

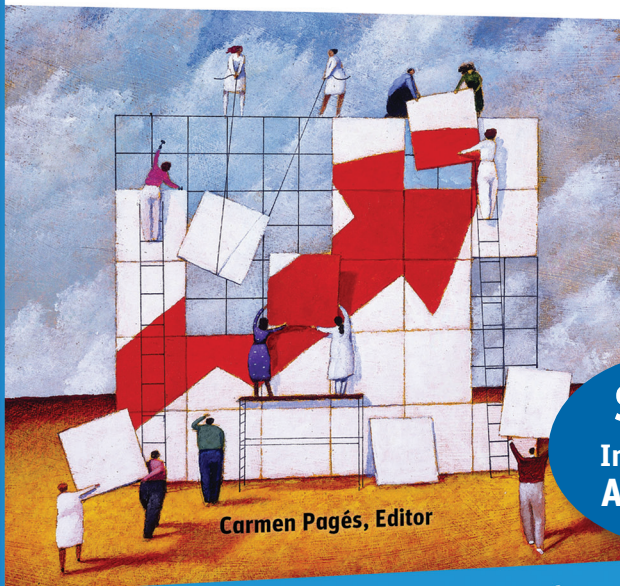
EXECUTIVE
SUMMARY

THE AGE OF PRODUCTIVITY

Transforming economies from the bottom up

The Age of Productivity

TRANSFORMING ECONOMIES FROM THE BOTTOM UP



Carmen Pagés, Editor

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DEVELOPMENT IN THE AMERICAS



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“Productivity isn’t everything,
but in the long run it is almost everything.”

—Paul Krugman

Inter-American Development Bank



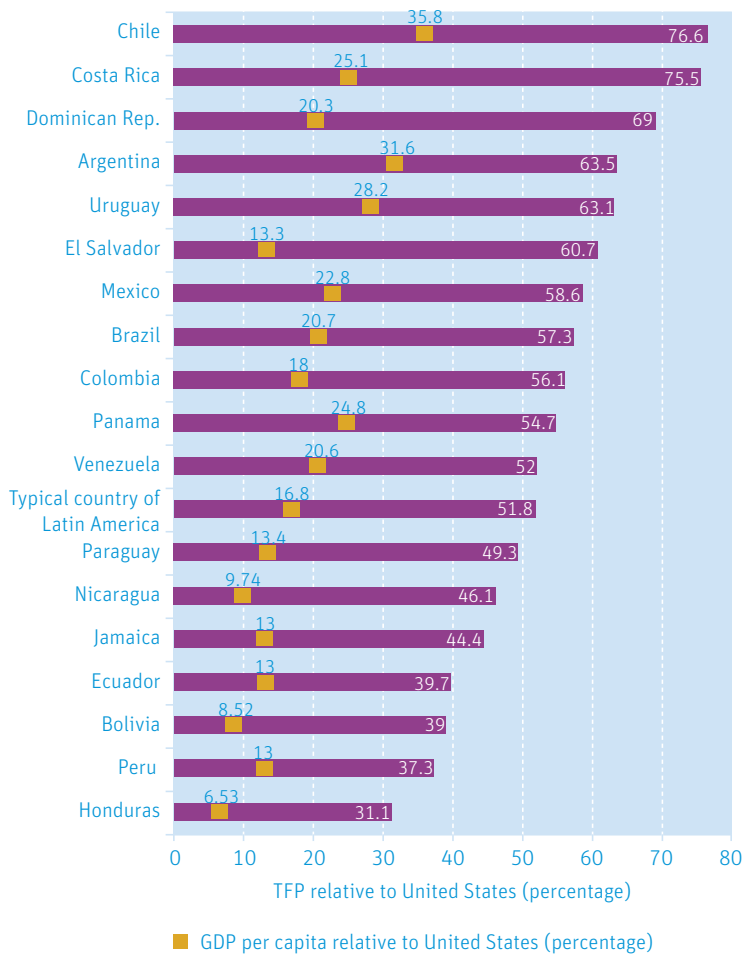
Low Productivity: The Root Cause of Weak Economic Growth

The economies of Latin America and the Caribbean suffer from a chronic low-growth disease caused by low productivity. Unfortunately, the region has become so accustomed to this economic ailment, that it no longer considers slow growth its most pressing problem. And yet, the countries of the region are paying dearly for not assigning economic growth the highest priority.

