A Cost-Benefit Approach to Labor Market Reform

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Compared with the pace of structural reforms in Latin America aimed at liberalizing product and capital markets, labor reforms have been scarce. In many instances, when they have occurred, they have increased the level of regulation in labor markets. However, it is often argued that without further labor market reforms aimed at deregulating labor markets, labor market performance will not improve and Latin American economies will not be able to compete in international markets. But how do regulations in Latin America compare to those found in other parts of the world? What types of reforms are necessary? Is dismantling the current levels of regulation and protection the way to go?

This paper assesses labor market regulations in Latin America and briefly documents their recent history. It then examines the costs and benefits that such regulatory systems exact on labor market performance. I argue that while existing labor market regulations generate costs in terms of labor market performance, they constitute the base (albeit imperfect) of social protection policies in Latin America. Since the demand for social protection appears to be large, reforms that seek only labor market deregulation do not address this demand. Because the possible benefits of the current regulatory systems (or possible alternatives) have not been well measured, a proper cost-benefit analysis of any proposed reforms cannot be made; further research in this area

is imperative to avoid the pitfalls of poor reforms. While it is tempting to conclude that the solution lies in designing and implementing better social protection mechanisms that reduce the costs exerted by the current system, the alternatives are not exempt from costs and are not warranted to improve upon existing systems. In these circumstances, a mix of research, policy experimentation and policy evaluation can help provide a solution to these dilemmas.

The Regulation Debate

The debate on regulations and reforms is fed by the fundamental question of whether the labor market needs regulations. From the point of view of neoclassical economic analysis, with the right set of conditions in place, labor markets by themselves and without intervention would be expected to deliver efficient outcomes. According to this view, regulations are the result of political pressures that have little to do with improving the functioning of labor markets. It is argued that even if the purpose of regulators is to achieve positive social outcomes (for example, redistribution of income from employers to workers or from one type of workers to another), labor markets operating according to such a rule will malfunction, delivering high unemployment or discriminating against certain types of workers, thereby undoing the positive effects intended by the law.

Of course, whether this scenario holds true and dismantling all forms of regulation is the right reform

depends on whether labor markets are expected to deliver efficient outcomes without intervention. In an ideal situation where many workers compete for comparable jobs and many firms compete for comparable workers and where insurance and credit markets allow workers to diversify the risk of unemployment, regulations would be of little effect and would most likely worsen labor market performance. But labor markets, particularly in developing countries, do not much resemble this ideal scenario. The market for private unemployment insurance is plagued with adverse selection and moral hazard problems, and therefore private unemployment insurance is generally not avail-

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able. Consumption credits to unemployed workers are generally not available either. This situation implies that workers are forced to sustain periods of job loss with their own savings, borrowing from friends or family, or sending inactive household members to search for jobs. Because many workers do not have the resources to sustain periods of productive job search, they may be forced to accept the first job that comes their way because they cannot afford to remain without income. In this scenario, workers may not have the resources to move to where the jobs are, reducing the competition for jobs and workers in the labor market and shifting the balance of bargaining power to firms. In addition, because workers do not have the time to search for jobs that match their abilities, the qualities of the matches in the labor market may be very low, reducing current wages and the incentives to invest in training or technology that brings future productivity gains.

This argument makes it clear that there may be costs and benefits to regulations and that therefore the right approach is not to discuss when or how to deregulate. Instead, the discussion must be based on which set of institutions and regulations will improve the functioning of labor markets and whether the regulations that are already in place achieve their goals or instead need to be amended.

Labor Regulations and Labor Reforms in Latin America

Across countries, labor market regulations aim at improving the welfare of workers, regulating aspects such as pay (minimum wages); benefits and conditions of employment (vacations, medical leave, maximum number of hours worked); social security contributions and benefits; job security; and collective bargaining agreements. This paper restricts its attention to the costs and benefits of conditions of work, social security, and job security regulations, leaving the analysis of the effect of other regulations for future work.

Latin American countries started regulating their labor markets at the beginning of the twentieth century.[1] The Mexican constitution of 1917 articulated the principle that protecting workers was one of the duties of the state. By the 1930s and 1940s most countries had a labor code. Up until the early eighties successive reforms expanded the protection that the law afforded to workers. In the eighties, the debt crisis facilitated the emergence of a new policy consensus around economic liberalization; however, the path of reforms since then does not show a clear trend toward labor market deregulation. For instance, since 1985 restrictions on hiring and firing became more stringent in some countries and less stringent in others. Similarly, while many countries moved from pay-as-you-go to individual-accounts social security systems, strengthening the link between contributions and benefits, payroll contributions increased in many countries.

Working conditions and social security regulations. Labor laws regarding working conditions in Latin America are protective by international standards. Figure 1 provides a comparison of an index of conditions of employment in world regions and Latin American countries. Higher values of the index indicate a greater number of employment regulations and more protective regulations for workers. The index captures what is written in the laws and regulations of each country on the maximum number of hours in a workweek, overtime work, night shifts, holidays, hours of work, maternity leave, other types of leave, and vacation days.[2] It should be emphasized that this is a de jure indicator. That is, it does not reflect whether these regulations are enforced; it only measures conditions according to the letter of the law.

Surprisingly, less developed countries have more statutory working conditions than industrial countries do. Latin America is surpassed only by Eastern Europe and Central Asia in its level of de jure protection of workers. Within Latin America, the labor codes of Bolivia, Venezuela, Brazil, and Panama provide the

