



## Structural heterogeneity, labour market segmentation and social inequality

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The structural change described in this document, which involves stimulating high-productivity activities, clearly falls into the distributive policy category.<sup>1</sup> In the long term, the economic development policies that would drive this virtuous structural change are distributive initiatives in the broad sense, since they would change the way that the production process generates income. This structural change would create job opportunities in more productive sectors, as well as overall increases in the employment level. As a result, it would raise the income level of the population and lead to a more equal distribution at the end of the process.<sup>2</sup>

In the short and medium terms, however, higher demand for skilled workers for the expanding high-productivity sectors would cause an increase in labour inequality and, therefore, in total inequality. During the transition to more homogeneous economies with higher productivity levels, the large weight of the informal sector in the region's labour markets would continue to represent the main challenge for social protection, an area in which the region still has substantial weaknesses. There could also be significant tension in the labour market, which should have mechanisms to protect the most disadvantaged workers. In this context of structural change, the labour supply must be adapted to match the new demand, in particular in the area of training and capacity-building.

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<sup>1</sup> ECLAC has traditionally made a distinction between distributive and redistributive policies, where distributive policies lead to a change in the conditions that determine income or the original distribution of income and redistributive policies involve ex post changes in distribution (see, for example, Pinto and di Filippo, 1973).

<sup>2</sup> The term employment is used in a broad sense, encompassing the full universe of workers.

The final goal continues to be guaranteeing universal social protection. This challenge is threefold: (a) address historical weaknesses in social protection, which are largely due to contributory system coverage gaps and the shortcomings of the non-contributory system, depriving many people of timely access to protection networks; (b) mitigate the effects of vulnerability caused by fluctuations in growth and the impact of economic crises; and (c) protect the population that is temporarily affected by structural changes in the labour market.

Over the long run, the expansion of high-productivity activities would bring substantial social security improvements. During the transition, however, it would be necessary to establish and strengthen redistributive instruments that offer concrete protection guarantees. These instruments should take into account the particularities and specific needs of each society and population group.

Earlier chapters described how investment patterns reinforce acute productivity gaps and how this, in turn, translates into structural labour market segmentation in terms of access to decent jobs and wages. This segmentation reveals the high rate of informal employment and the low percentage of the population with employment-based social security protection, which together generate deep inequality and large gaps in social protection.<sup>3</sup>

The persistence of high levels of inequality in the region is related to the interactive processes in a chain made up of structural heterogeneity, the labour market and social protection. In this sequence, structural heterogeneity is the basic starting point, the first link in the inequality reproduction chain. The labour market operates as a “hinge” space where the effects of structural inequality are transmitted, where productivity gains are distributed, where job and income stratification takes place, and where social protection is accessed (also in a stratified manner). The third link, social protection, largely reflects what happens in the first two, but it is also a space where inequality can be either reinforced or neutralized, depending on the relevant policies adopted.

In contrast, the positive dynamics between cycle management and structural change with productive convergence enables the economy to develop its potential and, in the long run, helps society benefit from the changes more equally. The main mechanism through which these two processes converge (productive development and social equality) is undoubtedly the labour sphere, which could be called the main driver of social inclusion. It is here that work needs to be done to ensure that a broader social inclusion unfolds in a context of greater skills development for all members of society, better opportunities to productively reward these skills and abilities and better conditions for harmonizing the interests of the different actors in the labour sphere.

Achievements in the area of employment are not only related to a greater convergence of job quality and the subsequent narrowing of the gap in wages and access to social security, but are also positioned within the framework of “employment with the full endowment of social rights”, as ECLAC argues in *Time for equality: closing gaps, opening trails* (ECLAC, 2010a). This means that the positive impacts of structural change should be articulated with labour market institutions and collective bargaining, thus contributing to fulfilment of the specific rights of decent work and a more equal distribution of the fruits of progress and productivity gains. Thus, as described in *Time for equality*, greater equality in the labour market is also related to income and citizenship.

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<sup>3</sup> Workers in the informal sector are defined as unskilled independent workers, unpaid workers, microenterprise owners and employees (excluding skilled workers) and domestic workers. Another way to analyse job quality is based on whether the job has social protection benefits.