For example, income per capita in Latin America and the Caribbean was almost one-quarter that of the United States in 1960 while today it is only one-sixth. In contrast, several East Asian countries, which in 1960 had income levels well below those of Latin America and the Caribbean, are fast approaching or have joined the ranks of high-income nations (Figure 1).

If productivity in the region had grown at the same rate as in the United States, the income per capita of the region relative to the United States would have remained unchanged at one-quarter, even with the reported investments in human and physical capital. If, on the other hand, productivity had converged to the U.S. level—that is, if the physical and human resources which Latin American and Caribbean countries currently enjoy were used with the productive efficiency of those in the United States—per capita income would have doubled and the income of the region relative to that of the United States would be one-third.

FIGURE 1 Relative Productivity in Latin America, 2005

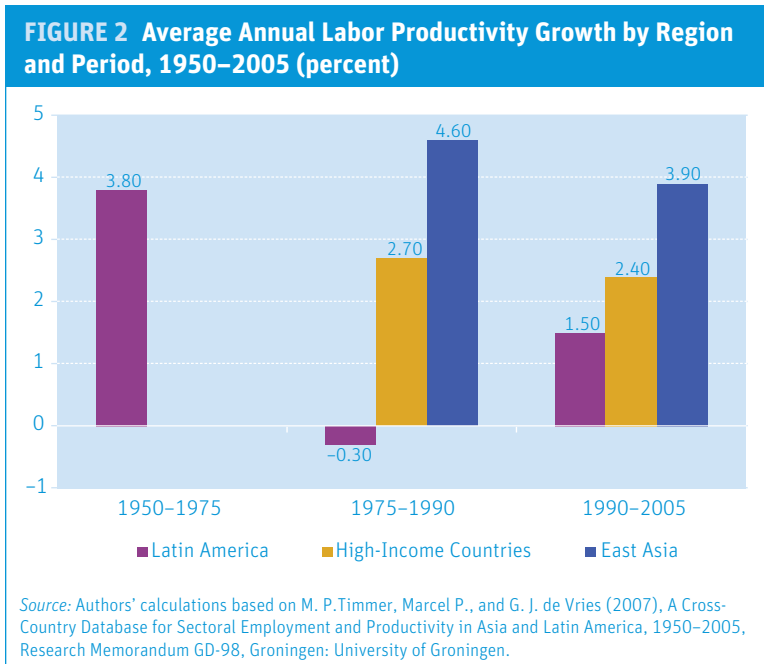


Source: Authors' calculations based on A. Heston, R. Summers, and B. Aten (2006), Penn World Table Version 6.2, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania; World Bank (2008), World Development Indicators Online; R. J. Barro, J., and Lee (2000), International Data on Educational Attainment: Updates and Implications, CID Working Paper No. 42, Center for International Development at Harvard University.

Note: TFP = total factor productivity.