FIGURE 1

Conditions of Employment Index (0–1)
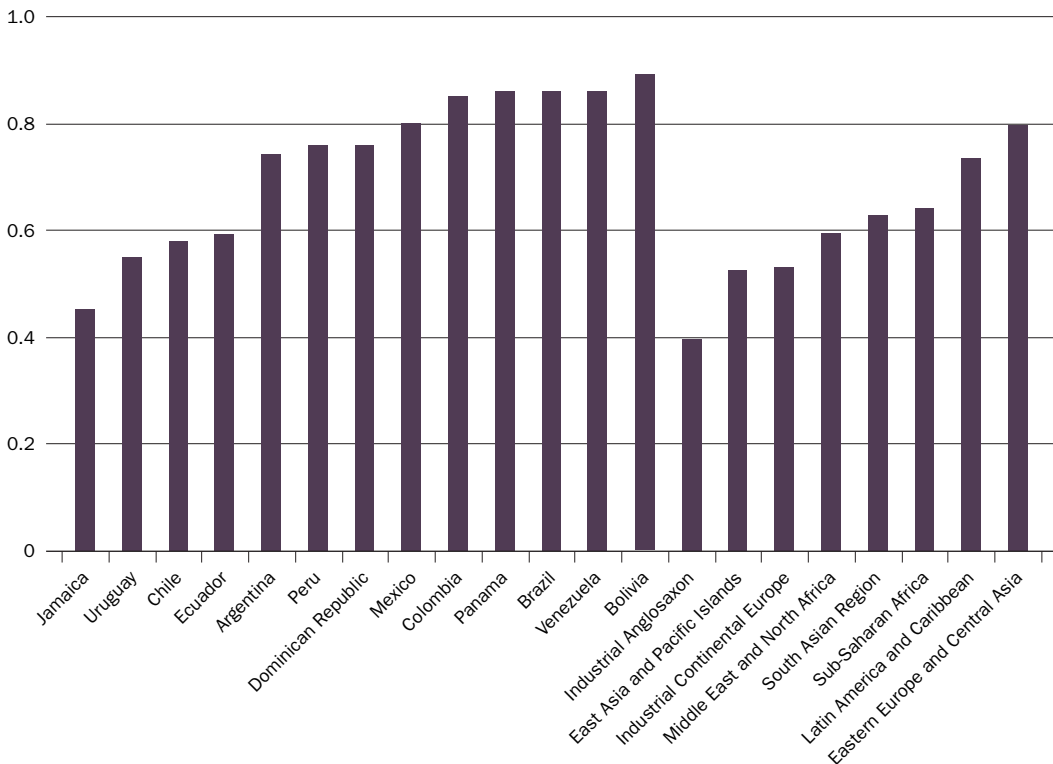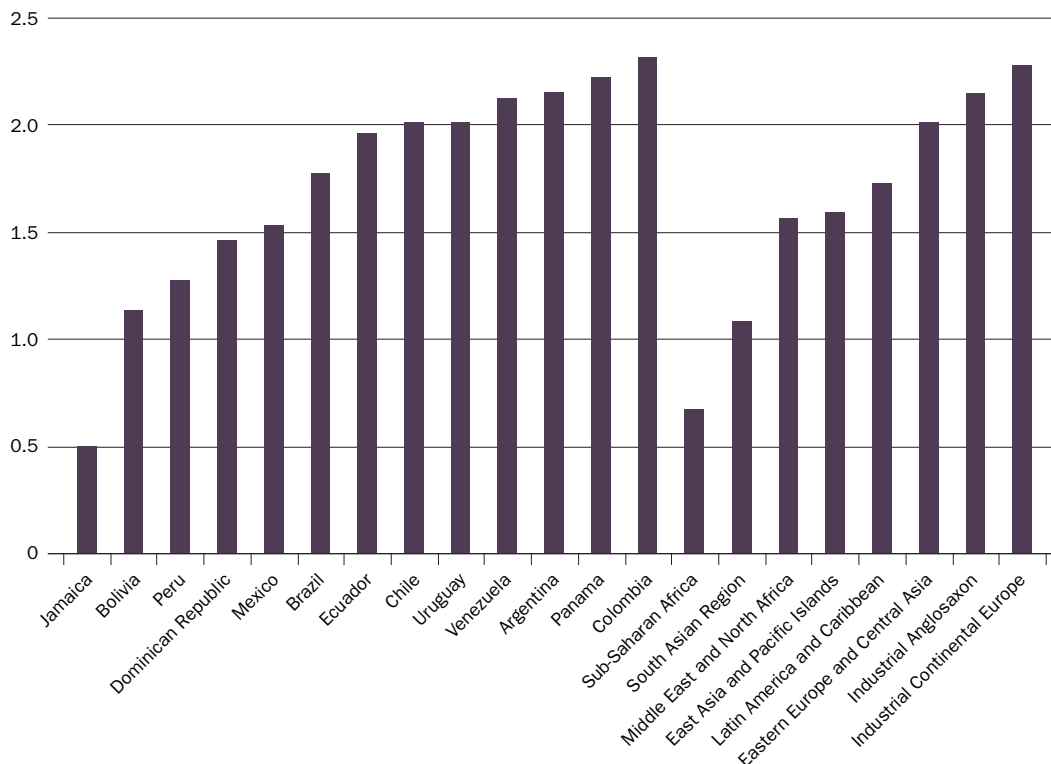

Source: Botero et al. (2003)

most protective working conditions to workers while Jamaica, Uruguay, and Chile have the least protective regulations. Across the world, regulation of employment conditions tends to be more protective in countries that are poorer and in those with a legal system based on French civil law (Botero et al. 2003).

In contrast, social security benefits (and contributions) are lower in Latin America and other developing countries than in industrial countries (see Figure 2). The social security index is the sum of three indexes summarizing benefits received from old age pensions and health, maternity, and unemployment insurance programs.[3] The index takes a greater value for programs with greater benefits and for those with greater benefits relative to con-

tributions. According to this measure, social security regulations are less protective of workers in Latin America than in other industrial countries and countries in Eastern Europe and Central Asia. However, the index for Latin America is higher than for other developing regions, including East Asia. Within Latin America, Jamaica, Bolivia, and Peru have the lowest social security benefits whereas Colombia, Panama, and Argentina have the highest level of protection, with levels that are above the average in English-speaking industrial countries.

During the nineties many countries implemented reforms that transformed pay-as-you-go systems into full or capitalization systems. However, many countries—most noticeably, Colombia, El Salvador,

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1. Lindauer (1999) brings attention to the fact that Latin American countries started regulating labor markets much earlier in their development process than industrial countries did.

2. See Botero et al. (2003) for more on calculating this measure.

3. This index is the normalized sum of the following components: the difference between retirement age and life expectancy; months of contributions required for normal retirement to qualify for health and unemployment insurance programs, if available; contributions to pensions, disability, health, and unemployment insurance programs; the replacement rate for pensions; the replacement rate for health insurance benefits; months of contributions to qualify for health insurance benefits; and the waiting period for health insurance benefits.

Social Security Index (0–3)

Source: Botero et al. (2003)

Mexico, Uruguay, and Brazil—increased the level of payroll taxes to reduce the actuarial imbalances that characterized most systems prior to the reforms and that became more acute once contributors ceased to pay for the pensions of retired workers.

Job security regulations. One of the objectives of labor laws in Latin America is to promote job stability. They do so by mandating minimum advance notice periods, specifying which causes justify dismissal, and mandating severance pay in case of dismissal. Labor codes also limit or forbid the use of contracts that can be terminated at no cost (such as temporary contracts). In some cases, labor codes require firms to be involved in lengthy consultations with the authorities prior to undertaking collective dismissals; in other cases, workers can be reinstated to their post if a labor court judges the cause of separation to be unfair. These provisions constitute the most important mechanism to insure workers against the risk of unemployment since in Latin America traditional unemployment insurance mechanisms, as found in developed countries, are either not available or are underdeveloped.[4]

Botero et al. (2003) elaborate a measure of job security provisions across world regions. Their mea-

sure is a normalized sum of the following four dimensions of protection: (1) whether employment at will is allowed and whether termination for economic reasons is considered a fair cause for dismissal, (2) procedures that an employer must follow and approvals it must seek prior to individual or collective dismissals, (3) advance notice and severance payments, and (4) whether job security is enshrined in a country's constitution. In Figure 3, Latin America and the Caribbean is the world region with the most job security. English-speaking industrial countries have the lowest levels of statutory protection. Within Latin America, Mexico, Peru, and Brazil exhibit high job security according to this measure, and Uruguay, Jamaica, and Chile have low job security.

Heckman and Pagés (2003) provide an alternative measure of job security regulations across industrial and Latin American countries. The measure includes advance notice, severance pay, and contributions to mandatory individual savings accounts.[5] Other costs, such as those associated with consultations with the authorities prior to collective dismissals, are not considered. While this is a less complete measure of employment security, it provides a measure of the level of benefits awarded to

Job Security Index (0–1)
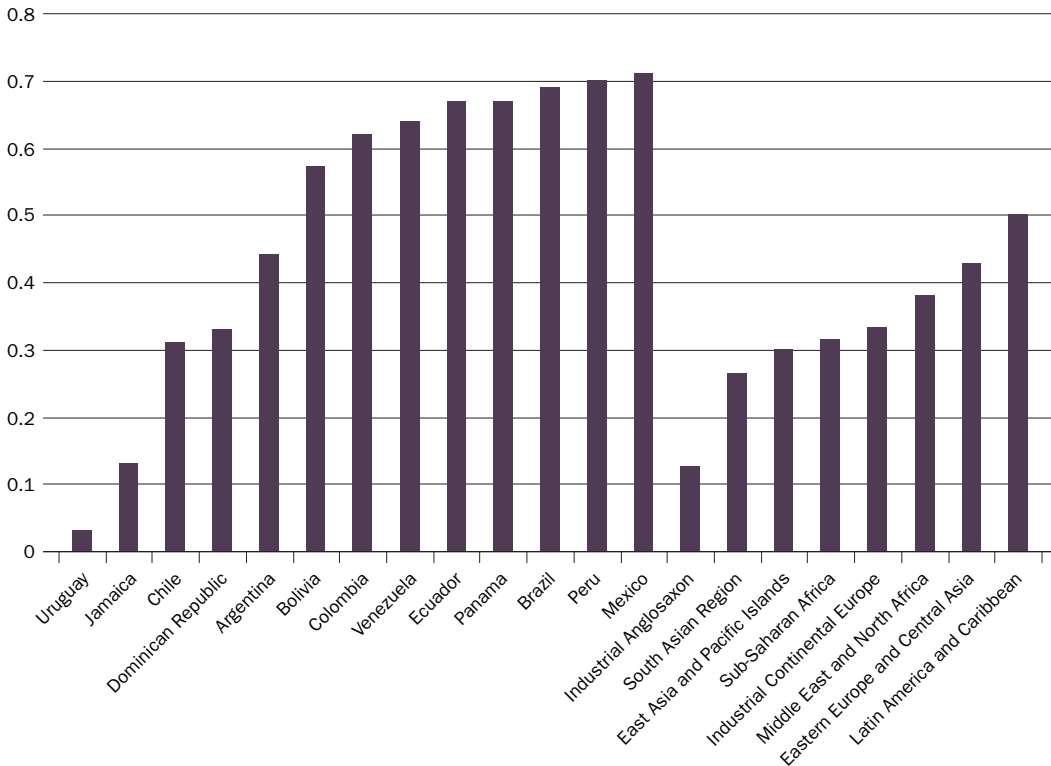
Source: Botero et al. (2003)

