an important source of employment generation.”* (p. 68)

*“Important sectors of the economy and population groups have been unable to access affordable credit. Small and medium-size firms, rural and indigenous producers and women have very limited access to the formal financial system, as high interest rates resulting from liberalization and obstacles to qualifying for financing have prevented them from borrowing.”* (p. 68)

### Financial Reforms

Evidence of the effects of the financial reforms on labor is scarce and concentrated in a few countries. Although the central conclusion from the few existing studies is that small businesses and micro-enterprises are not suffering major limitations on credit because of the reforms, it is not clear whether this conclusion can be generalized.

The closing of many state banks is one of the factors that may have reduced credit for small and medium enterprises (SMEs). However, the evidence for Argentina, Chile, and Colombia shows that state banking devotes a substantially smaller proportion of its resources to SMEs than private banks do. In Chile and Colombia, this trend seems to be compounded by the fact that government banks are pursuing this market less vigorously than

private banks. Between 1997 and 2000, growth in real lending by state banks to SMEs in Chile was 19 percentage points less than that of private banking, and in Colombia it was 15 percentage points less (Clarke and others 2002). Consequently, insofar as the financial reforms have allowed for greater expansion of lending by private banks, the SMEs are being better served.

Another cause of reduced lending to small businesses could be the greater importance attained by foreign banking in Latin America. Foreign banks may have pushed domestic banks out of the market and focused on larger businesses, which could be served with less information and lower monitoring costs. Evidence provides sufficient basis for this fear. In Argentina, Colombia, and Peru, foreign banks devote an average of 21 percent of their portfolio to small businesses, whereas this rate rises to 26 percent in domestic banks. In Argentina and Chile, moreover, foreign banks grew more slowly in this market segment than domestic banks. Curiously, these differences between domestic and foreign banks are due to the smaller size of the foreign banks, because the large banks, whether domestic or foreign, tend to lend to SMEs in similar proportions (Clarke and others 2002). However, inasmuch as foreign banks have not displaced domestic banks, but have contributed to the growth of the entire financial system, their effects on SMEs would be favorable. Opinion surveys carried out with more than 4,000 companies in 38 developing countries indicate that greater penetration by foreign banks improves both the amount of credit and loan conditions for companies of all sizes. The benefits seem to be greater for larger firms, but the smaller ones also benefit (Clarke, Cull, and Martínez Pería 2001).

The evidence mentioned thus far has to do with lending to SMEs, which may be irrelevant for the poor, who can receive credit only in very small amounts. Is there any evidence that financial reform policies have hindered the development of microlending? The answer is a resounding “No.” Microlending has not only developed rapidly in the past decade in Latin America, but a good proportion of this development has taken place in the traditional financial sector. According to statistics

based on an inventory of microcredit in 17 countries for 1999, commercial banks granted 29 percent of total lending received by microenterprises. Nongovernmental organizations (NGOs) that became regulated financial entities provided another 45 percent, along with other specialized financial intermediaries. Hence, the regulated financial institutions that were almost uninvolved in microlending five years ago are now channeling 74 percent of loans to microenterprises and serving 53 percent of their customers. Although the microlending of regulated entities is made in amounts two-and-a-half times higher than those of unregulated entities, the average amount of each operation is just US\$800, which represents approximately six months of the per capita income of the countries where they operate. Consequently, the institutionalization of microlending does not seem to be leading to a diversion of the product toward wealthy sectors. Some observers believe that these trends indicate that lending to the poor is finally becoming a significant component of the menu of services of the financial system (Christen 2000).

These advances cannot be attributed completely to the financial reforms of the past decade. However, it can be said that they have undoubtedly been favored by the growth of the credit system, greater competition, an improved regulatory environment, and greater flexibility granted to financial intermediaries to develop new products and operate in diverse markets. That is what is suggested by the results of a study performed in 78 developing countries, which shows that 44 percent of the banks providing services to SMEs are motivated primarily by greater competition in the credit market for medium and large companies (Jenkins 2000). Nevertheless, the development of microlending has been uneven across countries for reasons that are not well understood. The number of microlending operations in Bolivia reaches 80 percent of the estimated population of microenterprises, suggesting that the microlending market is saturated. Indicators of coverage are also high in Nicaragua (36 percent) and El Salvador (35 percent), and a little lower but also significant in Paraguay, Peru, and Chile (between 18 and 13 percent). By contrast, in Argentina, Brazil, Mexico,

Uruguay, and Venezuela, microlending is virtually nonexistent. With the noteworthy exception of the Banco do Nordeste in Brazil, microlending has not captured the attention of the large financial entities in those countries (Christen 2000).