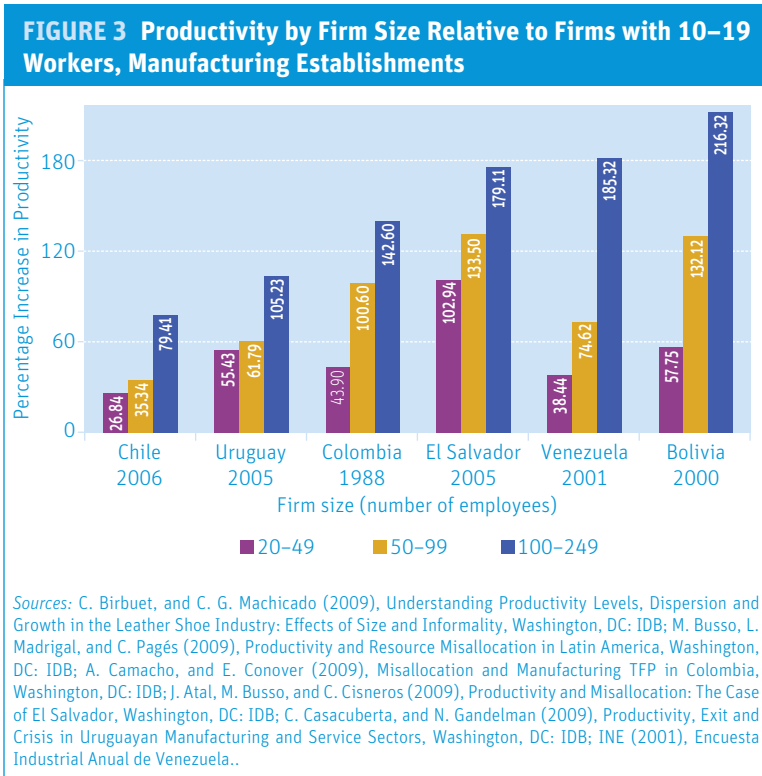
The Concept of Productivity

Raising productivity implies finding better ways to more efficiently use the existing labor, physical capital and human capital of the region. One standard way to measure gains in efficiency is to compute increases in total factor productivity (TFP), that is, the efficiency with which the economy transforms its accumulated factors of production into output. Reporting that TFP grew 1 percent is equivalent to saying that 1 percent more output was obtained from the same productive resources. This is the preferred measure of productivity in this study, which focuses on the drivers of the level and growth of TFP rather than on the determinants for increasing human or physical capital (Figure 2).



Small and Unproductive Companies

The root problem of productivity in the region is too many resources allocated to too many small low-productivity companies, and a dearth of middle-level and high-productivity firms. While in the United States 54 percent of firms have fewer than 10 employees, in Argentina, for example, 84 percent have no more than 10 employees. In Mexico and Bolivia, small companies account for more than 90 percent of all firms. The least productive companies tend to be the smallest: a Latin American company with more than 100 employees can generate, on average, double the output with the same resources of a company with only 10 to 19 employees (Figure 3).

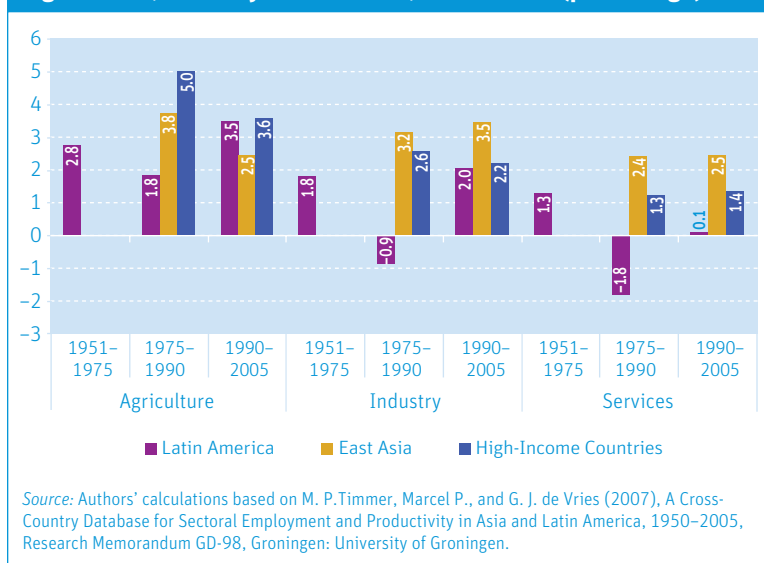


The Key Role of the Service Sector

Raising the productivity of services is a must to boost economic growth and improve the standard of living of all Latin American and Caribbean people. Sixty-one percent of all workers in the region are employed in the non-tradable service sector, and the competitiveness of the primary and industrial sectors depends on having good transport and communications, efficient storage and distribution systems, and many other services.

The productivity gap of service companies in the region compared with the United States is 85 percent. Meanwhile, the gap in productivity for the region's manufacturing sector, which employs about 20 percent of the workforce, is 61 percent. In the agriculture sector, which employs about 18 percent of the total workforce in the region, the gap is only 20 percent (Figure 4).