workers in case of separation.[6] Figure 4 summarizes the ranking of countries and the changes in regulation recorded by the Heckman and Pagés measure for Latin American countries during the nineties. It shows that dismissing a worker in Latin America involves a larger mandatory transfer to the worker than it would in industrial countries. The ranking of countries is somewhat different when job security is compared according to this measure. At the end of the 1990s, firms in Venezuela, Colombia, and Ecuador had the highest mandatory transfers to workers, and dismissed workers in Nicaragua, Paraguay, and Uruguay received the lowest benefits. Mexico, which ranks as highly protective according to Botero et al. (2003), appears relatively flexible in the Heckman

and Pagés measure because a large part of employment protection in Mexico comes in the form of lengthy procedural requirements rather than a high mandatory transfer to workers.

Contrary to common belief, employment protection for permanent workers did not weaken in most countries in the 1990s.[7] In Chile, Brazil, and the Dominican Republic, at the beginning of the 1990s and later in Nicaragua (1996), reforms aimed at restoring the political balance after military regimes produced more protective labor regulations. In Chile, in 1990 a new law increased maximum indemnities from five to eleven months of pay. It also reintroduced the need for firms to prove just cause for dismissal although, unlike the case in

4. Only a few countries in Latin America and the Caribbean (Brazil, Argentina, Chile, Uruguay, Barbados) have unemployment insurance (UI). Moreover, the coverage and replacement rates are very low. For instance, Argentina introduced a new UI program in the early nineties, but in 2003 only between 3 and 4 percent of the unemployed received this benefit (*Encuesta Permanente de Hogares* [*EPH*] 2003 from INDEC).

5. In a number of countries in Latin America, labor codes mandate firms' periodic contributions to workers' individual accounts. The funds deposited in these accounts plus interest income can be withdrawn only in the event that a worker separates from a job either voluntarily or involuntarily.

6. Another advantage of this measure is that it records time variation in regulations during the nineties.

7. In contrast, in many countries reforms to labor codes made hiring workers under temporary or fixed-term contracts easier, effectively lowering the cost of dismissing a worker.

FIGURE 4

The Cost of Job Security, End of the Eighties Relative to End of the Nineties
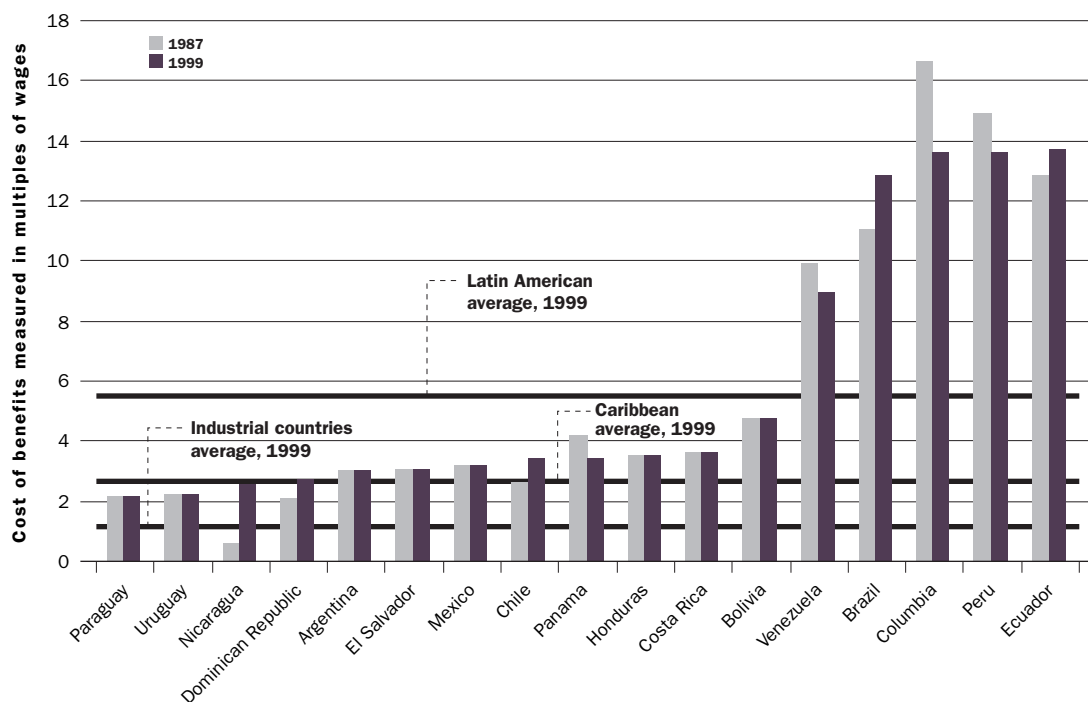
Note: Cost of job security includes advance notice, indemnities for dismissal, and seniority pay.

Source: Heckman and Pagés (2003)

other countries, the new law considered the economic needs of the firm a just cause.

Brazil enacted a new constitution in 1988 that enshrined new benefits and expanded existing ones. The new constitution also modified the mandatory individual savings accounts system created in 1966. Prior to the reforms, the law required employers to deposit 8 percent of employees' wages in a worker-owned account. In case of separation, workers could withdraw the accumulated funds (plus the interest rate). In addition, if a firm initiated a separation it had to pay a penalty equivalent to 10 percent of the amount accumulated in the account. As part of the 1988 reform, this penalty was increased to 40 percent, considerably increasing the cost of dismissing a worker. The penalty was further increased to 50 percent, and the monthly contributions were raised from 8 to 8.5 percent in the year 2001.

In contrast, in Colombia and Peru, labor market reforms reduced the total amount of the transfer to be paid to workers. In 1990 Colombia reformed many aspects of the labor code. Among the most important changes were the reform of the *cesantias*, or mandatory pay, that firms have to provide workers at the end of the work relationship

regardless of the cause or the party that initiated separation. These benefits were converted into an individual mandatory savings account, greatly reducing the costs associated with providing this benefit.[8] In addition, the reforms eliminated the right to reinstatement for workers with more than ten years of tenure. However, reforms also increased the cost of indemnities for dismissal.

In 1991 Peru reduced the cost of dismissing workers hired under indefinite contracts. During the 1971–91 period, Peru had an extremely protective labor law that granted permanent job security to workers. From 1991 onward, workers hired after that year could be dismissed upon payment of a severance benefit. Indemnities for dismissal were reduced in 1991 and then again in 1995; however, in 1996 they increased again.

In other cases, reforms increased one component of the transfer and reduced another. In Panama (1995) and Venezuela (1997), reforms simplified and reduced indemnities for dismissal but considerably increased the additional amount that firms had to pay as severance pay.

In summary, at least on paper, Latin America is well endowed with laws and regulations aimed at

improving the welfare of workers. In many aspects, lawmakers in Latin America have gone above and beyond the levels provided in other countries, and there have been few reforms aimed at bringing regulations in line with those in other countries. What is the cost of the status quo? What are the benefits? Which reforms, if any, should be implemented?