Transitioning from a highly heterogeneous production structure where household income is markedly unequal requires examining what happens in the labour market, in terms of both employment and wages. Differences in productivity translate into differences in wages, which, together with employment, have an impact on household distribution patterns. Nevertheless, there are several factors at play in this transition that make it a complex relationship, as analysed below. These factors include the ownership of productive and non-productive assets,<sup>4</sup> education level, public policies on cash transfers and taxes, labour market institutions and family structure.

*Time for equality* highlighted the importance of considering the narrowing of productivity gaps jointly with its impact on inclusion and equality of both labour income and access to productive assets, as well as with a set of redistributive social policies that mitigate the risks for the disadvantaged population and promote the development of capacities across all segments of society (ECLAC, 2010a). *Time for equality* also held that social equality is not at odds with a dynamic economy that transforms the production structure. Rather, what is needed is to grow with less structural heterogeneity and more production development and to promote equality by enhancing individual capacities and mobilizing State resources. As already indicated, in the area of equality, the State must take responsibility for increasing the participation of excluded and disadvantaged sectors in the benefits of growth. To this end, equality of citizenship —of rights, of public representation, of full status under the law— is the link between policy and social equality. That requires a State that is involved in setting the course for development and has a real capacity to allocate resources and carry out regulatory functions.

This chapter explores the issues addressed in *Time for equality* more deeply, with an emphasis on how positive structural change should work to advance employment and income equality. The chapter opens with a discussion of the links between heterogeneity and inequality. The labour market is a key component for understanding this relationship, and it is therefore examined in greater detail from the perspective of both business cycles and production structure. The analysis focuses on the inequalities generated in the labour market, which can be addressed from the perspective of functional income inequality or from the perspective of individual labour income. Finally, the chapter looks at the evolution of income inequality in the region in the last two decades.

## A. Structural heterogeneity and social inequality: Complementary approaches

Over the last two decades, ECLAC has emphasized two distinctive characteristics of the economic and social structure of the region: the strong heterogeneity of the production structure and the high levels of inequality in different areas, which are usually captured in high income inequality indexes. As argued in *Time for equality* (ECLAC, 2010a), structural heterogeneity is a key factor to consider when it comes to designing policies that seek to balance higher growth and equality.

The early studies that developed the idea of structural heterogeneity identified three segments: a traditional segment, with low productivity and income levels; a modern segment, mostly made up of export industries and large firms; and an intermediate segment, where the

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<sup>4</sup> Productive assets can be defined as those which, together with employment, are directly involved in the production of goods and services, and thereby generate income. Other household physical or financial assets (non-productive assets) also generate income, through housing leases or financial investments, and they affect the final income distribution without being directly associated with production markets.

productivity level is around the average for the countries in the region (ECLAC, 1964; Pinto, 1973). Structural heterogeneity is characterized by the coexistence in a single economy of production sectors that would be characteristic of economies at different stages of development, with low-productivity segments figuring heavily. The countries in the region tend to have a poorly diversified, commodity-based export structure; this impacts the production structure, where difficulties in the diffusion of technical progress hinder the implementation of a solution and perpetuate the productivity gaps.

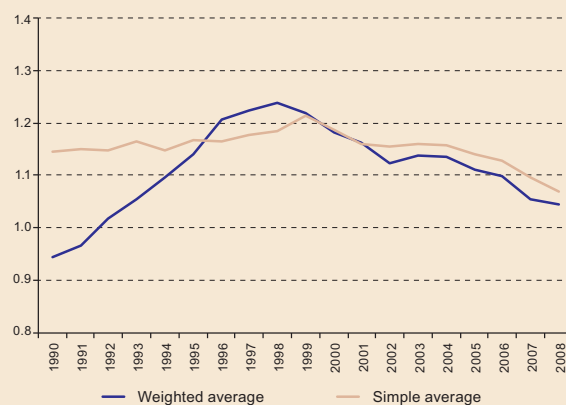
ECLAC has used several indicators to look at structural heterogeneity from two main perspectives, one focused on the differences in productivity among economic sectors and one focused on differences among units of production according to company size and type of labour market insertion (see box V.1). These two measures of heterogeneity (by sector and by production segment) are complementary, and they both contribute to understanding structural heterogeneity in the region.