FIGURE 4 Average Annual Labor Productivity Growth in Agriculture, Industry and Services, 1951–2005 (percentage)



Policies to Foster Productivity

With the right economic policies, Latin American governments can go a long way toward solving the productivity problem. Many of the problems arise from market failures that have yet to be properly addressed, and others from failed economic policies that, often unintentionally, have taken a toll on productivity by increasing allocation of resources to small and inefficient firms.

This study explores whether policies on trade, credit, taxes, social protection, aid to small firms, innovation and industrial promotion are at the root of the problem, or instead part of the cure for the low-productivity-growth disease of the region. This book focuses on the less studied dimensions of productivity that may be vitally important for the design of public policy in Latin America and the Caribbean.

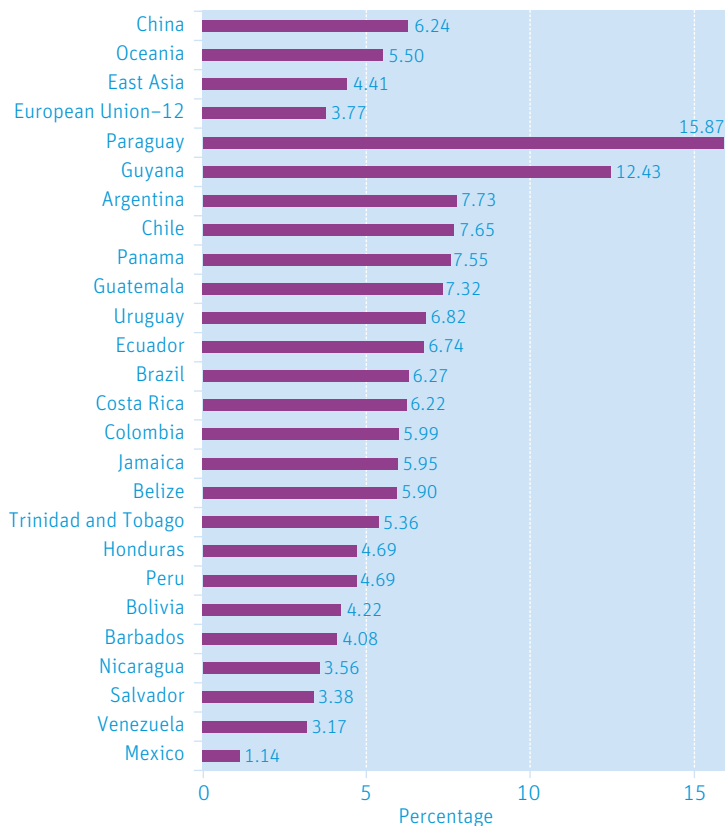
High Transportation Costs and Trade

Free trade has often been touted as a boon to productivity because it exposes producers to greater competition, forcing them to cut costs and increase their efficiency while providing greater access to more and better inputs, particularly capital goods.

However, high trade costs, particularly those associated with transportation, have prevented the region from reaping all the benefits from greater international trade. Moreover, economic resources are diverted to an inefficient transportation system, hurting the overall level of productivity in the economy.

The region as a whole spends in freight nearly twice as much as the United States to import its goods. Most Latin American countries have higher freight rates when exporting to the United States than countries in the Far East and in Europe. This is alarming, particularly when considering countries that are very close to the United States, such as those in the Caribbean (Figure 5).

FIGURE 5 Freight Expenditures as a Share of Exports to the United States, 2006



Source: Authors' calculations based on U.S. Census Bureau dataset on U.S. Imports of Merchandise (various years).

Note: European Union-12 countries are: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Sweden and United Kingdom.

Ports and airports are grossly inefficient in the region. Inadequate physical infrastructure is to blame in some countries, but more important are the support activities for the movement of cargo and the inefficiencies caused by inadequate regulation, lack of competition in services, and deficient operating procedures and information systems.

Too Little Credit

Despite the financial deregulation of the 1990s, the depth of Latin American credit systems remains very low by international standards (Table 1). Consequently, lack of credit is one reason why there is so much dispersion in the productivity of firms. Without credit, productive firms cannot expand and less productive firms cannot make the technological changes and investments needed to raise their productivity.