The Costs of Regulations

The cost of working conditions and social security regulations. Regulations are mandatory transfers from employers to employees. The effect of such regulations on labor market outcomes depends on who effectively bears the cost of such transfers. Thus, regulations do not necessarily imply an extra cost for employers or a disincentive to hire labor; such costs depend on whether employers are able to transfer the costs to workers in the form of lower pay. Thus, regulations that mandate benefits for which workers have a high willingness to pay can increase the welfare of workers without affecting the labor market while regulations or benefits for which workers have little desire will lead to loss of jobs. In addition, if minimum wages or other wage floors prevent the adjustment of wages, regulations that in principle could be neutral might reduce employment and increase unemployment. Similar regulations may have different effects across countries because of interactions with other regulations.

One simple measure of the impact of regulations is to correlate measures of regulations with measures of labor market outcomes. While such results should not be interpreted in a causal fashion, they give an indication of whether countries with more stringent regulations are associated with better or worse labor market performance. I gather data for labor market outcomes and for regulations for a sample of Latin American and Organisation for Economic Co-operation and Development (OECD) countries and run simple cross-country regressions to correlate regulations to outcomes.[9] Since the level of development of a country is correlated with performance, this analysis controls for per capita gross domestic product (GDP). The regulatory data are dated in 1997 (Botero et al. 2003) or in 1999 (Heckman and Pagés 2003). The outcomes are computed as the time averages for the periods reported in the first row of Table 1. The results reported in the table suggest that more protective working conditions are correlated with higher self-employment and higher duration of unemployment (although this latter coefficient is significant only at the 11 percent level). The magnitude of the effect is large. For instance, an increase in the generosity of the conditions of employment from the 10th (lowest) percentile to the 90th (highest) percentile is associated with a 6.58 percentage point increase in self-employment and a 16.55 point increase in the percent of long-term unemployment. Instead, there is no statistical association between conditions of employment regulations and employment or unemployment rates. This pattern would seem to suggest that the increase in self-employment is exactly compensated for by a decline in wage employment with no aggregated employment losses.

Instead, the results suggest that social security contributions are correlated with lower employment rates and lower employment growth across countries. The correlation with unemployment is positive but not statistically significant, suggesting that losses in aggregate employment result in people withdrawing from the labor force rather than declaring themselves unemployed. However, higher social security benefits are correlated with a higher percentage of long-term unemployed workers (one year or more). This correlation is consistent with a picture in which higher contributions and benefits lead to lower job creation and greater difficulty in finding jobs. There is no evidence, however, that higher social security contributions lead to higher self-employment rates. The costs in terms of employment rates and employment growth suggested by these cross-country regressions are not small. An increase in social security contributions from the 10th percentile to the 90th implies a 4.63 percentage point loss in employment rates using the

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8. The high cost of operating this benefit derived from the fact that workers could make early withdrawals against this benefit. But while the pay was indexed to the last wage prior to separation, withdrawals were credited against the severance pay without adjusting for inflation. High inflation made this system costly.

9. The data are gathered from various sources. Employment and unemployment rates and unemployment duration in Latin America were computed directly from individual countries' household survey data. For industrial countries the source is labor force statistics from the OECD, available online at <www.oecd.org>. Real GDP per worker was obtained from Heston, Summers, and Aten (2002). GDP per capita is the time average between 1995 and 1999, and the source is World Bank Development Indicators CD-ROM, 2000. Employment growth data for Latin America was obtained from ILO and for industrial countries from the OECD. Self-employment rates for Latin America were computed directly from individual country household surveys. For industrial countries the source is Blanchflower (2000). The regulatory measures are obtained from Botero et al. (2003) and Heckman and Pagés (2003).

TABLE 1

The Costs of Labor Laws and Regulations: Regression Results

Dependent variables	Employment rate	Unemployment rate	Employment growth	Percent self-employed[a]	Real GDP per worker, growth rate[b]	Percent unemployed reporting duration of more than a year
Conditions of employment (index 0–1)[c]						
Coefficient	–7.24	3.12	–2.53	12.67	1.35	31.83
t-statistics	(1.27)	(0.67)	(1.21)	(2.40)*	(0.89)	(1.64)
No. of observations	54	39	40	33	83	38
R-squared	0.11	0.13	0.13	0.75	0.03	0.11
Social security (index 0–3)[c]						
Coefficient	–3.61	1.02	–1.77	–0.87	–0.30	
t-statistics	(1.62)	(0.71)	(2.31)*	(0.29)	(0.71)	
No. of observations	54	39	40	33	83	
R-squared	0.12	0.13	0.21	0.7	0.02	
Social security contributions (as percent of wages)[d]						
Coefficient	–12.48	3.86	–3.16	–0.08	1.64	73.04
t-statistics	(1.97)	(0.93)	(2.14)*	(0.01)	(0.79)	(4.51)**
No. of observations	42	36	32	38	42	40
R-squared	0.18	0.12	0.29	0.7	0.17	0.39
Job security (index 0–1)[c]						
Coefficient	0.60	–0.64	1.67	0.77	0.49	–3.45
t-statistics	(0.10)	(0.18)	(0.80)	(0.16)	(0.35)	(0.20)
No. of observations	54	39	40	33	83	38
R-squared	0.08	0.12	0.11	0.7	0.02	0.05
Job security (as multiples of monthly wages)[d]						
Coefficient	–1.38	–0.97	0.32	–0.36	0.17	–0.15
t-statistics	(1.37)	(1.52)	(1.08)	(0.36)	(0.67)	(0.47)
No. of observations	42	37	32	38	41	42
R-squared	0.21	0.17	0.24	0.71	0.34	0.12

[a] Blanchflower (1996) and IDB based on household surveys
[b] Heston, Summers, and Aten (2002)
[c] Botero et al. (2003)
[d] Heckman and Pagés (2003)

Notes: Each cell reports the coefficient, t-statistic, number of observations, and R-squared of regressing outcome measures on a constant and regulations, controlling for GDP per capita. Only one regulation at a time is included in the regression. The absolute value of t-statistics is shown in parentheses. * indicates significance at the 5 percent level; ** indicates significance at the 1 percent level. The employment rate is employment per population, mean 1995–2001; the unemployment rate, mean 1995–2001; employment growth, number of employees, mean 1990–2001; percent self-employed, mean 1995–2001; real GDP per worker growth rate, mean 1995–99; and percent unemployed reporting duration of more than a year, mean 1995–2001.

Sources: Employment and unemployment data for Latin American countries from IDB (2003) and from OECD Labor Force Statistics for OECD countries