### *Tax Reforms and Other Reforms*

The labor implications of the tax reforms have received much less attention than the other reforms discussed in this chapter. The general orientation of the tax reforms involved simplifying tax systems, reducing tax rates on capital and higher labor incomes, and broadly extending the use of the value-added tax. However, the scope and continuity of these reforms has varied depending on the country.

Four fundamental questions ought to be asked about the effects of these measures on labor. The first is whether the reforms affected the demand for labor by making it cheaper to use capital. Some studies on Colombia suggest that in manufacturing, the tax reforms, along with other measures, made capital cheaper and reduced the demand for unskilled labor, while raising the demand for skilled labor, which complements capital (Cárdenas and Gutiérrez 1997).

The second question is whether the reforms affected labor demand by changing the incentives to work. Discussion of this issue, which has been intense in Europe and the United States, is less relevant in Latin America, where taxes are levied only on relatively highly paid workers (IDB 1998) and where few people have incomes sufficiently high so that the tax level would influence the decision of whether to work. Even so, two important aspects must be considered. First, income taxes may influence the composition and quality of employment by affecting people's decision to work as employees or as self-employed workers, and companies' decision to be organized in a transparent and consolidated way or opaquely and through small production units. Second, the level of taxes may influence high-income workers' decision to migrate and accordingly affect relative wages between skilled and unskilled workers.

The third question has to do with the effects

of tax reforms on the incidence of taxation, that is, those on whom tax burdens ultimately fall. Given the greater importance of the VAT, it might seem that workers have been harmed by the tax reforms. Indeed, it is often claimed that the VAT is a regressive tax, contrary to the income tax, which is regarded as progressive. That conclusion is not necessarily correct, however, for several reasons:

- In most Latin American countries, many basic consumption items, such as food, which weigh more heavily in workers' basic market basket, especially for low-income workers, are excluded from the VAT (IDB 1998).
- If a tax reform is not neutral in terms of total collection, tax incidence analysis must take into account the use of extra revenues collected, which tend to have greater benefits for those who receive social services. Further revenues collected may benefit workers through health and pension social security programs.
- Conventional analyses of the impact of taxes tend to assume that the cost of the VAT is passed on entirely in the price of final goods, but it does not happen that way in practice (Shah and Whalley 1991). This means that a portion of the tax may fall on the producers, or on the workers in sectors producing the goods to which the VAT is applied.

The fourth question is related to the issue of incidence and has to do with interaction between tax reforms and other reforms. The issue emerges because the incidence of any tax depends on how factor and goods markets operate. Because the other reforms changed the operation of these markets, they may be expected a priori to have modified the incidence of previously existing taxes. For example, changes in tariffs affect only the beneficiaries of import quotas and have no incidence on producers or consumers. But when quotas disappear, tariff changes tend to be shifted to both producers and consumers and thus they may affect workers. Another example is the possible effect of rationing of credit on the incidence of taxation on companies. In this case, the burden of income tax falls on those who receive rationed credit. But if a financial reform eliminates rationing, the tax will

tend to fall partly on consumers. Except for some simulation runs made with general equilibrium models, little is known about the relevance and size of these labor effects (Shah and Whalley 1991; Lora 1995).

In short, tax reforms (and the interaction of other reforms with the tax system) may have had effects on employment and the real wages of workers, but these issues have not received much attention in the heated debate on the effects of the reforms.

## CONCLUSIONS AND POLICY IMPLICATIONS

Unemployment, low wages, and labor instability are problems that concern most Latin Americans. Liberalization, privatization, and other structural reforms aimed at smoothing the operation of the market have not been sufficient to solve these problems, and it is widely believed that those very reforms may even have aggravated them.

This chapter has shown that there is no basis for some of these criticisms. The effects of liberalization and privatization on unemployment (or on total employment) were limited in scope and duration, so much so that there is no evidence (in this study or others) that these reforms help explain the differences in unemployment (or employment) rates between some countries and others, or the changes in those rates over time. Nor can it be maintained that liberalization made employment unstable or worsened working conditions in the sectors exposed to competition from imports or the new export sectors. Nor are there grounds for claiming that financial liberalization has reduced lending to small companies or microenterprises, thereby helping to aggravate labor problems.