## Box V.1

## MEASURING STRUCTURAL HETEROGENEITY

Under one approach, structural heterogeneity is measured by the coefficient of variation of the productivity levels of different sectors (ECLAC, 2010a). Both the simple and the weighted averages of this indicator show an increase in structural heterogeneity from 1990 to 1998 (when the region underwent a period of substantial structural reform including trade opening and investment in natural resource and commodity sectors), with a downward trend thereafter (see the figure below). The indicator based on weighted averages rose more than the one based on the simple average: it increased 10.9% from 1990 to 2008, and 31.3% from 1990 to 1998.<sup>a</sup>

## LATIN AMERICA (11 COUNTRIES): COEFFICIENT OF VARIATION OF INTERSECTORAL PRODUCTIVITY, 1990-2008



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the CEPALSTAT database and International Labour Organization, LABORSTA database.

Based on the value of the indicator at the end of the period, the region can be broken down into three groups of countries. The first group is characterized by severe heterogeneity (indicator equal to or greater than 1.2) and includes the Bolivarian Republic of Venezuela, Ecuador and Mexico, where productivity is sharply differentiated by branch of economic activity. At the other extreme, the production structure in Argentina, Chile, Costa Rica and Uruguay exhibits moderate heterogeneity by regional standards (indicator below 0.9). The intermediate group of countries includes Brazil, Colombia, El Salvador and Peru, which have indicators ranging from 0.9 to 1.2.<sup>b</sup>

The second measure of structural heterogeneity is based on the labour market (Infante, 1981; Tokman, 1982). It identifies three production segments based on company size and the occupational category of employees (Infante, 2011). The underlying rationale is that each sector encompasses production segments with marked differences in productivity. The high-productivity segment comprises employers and workers in firms with 200 or more employees, while the low-productivity one includes employers and workers in enterprises with up to 5 employees, as well as unskilled self-employed workers, unpaid family members and domestic workers (that is, the informal sector). The medium-productivity segment is made up of employers and workers in small and medium-sized enterprises (6 to 199 employees).

## Box V.1 (concluded)

Based on the differences in productivity among the three segments and taking account of the low segment's large share of total employment, the countries are classed in three groups: those with moderate structural heterogeneity, those with intermediate structural heterogeneity and those with severe structural heterogeneity (see the table below). So much statistical information is required that this indicator could only be built for a specific point in time (2009), so there is no way to examine its long-term trend.<sup>c</sup>

## COUNTRY CLASSIFICATION BY DEGREE OF STRUCTURAL HETEROGENEITY

Moderate	Intermediate	Severe
Argentina	Brazil	Bolivia (Plurinational State of)
Chile	Colombia	Dominican Republic
Costa Rica	Panama	Ecuador
Uruguay	Mexico	El Salvador
	Venezuela (Bolivarian Republic of)	Guatemala
		Honduras
		Nicaragua
		Paraguay
		Peru

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of R. Infante, "América Latina en el "umbral del desarrollo". Un ejercicio de convergencia productiva", *Working Paper*, No. 14, Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), June 2011, unpublished.

This classification is consistent with the country classification according to the share of formal and informal employment. In the four countries classified here as having moderate structural heterogeneity, over 60% of the economically active population (EAP) was working in the formal sector in 2010. In the group with intermediate structural heterogeneity, four of the five countries (the Bolivarian Republic of Venezuela, Brazil, Mexico and Panama) had less than 60% but more than 50% of the economically active population working in the formal sector in 2010. For the rest of the countries, which are classified here as having severe structural heterogeneity, less than 50% of the economically active population was working in the formal sector. Colombia is an exception, in that the formal sector accounted for around 48% of the total economically active population in 2010 (very close to the 50% threshold).

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC).

<sup>a</sup> The weighted average is highly sensitive to the trend of the indicator for Mexico and Brazil.