FIGURE 5

Percentage of Salaried Workers without Social Security Benefits, End of Nineties
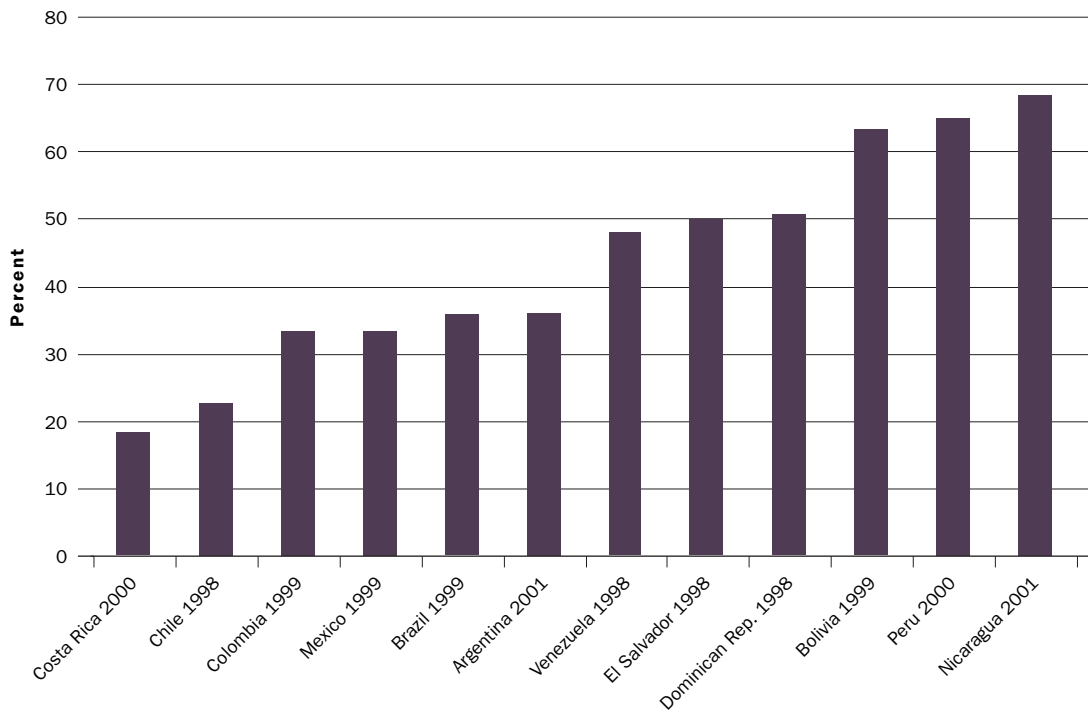
Source: Author's computations from individual country household surveys

Heckman and Pagés (2003) social security measure and a 6.73 percentage point loss if the Botero et al. (2003) social security measure is used instead.

While these correlations are suggestive, they are based on a limited number of countries and observations. Some other studies provide results based on more disaggregated data, longer time horizons, and methodologies that control for unobservable omitted factors. For example, Heckman and Pagés (2003) survey the existing literature on the effects of mandatory benefits and social security contributions on wages and employment. They conclude, "All in all, the available evidence for Latin America suggests that at least part of the cost of non-wage benefits is passed on to workers in the form of lower wages" (36). A few studies find evidence that workers pay for the entirety of benefits, but the majority find that employers bear a share of the cost.[10] Heckman and Pagés (2003) also estimate the direct impact of social security contributions on employment using a panel

of countries in the OECD and Latin America. They find that such contributions reduce employment and increase unemployment both in the joint sample and within each region. Therefore, the evidence is quite robust that although benefits are partly paid by employees, mandatory benefit regulations have a cost in terms of employment.

Another issue that is particularly relevant in the context of low- and middle-income countries with poor enforcing mechanisms is that if lawmakers go beyond what workers are willing to contribute in order to achieve some benefits, workers might exchange lower protection for higher net wages. Excessive protection may partially explain why compliance with social security regulations is low (see Figure 5). Fifty percent or more of employees are not covered in Nicaragua, Peru, Bolivia, the Dominican Republic, and El Salvador.[11] Excessive protection may also explain why in Latin America it is less likely that social insurance programs cover poorer workers

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10. Gruber (1994) for the United States and Gruber (1997) for Chile find that workers bear all the costs. Edwards and Cox-Edwards (2000), Mondino and Montoya (2000), and MacIsaac and Rama (1997) find that the cost is shared by employers and employees.

11. A worker is defined to be covered by labor market regulations, or, in other words, to hold a regulated job, if he or she is affiliated to social security through his or her job.

TABLE 2

Percentage of Salaried Workers with Social Security by Category

	Argentina 2001	Brazil 1999	Bolivia 1999	Costa Rica 2000
Gender				
Male	66.34	64.71	34.86	80.18
Female	60.69	63.57	40.80	85.19
Education				
No school	n.a.	35.36	n.a.	65.01
Primary incomplete	37.36	46.13	15.11	69.30
Primary complete	50.31	59.21	5.46	75.36
Secondary incomplete	50.59	60.88	22.48	81.35
Secondary complete	71.69	81.80	40.48	91.76
At least some tertiary	79.61	88.64	61.51	96.70
Activity				
Agriculture, hunting, forestry & fishing	n.a.	31.91	5.98	74.42
Mining & quarrying	86.04	67.99	n.a.	n.a.
Manufacturing	66.86	78.79	29.43	86.36
Electricity, gas & water supply	86.03	94.25	n.a.	94.62
Construction	31.96	41.93	11.68	57.62
Whole & retail trade; hotels & restaurants	52.76	67.50	24.41	81.75
Transport, storage	57.17	78.18	17.08	79.74
Finance, insurance & real estate; business services	79.79	86.94	n.a.	89.80
Community, social & personal services	80.83	65.26	64.12	86.91
Age				
Aged 15–24	44.06	49.56	12.20	69.68
Aged 25–49	68.95	70.62	45.27	85.82
Aged 50–64	67.25	65.36	49.73	87.60
Zone				
Urban	63.93	67.50	38.54	85.02
Rural	n.a.	44.00	26.22	78.06
Family				
Head	71.44	70.09	43.46	87.00
Spouse	64.24	66.77	57.92	86.39
Son, daughter	54.67	56.51	19.00	75.08
Other relatives	54.71	55.90	n.a.	77.68
Other nonrelatives	n.a.	51.40	n.a.	74.86
Domestic workers	n.a.	69.08	n.a.	n.a.
Firm size				
	1–5 25.78	1–5 37.77	1–4 12.26	1–5 58.67
	6–15 57.80	6–10 62.07	5–19 14.22	6–9 72.50
	16–50 81.57	>10 85.43	20–49 42.24	10–19 82.47
	51–100 87.60		50–99 61.51	>19 94.99
	>100 92.38		>99 72.08	
Multiples of minimum wage				
Less than 90 percent	50.41	11.65	10.58	74.65
90–120 percent	25.96	41.18	13.39	88.58
121–200 percent	45.39	60.03	16.68	93.01
201–300 percent	65.45	73.61	28.79	93.47
301 percent and more	77.26	83.66	55.67	85.57

Source: Computed by author from household surveys in each country

	Chile 1998		Mexico 2001		Peru 2000
	79.03		66.66		36.15
	72.82		68.22		33.17
	56.00		43.12		n.a.
	59.21		45.94		14.38
	67.07		56.71		17.71
	70.06		64.13		17.47
	82.29		79.71		30.53
	88.84		79.83		55.80
	61.36		40.81		6.27
	93.50		69.48		n.a.
	83.24		80.72		38.83
	89.34		91.04		n.a.
	72.82		42.83		16.38
	79.23		63.12		21.18
	73.39		53.67		20.63
	85.55		84.91		49.20
	76.70		64.93		53.27
	62.18		55.81		10.25
	79.18		71.85		43.02
	79.10		66.82		46.34
	78.54		67.25		39.86
	61.68		n.a.		17.16
	81.96		71.56		43.27
	73.80		69.15		39.16
	70.69		61.49		26.01
	71.12		62.56		56.55
	66.78		63.69		n.a.
	76.90		56.91		n.a.
1–5	52.32	1–5	16.45	1–5	8.17
6–9	70.34	6–15	46.03	6–10	27.46
10–49	79.55	16–50	74.90	11–50	49.81
50–199	86.58	51–100	85.94	51–100	65.17
>199	91.59	>100	90.02	>100	73.80
	53.53		18.68		11.63
	75.49		28.67		28.82
	84.64		42.50		43.68
	88.46		62.33		68.75
	82.39		76.66		67.54

than middle- or higher-income workers. Excessive protection may also explain why younger workers (who are likely to be covered by the contributions of other members of the household) are less likely to be covered than older workers.[12] Table 2 shows that social security programs protect a lower percentage of young, unskilled, and lower-wage workers than men and older, skilled, and richer workers. Thus, not only is coverage low, but it is also biased against those workers that arguably need more protection.

The cost of job security. Cross-country regressions of the two job security measures discussed earlier against a set of indicators of performance, controlling for income per capita, do not provide much evidence that job security regulations are significantly correlated with measures of performance. However, given the limited number of countries involved in this study, it is important to rely on studies that make use of longer time series or a larger number of countries. Below, I summarize the results of this growing literature.