The credit drought has another damaging effect on productivity: it weakens the incentives for informal firms to comply with tax, legal and social security provisions. This hurts productivity by allowing unproductive firms to survive because they have lower costs than their formal counterparts. Expansion of credit to enterprises can help formalize jobs and, as a result, improve productivity.

TABLE 1 Financial Development and Total Factor Productivity Growth by Region, 1965–2003

Region	Number of countries	Credit to the private sector (percentage of GDP)	TFP growth (percentage)
East Asia	7	77	1.3
Industrial Countries	22	74	0.6
Africa	16	18	−0.1
Latin America	18	31	−0.5

Source: Credit to the private sector: World Bank (2009), The World Business Environment Survey; TFP: C. Daude, and E. Fernández-Arias (2010), On the Role of Aggregate Productivity and Factor Accumulation in Economic Development in Latin America and the Caribbean, Washington, DC: IDB.

Complex Tax Systems

Tax systems in the region remain very complex, segmented and ineffective. It takes an average of 320 hours per year for Latin American and Caribbean firms to file taxes compared to an average of 177 hours in high-income countries (Figure 6). Almost all countries have multiple tax regimes for firms of different sizes, and tax collection is decidedly low: 17 percent of gross domestic product (GDP) in 2005 compared to 36 percent in industrial countries) Taxes on profits are high by international standards, yet collection is very inefficient due to high evasion, particularly among small and micro firms.

As a result, the region's tax systems distort the allocation of productive resources: the sectors and firms that expand are not necessarily the most productive but rather those that enjoy higher tax breaks or can evade their tax obligations more easily. The creation of simplified tax systems for small companies has increased formalization but created incentives for these firms to remain small in order to avoid a sharp drop in their profitability.

Simplifying, unifying and enforcing the tax provisions that apply to enterprises could contribute greatly to productivity; in turn, higher productivity would boost both the gross domestic product and tax receipts.

Social Policies: Good Intentions, Unintended Outcomes

Social policies—either through government spending or regulation—can change behavior in labor markets and hurt productivity by preventing the efficient allocation of resources in the economy.

The strategy of financing social security by taxing formal labor adds to nonwage labor costs and induces workers and companies to pursue informality, misallocating the economies' resources.

Higher labor informality, then, prompts governments to increase social protection to those without a formal job. That, in turn, can

reduce workers' willingness to search for jobs with social security coverage, distorting firms' and workers' decisions on labor allocation and scale of operations, decisions that further hurt productivity.

It is estimated that increased informality causes Latin America and the Caribbean to lose annually between 0.4 and 5.2 percent of output (Table 2). The answer is not to eliminate social policies but to cut the linkage of benefits and funding of those policies with employment. Universal coverage services, such as health insurance, or even retirement pensions, can be funded with fewer distortions by general taxation instead of labor taxation.