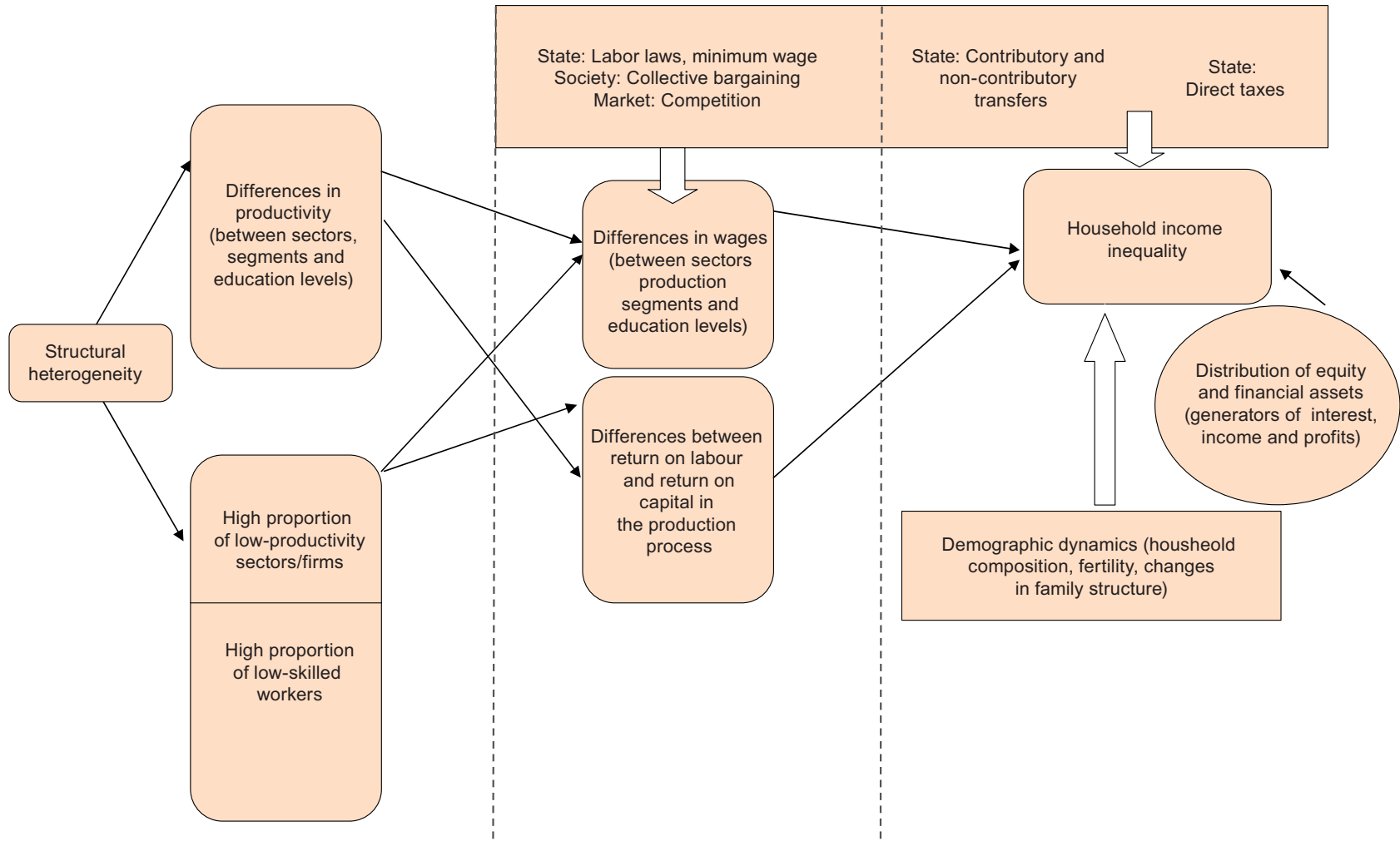
<sup>b</sup> The indicators are calculated using data from CEPALSTAT and LABORSTAT (International Labour Organization).

<sup>c</sup> The two criteria for classifying the region's production structures yielded the most widely divergent results in Mexico. Table V.1 shows Mexico in the intermediate group.