Effects on turnover. At the aggregate levels, turnover rates and job security regulations tend to show no correlation. Figure 6 plots average turnover rates and the Botero et al. (2003) job security measure across a sample of OECD countries and two Latin American countries.[13] The economic literature has proposed some explanations for this surprising lack of correlation. For instance, Bertola and Rogerson (1997) explain the similar rates of job creation and destruction found in continental Europe (rigid) and the United States and Canada (flexible) by arguing that countries with high job security are also likely to have institutions that promote wage rigidity. Loboguerrero and Panizza (2003) provide evidence that supports this argument because countries with more stringent job security regulations have larger employment losses associated with cyclical changes in economic activity.

Yet it is very likely that crude measures like gross job flows do not control for the size of macroeconomic

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12. An alternative explanation is that younger, less skilled workers tend to be employed in firms that evade labor laws; however, it could be argued that such firms do not pay because they are not able to pass the cost on to the employees.
13. Job turnover is the sum of the job creation and job destruction figures for a given year. Job creation is computed as the percent increase in employment at the plant or establishment level for all plants whose employment increased between one year and the year before, weighted by each plant or establishment's employment. Job destruction is computed in a similar manner. A job turnover rate of 25 percent indicates that one in four jobs is created or destroyed each year.

FIGURE 6

Job Security and Annual Gross Job Flows
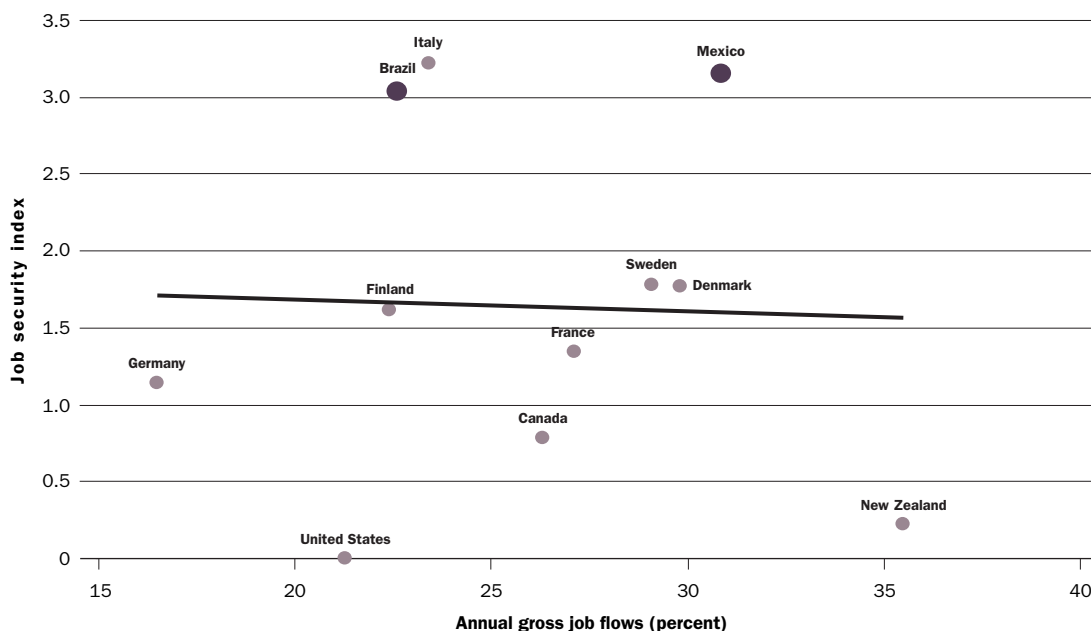
Source: Botero et al. (2003) for the job security index and IDB (2003) for annual gross job flows

shocks or other relevant differences across economies that may be important in determining turnover. Some recent studies suggest that, controlling for these differences, job security affects turnover in the expected way. For instance, Kugler (forthcoming) finds evidence for Colombia that job instability increased after labor market deregulation and that this change occurred across all sectors and not only in the tradable sectors (as would be expected if these changes were mostly caused by contemporaneous trade reforms). Micco and Pagés (2004) provide a formal test of the causal relationship between labor market regulations and job turnover once relevant differences across countries are controlled for. This test is based on the notion that more volatile industries should be more affected by strict employment protection than less volatile industries are. The results suggest that employment protection reduces turnover, particularly in industries that are more volatile or require less specific human capital.

Effects on employment and unemployment. In some respects, job security regulations can be interpreted as mandatory benefits, so the former analysis on the impact of these benefits also applies to job security provisions. However, job security regulations differ from regular mandatory benefits in that these regulations specifically seek to alter firms' decisions regarding hiring and firing workers. The result is fewer layoffs in bad times but also less hiring in good times. This effect implies that even if the cost of severance pay and other job security provisions could not be fully shifted to workers, employment rates may not decline because reduced hiring could be outweighed by reduced layoffs. In fact, the empirical evidence on the effect of job security on employment and unemployment rates is far from conclusive. Addison and Teixeira (2001) survey the literature for industrial countries and report that while a large group of studies find a negative effect of job security on employment, others do not. The evidence on the effects of job security on unemployment is equally ambiguous.

Heckman and Pagés (2003) review the literature for Latin America and find that while some individual country studies suggest that regulations promoting job security reduce employment, cross-country time series estimates for Latin American and OECD countries do not show those results. The strongest results are found by Saavedra and Torero (forthcoming) for Peru and Mondino and Montoya (forthcoming) for Argentina. In both studies, the authors find that lower job security is associated with higher industrial employment rates. However, studies examining labor reforms in Chile and Brazil find no evidence of statistically significant effects.[14]

Thus, although some studies suggest that reducing job security in Latin America holds the promise

of higher employment and lower unemployment rates, others do not. These results may imply that the effects of labor market deregulation differ across countries, depending on the circumstances accompanying such reforms.

Duration and composition of employment. Two areas in which job security regulations are found to have important and undesirable effects are the duration of unemployment and the composition of employment by age, gender, and skill. The evidence suggests that more stringent job security provisions tend to increase the duration of unemployment. This pattern is explained by a decline in hiring rates. As firms become more reluctant to hire workers (for fear of expensive dismissal costs in the future), unemployed workers have greater difficulty finding new jobs.[15] For Colombia, Kugler (forthcoming) finds that after a reform in 1990 that reduced job security, the average duration of unemployment declined from its prereform levels.

The evidence also suggests that job security provisions create winners and losers. In a study of OECD countries, Nickell (1997) reports that while job security does not seem to have an effect on prime-age male employment rates, it is associated with lower employment rates for women and youth. Two studies of Chile (Pagés and Montenegro 1999; Montenegro and Pagés, forthcoming) find that job security provisions are not neutral across age and skill groups. More stringent job security regulations are found to bias employment toward prime-age and older workers while reducing the employment share of younger workers. Moreover, higher employment protection is associated with a relative decline in the demand for unskilled workers relative to skilled workers. The effects are quite sizable. For instance, a 10 percent increase in job security reduces the employment rate of young, unskilled workers by almost 0.5 percentage points. For skilled youth, the effect is smaller but still significant. For older workers, these effects are reversed and employment rates increase with job protection. To give an idea of the magnitudes, the 1990 Chilean reform increased job security by about one-third. The estimates suggest that this reform could have reduced the employment rate of unskilled youth by 1.5 percentage points.

Productivity growth. Perhaps the most worrisome claim against job security regulations is that they might reduce productivity growth. The argument is that they reduce the reallocation of workers from less productive to more productive activities. In countries such as the United States, such reallocation accounts for more than half of the productivity growth rate.[16] Yet while the evidence indicates that job security slows down reallocation, the relationship between labor market institutions and growth is far from conclusive. Nickell and Layard (1999) examine the effect of job security provisions on productivity growth in a panel of OECD countries and conclude that there is no evidence in their sample that countries with more stringent job security have lower labor (or total) productivity growth.