Nevertheless, some criticisms are valid. Liberalization led to wage decreases in sectors affected by lower tariffs and increased imports. It may also have helped increase informal labor in countries where labor legislation was more rigid. Privatization caused sharp declines in earnings and instability for employees laid off from the privatized companies. Both liberalization and privatization

weakened the negotiating power of workers, contributing to lower wages and labor benefits.

These conclusions are relevant for future reforms. An important implication is that it may be impossible to determine the labor effects of a structural reform in advance. This is especially true for the lifting of restrictions on imports and other reforms in the international trade system (such as international integration agreements).

The situation described above is due not only to a lack of knowledge about the possible impact of these reforms on various sectors, but also to the nature of how the labor market works. The great fear of governments when they began liberalization processes was that unemployment would rise because it would be difficult for workers who lost their jobs in the previously protected sectors to find new jobs due to lack of job retraining or information about employment opportunities. This fear reflected a failure to see that labor markets are fluid due to high rates of job creation and destruction in all sectors, and that their fluidity would help facilitate the reforms without causing major changes in unemployment. Governments and analysts also failed to foresee that a large portion of the adjustment of the labor market to the reforms would take place through falling wages, especially those of unskilled workers in the sectors that were receiving rents due to lack of competition.

Given this lack of knowledge, efforts to compensate the losers or to ease social costs would have been inadequate. They might have focused on establishing or enhancing worker training courses or temporary minimum employment programs, as in fact happened in some countries. Had governments anticipated the true adjustment mechanisms of labor markets, they would have noticed that it is difficult to identify precisely who is losing from the reforms, and hence the effectiveness of these active policies of intervening in the labor market would have been called into question. Hence, it would have been more appropriate to bolster labor policies of a passive nature (such as unemployment insurance and other general protective measures) and to foster the creation of new jobs through reforms in labor legislation and a pol-

icy environment favorable to economic growth.<sup>43</sup>

Nevertheless, in some reforms it is possible to identify those groups of workers that may be among the losers and take steps to help them. That is the case with privatizations or programs to restructure public administration, where those affected by job loss can be helped by programs that may include a variety of active policies, from counseling and help in job hunting, to community job creation plans. The effectiveness of most of these policies depends on whether they can target specific groups of workers, although that is not the only condition for success.<sup>44</sup>

The conclusions of this chapter are also relevant for analysts and researchers. Many of the effects of the structural reforms were unexpected by economists. Liberalization may have produced favorable (although modest) effects on productivity and growth, but it did not have the favorable effects that were expected in the composition of production or employment or in labor remuneration. For reasons that have not been sufficiently studied, the sector composition of production and employment changed far less than what was expected after the modifications in the relative prices of products or the penetration of net imports. The adjustment seems to have occurred partly through falling wages, especially those of unskilled workers, who may have been sharing in the rents resulting from import protection. However, this hypothesis has not been sufficiently proven, and it is still not clear whether its validity depends on the presence of labor unions, wage negotiation mechanisms, or other factors. Researchers have paid a great deal of attention to the relationship between liberalization and widening wage gaps. The most common hypothesis for explaining it regards competition from imports (or increased exports) as having facilitated and encouraged the adoption of technologies skewed toward the use of more highly qualified labor. Nonetheless, as is discussed in the next chap-

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<sup>43</sup> See chapters 7 and 8 for a discussion of the pros and cons of various labor policies and institutions.

<sup>44</sup> See chapter 8, particularly Box 8.2.

ter, the statistical and analytical support for this hypothesis is far from overwhelming.

Economic research has devoted little attention to the labor effects of financial and tax reforms. Fragmentary evidence on financial reform indicates that its labor effects have been positive because apparently it has helped widen access to credit for small businesses and microenterprises. However, the issue has been studied too little for a definitive conclusion. There is no proof of a direct correlation between these two phenomena, and it is not known why micro lending systems have developed in only some countries. Nor is it known whether it can correctly be assumed, as is implicit

in these analyses, that lending that is aimed at more labor-intensive companies has a greater effect on aggregate employment. The gaps in research on tax reform are even more striking. Its effects on labor supply and demand are not known, little is known about its influence on the pay actually received by workers, and it is not known whether the interaction between tax reform and other reforms has changed tax incidence.

In short, the structural reform process has brought many labor surprises to reform governments and their critics and economists, teaching all concerned a lesson in caution and humility.