Wages are a key link between structural heterogeneity and income inequality. To better understand the differences in labour income, it is necessary to take into account not only the differences in productivity among economic sectors or production segments, but also differences in skills development, which very much depend on the socioeconomic background of the workforce and on the power asymmetries between employers and employees that surface during wage negotiations. The disparity in productivity is apparent not only between economic sectors and production segments, but also within them, where individual workers can have very different levels of productivity associated with differences in their education level. The promotion of positive structural change (and job growth in high-productivity sectors) therefore needs to be complemented with a stronger effort to equalize opportunities for skills development, in both the formal education system and in training systems.

Diagram V.1 illustrates how differences in the production structure translate (though not automatically) into wage differences and, hence, into differences in household income.

Diagram V.1  
FROM STRUCTURAL HETEROGENEITY TO INEQUALITY



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Production structure heterogeneity entails substantial differences in productivity among economic sectors and production segments, which are also related to differences in the education levels of the economically active population. Another characteristic of the region's production structures is the large weight of the low-productivity sector, which mostly employs workers with a low education level. Moreover, the sectors with the lowest productivity levels usually have very low social security coverage.

In a neoclassical framework, workers' real wages would equal their marginal productivity. Labour markets are far from competitive, however, because of power asymmetries between employers and employees, very unequal access to production assets, information deficits and imperfect mobility, among other factors. These various factors pull the real functioning of labour markets away from the theoretical model of perfect competition, making the relationship between wages and productivity imperfect, although it is verifiable in the countries of the region (see box V.2). Labour market institutions also come into play in this link between productivity and wages, since they affect workers' capacity to benefit from the fruits of the production process and the way in which the returns on capital and labour are distributed to pay for their contribution. Wage negotiations play a key role in this link: the empirical evidence indicates that centralized bargaining is associated with lower levels of wage inequality among covered workers (for example, Aidt and Tzannatos, 2002; Freeman, 1984; Card, 1992), especially within each sector. This equalizing potential of collective bargaining will be larger in more formalized economies, where it covers a larger share of the workforce. Wage negotiation also means higher average salaries or, equivalently, a greater capacity for workers to benefit from the fruits of the production process. Strengthening collective bargaining is therefore essential for ensuring that productivity increases translate into wage increases, which in turn increases the weight of the wage bill in total income and helps narrow inequality gaps.

#### Box V.2

##### SECTOR PRODUCTIVITY AND WAGES

In the neoclassical model, in a state of equilibrium a worker's real wages should equal the marginal productivity of his or her work. This principle is derived from a series of very restrictive assumptions on the functioning of markets and the behaviour of economic agents, so it is not surprising that the relationship is hard to prove empirically.

The hypothesis set out by ECLAC—that the high degree of productive heterogeneity in the region is linked to high income inequality—also rests on a link between labour productivity and labour income. It is much broader than the orthodox theory, however, since it incorporates institutional (and other) factors that influence the productivity-income relationship.

In its original formulation, the concept of structural heterogeneity is based on differences in labour productivity—not between individual workers, but between economic sectors or production segments (a combination of sectors and company size). Sectoral labour productivity refers to average productivity (that is, the ratio between sector output and the number of workers); theoretically, wages should include all forms of payment to workers, including remuneration and benefits.

Documenting the relationship between productive heterogeneity and income inequality is not easy, even if the analysis is limited to income from the labour market. The availability of time series data with an appropriate level of aggregation represents a significant hurdle. Efforts to correlate the coefficient of variation for sectoral labour productivity with labour income inequality, or even with the coefficient of variation for labour income by sector, have not produced clear results for the countries in the region. One reason is that the time series are relatively recent, and the level of disaggregation they support (nine economic sectors) is very limited for capturing this type of phenomenon. Nevertheless, all of the country case studies analysed display considerably greater dispersion in sectoral productivity than in average labour income by sector.

What emerges from the data is that in the different countries, the ranking of economic sectors by average labour productivity versus average wages is similar. The following table presents, for each economic sector in 10 countries of the region in 2008, the correlation between productivity or average labour income for the sector and the average for the whole economy. With a few exceptions, the economic sectors with above-average productivity relative to the economy as a whole (greater than 1) also have higher wages than the economy-wide average. As mentioned above, the inequalities are greater in terms of productivity than in terms of labour income.