> **Contrary to common belief, employment protection for permanent workers did not weaken in most countries in the 1990s.**

This result is driven by the fact that in the period considered in their study (1976–92), countries like the United States, Canada, and New Zealand, which are characterized by low job security, had lower average productivity growth than countries like Spain, Italy, and Belgium, which have high job protection. Scarpetta and Tressell (2002) analyze a panel of countries, sectors (manufacturing and services), and years. They find that although on average countries with higher job security tend to experience lower productivity growth, this effect is statistically significant only in countries with intermediate levels of coordination/decentralization in collective bargaining. They interpret these findings as suggestive that job security provisions do not have negative effects in countries where incentives for firms to train existing workers are high (as is the case in countries with coordinated/centralized collective bargaining) or in countries that have few restrictions on hiring the required mix of skills in the market (decentralized bargaining).

In sum, the existing literature points to sizable negative effects of mandatory benefits and, in particular,

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14. See Pagés and Montenegro (1999) for Chile and de Barros and Corseuil (forthcoming) for Brazil.
15. See Nickel and Layard (1999) and the references therein.
16. See Hopenhayn and Rogerson (1993) and Blanchard and Portugal (2001). See also the extensive literature on reallocation and productivity growth summarized in Davis and Haltiwanger (1996).

social security contributions on employment. More-over, while the effect of job security provisions on employment or unemployment is ambiguous, such provisions do seem to make labor markets more sclerotic (characterized by less job creation, lower job flows, and longer duration of unemployment) and bias employment against young and unskilled workers. The effects of labor market regulations on productivity and growth remain an open question.

The Benefits of Social Protection

While labor market regulations generate costs in terms of labor market performance, the demand for social protection appears to be large. Rodrik (2001)

> **More stringent job security regulations are found to bias employment toward prime-age and older workers while reducing the employment share of younger workers.**

cites a large cross-national survey of fourteen Latin American economies that found that almost 75 percent of the respondents favored higher spending on unemployment insurance while 80 percent favored more spending on pensions.[17] Another cross-national opinion survey covering seventeen countries in Latin America indicates that, on average, more than 20 percent of the survey respondents name unemployment as the most pressing problem in the region. In some countries, such as Uruguay, Chile, Peru, Nicaragua, and Argentina, the percentage of respondents that identified unemployment as their main problem surpassed 30 percent (Latinobárometro 2001). More-over, according to the same survey, 85 percent of the respondents were either unemployed or worried about losing their job. In comparison, workers were more anxious about losing their jobs in Latin America than in industrial countries despite the fact that turnover rates are comparable across regions (IDB 2003, chap. 2). These differences could be attributed to the lower levels of protection against unemployment in Latin America once the low compliance with regulations is factored in.

This discussion raises the question of what the benefits of current levels of regulation are. While research attempting to measure the costs of regulations has grown substantially in the last ten years, research measuring the welfare effects of labor market regulations in Latin America has been very limited. Gaviria (2001) suggests that poorer house-holds are more likely to cope with income shocks by cutting back on human capital investments than richer households are. Yet it is unclear whether such arguably inefficient strategies could be reduced if poorer households had better access to social insurance. In this regard, there is hardly any research assessing whether the level and design of existing provisions cover the needs of beneficiaries. This assessment is particularly relevant because mandatory provisions like pensions, health benefits, or unemployment insurance can crowd out private savings, within-household transferences, spousal-added worker effects, or other informal insurance mechanisms, thus reducing the overall effect of regulations.[18] Are the high levels of insecurity driven by the low levels of coverage or by design failures in the current social protection systems? The survey data reported in Rodrik (2001) suggest that there are no substantial differences in the level of insecurity across income or education classes. This evidence is quite surprising given the strong correlation between income and coverage suggested by the figures reported in Table 2.

One of the few studies analyzing the consumption-smoothing effects of labor market regulations is MacIsaac and Rama (2001). In this paper, the authors assess the impact of employment protection clauses, and, in particular, mandatory severance pay, on consumption in Peru. The study finds that consumption among unemployed workers receiving severance pay was 20 to 30 percent greater than among those who do not, suggesting an important consumption-smoothing role of such provisions. However, the study also finds that consumption among those unemployed workers that received severance pay was higher than among employed workers. This finding suggests that severance pay might be too high for beneficiaries and too low for everybody else.

Recent economic literature emphasizes the value of social insurance not only in its consumption-smoothing role but also as an instrument to bring aggregate productivity gains by promoting better job-worker matches. Marimon and Zilibotti (1997) show that in economies with unemployment insurance, unemployment increases more in bad times but wage inequality grows less and productivity grows more as a result of better job-worker matches. Similarly, Acemoglu and Shimer (1999, 2000) argue that unemployment insurance can increase productivity by encouraging workers to seek higher-productivity jobs and by encouraging firms to create

TABLE 3

Six-Month Transitions from Unemployment (Percent)

From unemployed to...	All	Prime age	Young	Prime age Male	Prime age Female	Prime age Skilled	Prime age Unskilled
A. 1993–2001, Metropolitan Buenos Aires, Argentina							
...Unemployed	36.2	34.4	37.6	37.9	31.1	37.6	32.7
...Inactive	26.9	24.8	27.5	8.4	40.8	23.9	25.4
...Employed	36.9	40.8	34.9	53.7	28.1	38.5	41.9
...Owner	0.8	1.0	0.5	0.8	1.5	1.2	0.9
...Self-employed	27.9	32.2	13.6	36.3	24.5	27.0	35.5
...Wage worker	71.3	66.8	85.8	62.9	74.0	71.8	63.7
...Small firms	60.4	61.5	51.0	61.7	61.2	47.5	68.5
...Medium firms	22.2	19.7	28.4	20.8	17.6	23.5	18.0
...Large firms	17.4	18.8	20.6	17.5	21.2	28.9	13.5
...Job with benefits	18.8	19.3	23.4	19.3	19.3	31.1	13.3
...Job without benefits	81.2	80.7	76.6	80.7	80.7	68.9	86.7
B. 1990–2001, Urban Mexico							
...Unemployed	15.4	15.3	15.9	16.3	14.2	18.3	13.3
...Inactive	30.0	24.6	34.0	7.9	47.5	25.1	23.9
...Employed	54.6	60.1	50.1	75.8	38.3	56.6	62.8
...Owner	2.4	3.6	0.7	4.6	0.9	4.0	3.3
...Self-employed	15.7	22.0	6.8	24.0	17.2	19.7	23.4
...Wage worker	81.9	74.3	92.5	71.4	81.9	76.2	73.4
...Small firms	44.0	46.6	38.7	49.0	40.9	36.2	53.3
...Medium firms	20.2	18.0	23.0	18.0	17.7	18.7	17.4
...Large firms	35.8	35.4	38.3	33.0	41.4	45.1	29.3
...Job with benefits	38.5	37.2	41.8	35.8	40.1	42.7	33.5
...Job without benefits	61.5	62.8	58.2	64.2	59.9	57.3	66.5

Source: Panel A, IDB (2003) based on *EPH* (1993–2001) from INDEC; panel B, IADB (2004) based on *ENEU* (1990–2001) from INEGI

those jobs. The evidence for Latin America suggests that many workers might be liquidity constrained in their search for productive work. Table 3 presents six-month labor market transition matrixes for Argentina and Mexico, by gender and age, computed with longitudinal panel data.[19] The data show that while women and youth have a lower probability of transiting from unemployment to employment within six months than men and prime-age workers,

women and youth tend to find better jobs. They, for instance, are more likely to find jobs that pay benefits mandated by labor laws. In Argentina, out of 100 youth transiting from unemployment to employment, 23.4 find jobs with social security benefits while the corresponding percentage for prime-age workers is only 19.3. In Mexico, the respective percentages are 41.8 versus 37.2. In Mexico, prime-age women are also more likely to find jobs with benefits

17. The original source, as quoted by Rodrik (2001), is Mirror of the Americas Poll, *Wall Street Journal*.

18. See, for instance, Engen and Gruber (1995) and Cullen and Gruber (2000) for estimates of the effects of unemployment insurance on precautionary savings and on the spousal-added worker effect, respectively.