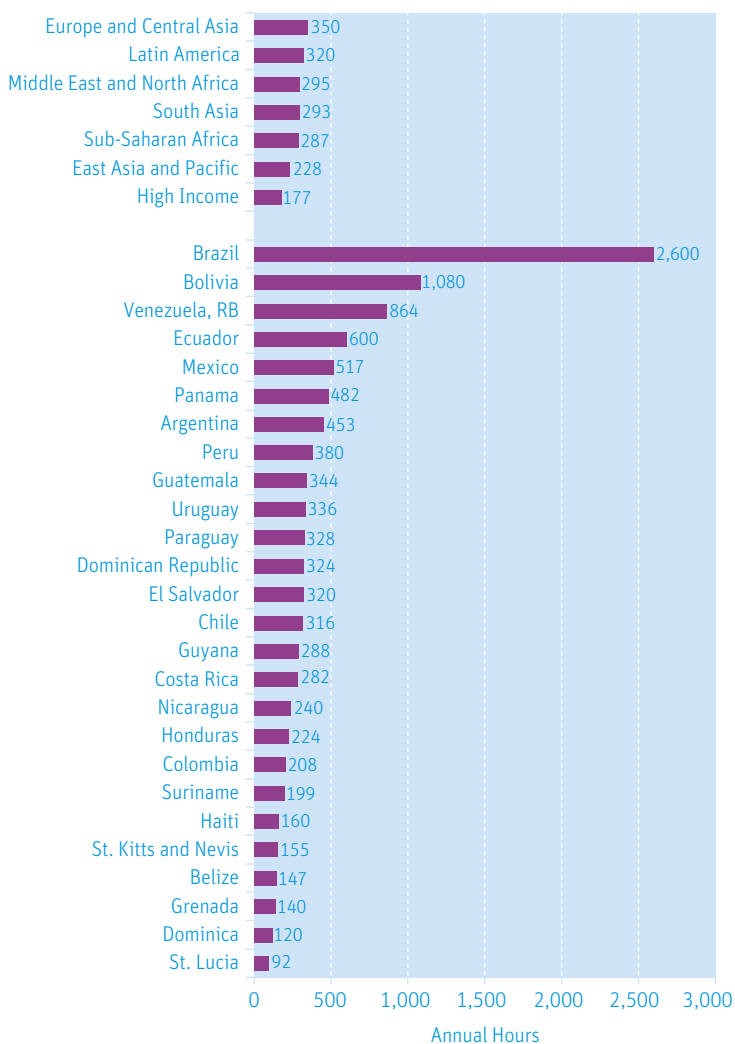
Programs for Small and Medium-Sized Enterprises

Do programs for small and medium-sized enterprises (SMEs) increase firms' productivity? Unfortunately, evaluations of these programs have been few and far between and when done, the variable of focus has been employment rather than productivity.

On average small firms—particularly the smallest ones—do not necessarily use additional resources more productively than medium and large firms. If anything, most of the evidence suggests the opposite: many of the smallest firms are actually too large relative to what they should be because they benefit from implicit subsidies in the form of unpaid taxes and social security contributions. Thus, they may not be able to employ additional labor or capital very productively, particularly relative to larger firms.

The objective of such programs should not be to create jobs but to create productive jobs, which can appear in an enterprise of any size, including but not limited to SMEs. Estimates in this volume suggest that SME programs may indeed boost the productivity of beneficiary firms but, in the aggregate, the effects would be greater if support was open to all firms no matter their size, particularly companies in the formal sector.

FIGURE 6 Time Required to Complete Tax Payments, 2007



Source: Authors' calculations based on World Bank (2009), The World Business Environment Survey.
Note: Information based in 181 countries, with data from 2007–2008. Time is recorded in hours per year, and it measures the time to prepare, file and pay (or withhold) three major types and contributions: the corporate income tax, value added or sales tax, and labor taxes, including payroll taxes and social contributions.

TABLE 2 Output Loss Estimates for the Region

Country	Year	Uncovered salaried workers (million of workers) (I)	Uncovered salaried workers (percentage of salaried workers) (II)	Nonwage labor cost (percentage of salary) (II)	Covered/ uncovered wage gap (percentage of average salary) (III)	Difference in marginal productivity (percentage of salary) (IV) = (II) + (III)	Annual GDP loss range (percentage of GDP) (V) = 0.5 x (I) x (IV) x (average wage)/ GDP
Bolivia	2002	0.9	75.0	37.9	8.72 ^a	46.6	[3.6-5.1]
Brazil	2007	17.8	31.9	53.6	17.9	71.5	[1.8-2.5]
Chile	2006	0.9	20.1	31.7	13.5	45.1	[0.4-0.6]
Colombia	2005	2.4	31.8	53.5	19.9	73.4	[1.1-1.5]
Costa Rica	2006	0.2	18.1	33.0	12.5	45.5	[0.6-0.8]
Ecuador	2007	2.1	66.9	34.8	20.9	55.6	[2.1-4.1]
El Salvador	2005	0.6	49.0	32.4	12.5	44.9	[1.6-2.4]
Guatemala	2006	1.7	63.4	31.8	21.8 ^a	53.6	[1.9-4.1]
Mexico	2002	13.6	50.7	36.4	14.0 ^b	50.3	[1.4-2.1]

Continues on next page

TABLE 2 Output Loss Estimates for the Region (continued)