Box V.2 (concluded)

**CORRELATION OF LABOUR PRODUCTIVITY AND LABOUR INCOME, BY SECTOR,  
COMPARED TO THE AVERAGE FOR THE ECONOMY, 2008**

	Labour income	Productivity	Labour income	Productivity	Labour income	Productivity	Labour income	Productivity	Labour income	Productivity
	Argentina		Brazil		Chile		Colombia		Costa Rica	
Agriculture	1.00	0.60	0.59	0.28	0.66	0.44	0.58	0.48	0.83	0.61
Mining and quarries	2.00	4.18	1.66	3.95	1.65	3.70	1.34	5.57	0.63	1.42
Manufacturing	0.98	1.30	0.98	1.01	0.93	1.13	1.12	1.06	0.88	1.70
Electricity, gas and water	1.27	4.53	1.67	7.37	1.07	3.75	1.68	6.07	1.49	1.61
Construction	0.90	0.64	0.80	0.62	0.99	0.89	0.94	1.03	0.83	0.62
Wholesale/retail, hotels and restaurants	0.92	0.71	0.95	0.46	0.90	0.59	0.97	0.50	0.91	0.66
Transport, warehousing and marketing	1.15	1.54	1.17	1.57	1.12	1.29	1.02	0.83	1.17	1.58
Financial institutions	1.46	1.69	1.52	2.16	1.64	2.43	2.27	2.30	1.43	1.44
Community, social and personal services	0.91	0.57	1.05	0.96	0.97	0.54	1.67	0.88	1.04	0.68
Total	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	El Salvador		Mexico		Peru		Uruguay		Venezuela (Bolivarian Republic of)	
Agriculture	0.46	0.54	0.77	0.31	0.52	0.22	1.01	0.97	0.73	0.41
Mining and quarries	0.92	4.47	1.73	13.10	2.89	9.03			1.77	12.38
Manufacturing	0.87	1.41	0.92	1.14	1.11	1.39	0.95	0.89	0.96	1.28
Electricity, gas and water	1.58	4.78	1.28	2.60	2.35	6.07	1.64	1.63	1.58	4.91
Construction	0.98	0.57	0.95	0.74	1.29	1.47	0.79	0.96	1.12	0.84
Wholesale/retail, hotels and restaurants	0.99	0.64	0.98	0.65	0.89	1.06	0.82	0.63	0.85	0.50
Transport, warehousing, marketing	1.28	2.11	1.19	1.76	1.15	1.29	1.25	2.23	1.18	1.03
Financial institutions	1.35	7.17	1.93	3.64	2.00	2.05	1.61	3.04	1.23	2.84
Community, social and personal services	1.27	0.62	1.05	0.67	1.15	0.68	0.96	0.43	1.04	0.61
Total	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of information from the CEPALSTAT database; International Labour Organization (ILO), LABORSTA database and processing of data from household surveys.

Adopting a minimum wage (or increasing it), another important feature of labour markets, tends to produce an increase in wages for low-income workers, contributing to a reduction in inequality (DiNardo, Fortin and Lemieux, 1996; Freeman, 1996).<sup>5</sup>

This determines how the factors are paid for their contribution to the production process (basically, return on labour and return on capital) as well as the differences between and within these two sources of income. The manner in which these individual income gaps, together with the differences in returns on labour and capital, pass through to household income inequality, is determined by public policies, access to non-productive assets and demographic factors. With regard to public policies, contributory transfers (pensions) and non-contributory transfers are

<sup>5</sup> The effects of minimum wages on employment have been widely examined, and the findings are contradictory. Minimum wages should be in line with per capita GDP in an economy because minimum wages that are too high can have a negative impact on employment, especially for young or less skilled workers, who are usually in this income range.



important sources of total family income, and whether they contribute to greater levels of equality depends on how progressive they are. Similarly, direct taxation can also contribute to greater equality of available household income, to the extent it is progressive.<sup>6</sup> The level of income inequality in a society will depend on two additional factors: access to non-productive assets and demographic factors. Non-productive assets contribute to individual and household wealth, and they generate highly concentrated income flows (interest, profits or rents).<sup>7</sup> Demographic factors, especially those that have to do with household makeup (family structure, number of children and educational homogeneity, among others) also affect the distribution of income in a country.