19. See IDB (2003, chap. 2). The original data sources are *Encuesta Permanente de Hogares* (*EPH*) (Argentina, 1993–2001) elaborated by Instituto Nacional de Estadísticas y Censos de la Republica (INDEC) and *Encuesta Nacional Empleo Urbano* (*ENEU*) (Mexico, 1990–2001), constructed by Instituto Nacional de Estadística, Geografía e Informática (INEGI).

than men are while they are equally likely to do so in Argentina. Women and youth are also more likely to find jobs as wage employees and in large firms. While it is unclear that all wage employees are better off than self-employed workers, it is a well-known fact that wages tend to increase with the size of the firm.

The longitudinal data also show that workers displaced from unregulated jobs suffer higher wage losses upon reemployment than workers displaced from regulated work (see Table 4). Considered together, these findings indicate that those workers who can sustain a longer or more effective search process—either because they are likely to be supported by other members of the family or because

> Workers were more anxious about losing their jobs in Latin America than in industrial countries despite the fact that turnover rates are comparable across regions.

they received severance pay—find better jobs. This evidence suggests that severance pay or unemployment insurance benefits might bring substantial productivity gains both for the beneficiaries and for the economy as a whole. In that regard, the low levels of compliance with the current system may be limiting consumption-smoothing and productivity gains for a large share of the labor force. Yet compliance is not an exogenously given variable that is solely determined by the effectiveness of the state. As described earlier, inadequacies in the level and design of current labor market institutions may be driving people away from social insurance.

The Pitfalls of Reforms

The former discussion argued that while existing regulations exact costs on labor market performance, and possibly on overall economic performance, it is often forgotten that such provisions serve a role. Yet the value of such provisions is not well known. There seems to be a large and unmet demand for social protection despite the fact that the level of protection for beneficiaries is quite high. This high demand raises two issues. The first is whether the current system of regulations does what it is supposed to do to the (minority of) people that it reaches. The second is that the appropriated discussion is not so much how or when to

deregulate but whether the benefits of the current system of regulations are outweighed by the costs or whether there are alternative systems that improve upon the existing ones. The balance between benefits and costs and the opportunities for improvement is bound to change from country to country, depending on the design and level of existing regulations. Murillo (2003) finds that in Latin America those countries that had more stringent labor market regulations in 1985 were more likely to deregulate their labor markets during the nineties while the least regulated countries tended to reregulate. This finding suggests that in highly regulated countries, the costs of such regulations tended to outweigh their benefits. In the future, more research is required on the costs and particularly on the benefits of the current regulatory systems or on proposed reforms. This task is urgent. The failures of the current regulatory systems are many, and the costs they exact on labor market performance are substantial. Yet the hazards of poorly conceived reforms should also not be forgotten.

It is tempting to conclude that the solution lies in designing and implementing better social protection mechanisms that reduce the costs exerted by the current system while expanding the coverage of the system. Yet it should be clear that the alternatives are not exempt from costs and are not warranted to improve upon existing systems. The deregulation of temporary contracts and the conversion of mandatory severance pay in unemployment insurance illustrate the pitfalls of reforms.

During the nineties, many countries deregulated the use of special contracts with limited duration and no severance payment obligations. However, to prevent firms from hiring only temporary workers, temporary contracts can be renewed only a limited number of times, after which workers have to be hired under permanent, regular contracts.[20] This type of reform was thought to be inferior to a full deregulation (that is, reducing the cost of dismissing all workers) but still considered an improvement upon the situation of no reform. Yet the available research is starting to show the downside of these reforms. Deregulating temporary contracts increases rotation because firms hire more workers at the entry level, employ them for a while, and then dismiss them without giving them permanent jobs to avoid the costs associated with indefinite contracts. Employment rates do not necessarily increase (or unemployment rates decline) because the effect of more workers hired is outweighed by the effect of increased layoffs (Blanchard and Landier 2002; Hopenhayn, forthcoming). As the probability that

TABLE 4

Average Wage Loss of Displaced Workers Relative to Nondisplaced Workers (Percent)

Argentina		Mexico	
Aged 50 years or older	17.5	Aged 50 years or older	16.2
Aged 30–49 years	5.9	Aged 30–49 years	26.3
Aged 20–29 years	9.7	Aged 20–29 years	16.8
Female	2.6	Female	8.3
Male	10.8	Male	17.7
Tertiary complete	26.5	Tertiary complete	35.9
Tertiary incomplete	44.5	Tertiary incomplete	21.6
Secondary complete	14.1	Secondary complete	21.1
Secondary incomplete	4.0	Secondary incomplete	15.4
Primary complete	4.8	Primary complete	10.2
Primary incomplete	24.8	Primary incomplete	14.0
Without social security	10.3	Without social security	20.8
With social security	5.3	With social security	9.2
Different sector	16.3	Different sector	15.5
Same sector	3.5	Same sector	14.9

Source: IDB (2003) based on *EPH*-Argentina (1993–2001) and *ENEU*-Mexico (1990–2001)

workers are converted to permanent status declines, so does the incentive to accumulate human capital or provide training. Since temporary contracts tend to be concentrated among young workers, incentives for productivity growth are reduced for those workers who need them the most (Alonso-Borrego and Aguirregabiria 1999) Moreover, the use of fixed-term contracts for some workers might strengthen the bargaining position of permanent workers because there is a buffer of temporary workers that will be laid off first in the face of adverse economic conditions. This stronger bargaining position might result in higher wages for permanent workers and lower employment rates relative to the case of no reform (Bentolila and Dolado 1994).

Similarly, the findings that dismissal costs exact large costs on labor market performance have elicited a search for better suited alternatives to protect workers against the risk of unemployment. Proposals have included unemployment insurance savings accounts (UISAs), traditional unemployment insurance (UI) programs as found in most developed countries, and some hybrid systems providing a combination of UISAs and traditional UI. Traditional UI systems have well-known moral hazard problems. Insured workers have fewer incentives to search effectively for jobs, thus extending the duration of unemployment, although such effects can be minimized with benefits that decline with the duration of unemployment. In Latin American countries, however, the most difficult implementation problem is the lack of appropriate records and the large percentage of workers employed in unregulated jobs. This situation implies that workers can easily work in the unregulated sectors while receiving UI payments.[21] In this context, UISAs look promising because they require only setting individual saving accounts to which workers contribute when employed and draw from when unemployed. Since workers own the funds, they will have the right incentives to search for jobs or withdraw resources from the account, thereby minimizing the moral hazard problems associated with UI. However, UISAs do not allow for risk pooling, forcing each

20. These types of new modalities were introduced in Argentina in 1991 and extended in 1995. Peru and Colombia also lifted restrictions on the use of these types of programs in the early 1990s. In both cases, the number of workers hired under these modalities increased enormously—for Peru, from 20 percent of salaried employees in 1990 to 55 percent in 2000, and in Colombia, a similarly high increase. In Brazil, the use of such contracts was deregulated in 1988.

21. For example, according to household survey data from Uruguay (*Encuesta Continua de Hogares*) in 2002, approximately 25,000 people declared themselves to be receiving unemployment benefits, and more than half of them were employed.

worker to save for unemployment spells that may not occur. Given the advantages and problems of these two systems, it is easy to see why some countries are experimenting with mixed systems. For example, a new unemployment insurance system in Chile is based on UISA, but workers and the state also contribute to a solidarity fund, which pays UI to those workers whose savings are below a certain minimum. These hybrid systems are promising. However, they have not yet been evaluated, and therefore it is unclear whether they work in prac-tice or whether their benefits outweigh their costs. It should be mentioned that in Chile the introduction of such a system was not associated with a large reduction of the severance pay system (which is much more generous than the UI system).

This discussion should not be interpreted as a call for inaction. On the contrary, only by experimenting with new designs and proposals and evaluating their results is it possible to achieve labor policies that maximize the benefits while minimizing the costs. This approach is a more promising direction for reforms.

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