Country	Year	Uncovered salaried workers (million of workers) (I)	Uncovered salaried workers (percentage of salaried workers) (II)	Nonwage labor cost (percentage of salary) (II)	Covered/uncovered wage gap (percentage of average salary) (III)	Difference in marginal productivity (percentage of salary) (IV) = (II) + (III)	Annual GDP loss range (percentage of GDP) (V) = 0.5 x (I) x (IV) x (average wage)/GDP
Nicaragua	2005	0.7	67.0	51.1	19.8	70.9	[3.9-6.3]
Paraguay	2006	0.9	83.3	27.8	15.0	42.9	[2.7-5.2]
Venezuela	2004	1.9	41.0	22.9	14.0	36.9	[0.4-0.8]

Source: Authors' calculations based on: IMF (2009), World Economic Outlook, and countries' household surveys from Bolivia: INE (2002); Brazil: IBGE (2007); Chile: MIDEPLAN (2006); Colombia: DANE (2005); Costa Rica: INEC (2006); Ecuador: INEC (2007); El Salvador: DIGESTYC (2005); Guatemala: INE (2006); Mexico: INEGI (2002); Nicaragua: INIDE (2005); Paraguay: DGECC (2006); and Venezuela: INE (2004).

Notes:

Column (III) shows the wage gap that remains after controlling for gender, age, education, living in the capital city, economic sector and firm size.

The lower bound in Column (V) assumes that the covered-uncovered wage gap is zero. The upper bound in that column uses the result in Column (III).

^a Due to data availability, not controlling for either firm size or economic sector.

^b Due to data availability, not controlling for firm size.

New Ideas for Innovation

The capacity of a society and its firms to generate and assimilate technological change is a key component of prosperity and growth. Many Latin American firms invest in innovation. Nonetheless, their financial commitment amounts to a mere 0.5 percent of gross revenue compared to 2 percent, or four times higher, for countries in the Organisation for Economic Co-operation and Development (OECD). Firms in the region spend most of their innovation dollars on assimilating technology in new equipment and machinery, while developed countries invest primarily in research and development.

The public sector is the biggest spender on research and development, but its focus is on basic research in universities and public research centers which, with valuable exceptions, have little influence on productive innovation and low scientific performance by international standards.

The main obstacles to innovation in the region are lack of finance, long return periods, small domestic markets, and a shortage of trained personnel. Consequently, deepening credit markets, lowering transportation costs, and improving education and worker training can boost the incentives for firms to innovate. Governments must solve failures in communication among the various actors in innovation systems in order to have positive outcomes in the productive system.

A New Era for Industrial Policy

Increased productivity for the region will depend on the coordinated efforts of individuals, enterprises and institutions in the private and public sectors, paving the way for a new era for industrial policy.

In a departure from the past, industrial policies today are understood as a set of instruments and institutions that facilitate coordination and generate specific public inputs required by specific sectors. Although the final product may be exports or goods tradable internationally, the goal of these new industrial policies is not to stimulate any sector. Rather, the goal is to develop and expand sectors that have potential comparative advantages or positive externalities over other areas in the economy.

Successful policies promote public–private cooperation, exploit the information advantages of the private sector, create incentives for risk-taking, and above all discourage rent-seeking behavior. Outstanding examples of these policies come from the agricultural sector, such as the development of genetically improved rice varieties or soy seeds adapted to the Brazilian savannas through public–private partnerships.

Implementing policies that foster productivity in the region is a challenge because it may go against measures that give immediate political benefits, such as tax exemptions for certain sectors. In addition, such policies may be difficult to implement because economic activity has been diversified, the powers of national governments have been decentralized and political systems have become more participative.

Countries will need to build a politically feasible social consensus in favor of productivity. Such public support is possible. In the past 15 years, after many setbacks, Latin American societies have succeeded in building a social consensus in favor of macroeconomic stability. Thanks to this, the region has come

through the worst international financial crisis since the Great Depression in relatively good shape.

A new consensus now is imperative to allow the region to build upon its macroeconomic stability, paving the way for Latin America and the Caribbean to achieve sustainable long-term economic growth that is stimulated by rising productivity and not the exploitation of natural resources.

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