Thus, gaps in the production structure of the region's economies in turn generate gaps that typify segmented and unequal societies. Segmentation in productivity is fed by gaps in several areas: workforce education level and skills development; access to domestic and foreign commercialization markets and to credit for production investment; the incorporation of technological progress in production processes; how well coordinated the political institutions for development and support are; social capital networks; and, more recently, connectivity. Gaps in all these areas tend to be linked; together they form a strongly heterogeneous production structure that ranges from very low-productivity urban informal sectors and scattered rural ones to highly dynamic, internationally competitive fields.<sup>8</sup>

#### Box V.3

##### STRUCTURAL HETEROGENEITY AND INEQUALITY IN BRAZIL

A study of Brazil (Soares, 2012) under the "Inclusive development in Brazil" project conducted jointly by ECLAC and the Institute for Applied Economic Research (IPEA) calculates the coefficient of variation of sectoral productivity for the period 2000-2009, using a high level of disaggregation (49 economic sectors). The coefficient of variation fell steadily in the last decade. This drop occurred simultaneously with a reduction in income inequality for both total income and labour income, as shown in the figure below.

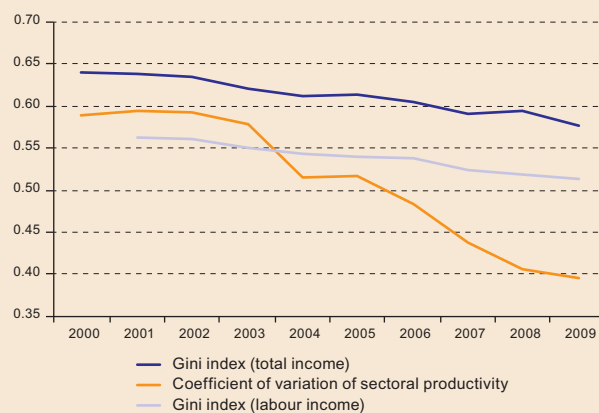
The study mentioned looks at the link between the two trends, starting by demonstrating that there are substantial wage differences between economic sectors (groups), even after controlling for the traditional variables that reflect the accumulation of human capital, and that these differences were relatively stable over the decade. This finding suggests that the wage differences are associated with differences in productivity across economic sectors. The author also presents an additive decomposition of the Theil index, which allows total inequality to be broken down into the component explained by differences between groups and the component explained by differences within groups. The inter-group component reflects differences in average income among the different groups, while the intra-group component captures income dispersion within a given group. The result showing that inter-sector inequality as a portion of total inequality has shrunk is consistent with the hypothesis that a reduction in structural heterogeneity could explain the recent drop in inequality in Brazil. The study highlights the need to move forward on empirical research on the link between wage inequality and structural heterogeneity, as there are few specific studies and they are not yet conclusive. This recommendation applies to all the countries of the region.

<sup>6</sup> The assumption here is that direct taxation operates at the family level rather than the individual level, but this does not change the argument.

<sup>7</sup> In developed countries, where there are specific surveys on the distribution of wealth, it has been found that wealth is usually much more concentrated than household income. Unfortunately, data for a quantitative assessment of this point are not available in the region.

<sup>8</sup> Empirically proving the relationship between heterogeneity in the production structure and income inequality would require countries to compile data with wide sectoral, geographic and historical coverage, to support the calculation of indicators that sufficiently capture the link. This is, therefore, yet to be done.

Box V.3 (concluded)

**BRAZIL: STRUCTURAL HETEROGENEITY AND INEQUALITY, 2000-2009**

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special processing of household surveys, and data from the Inclusive Development Project in Brazil, ECLAC and the Institute for Applied Economic Research (IPEA).

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of S. Soares, "A Queda na heterogeneidade estrutural explica a queda da desigualdade dos rendimentos do trabalho? Uma análise preliminar", IPEA/ECLAC project on inclusive development, Brasília, 2012.

## B. The labour market: Employment and income

The labour market and its institutions are a point of connection between production structure heterogeneity and sharp household income inequality. Access to employment and access to labour income are the basic determinants of income inequality. Following the logic of the previous chapters, the link between employment and the business cycle, on the one hand, and the production structure, on the other, is fundamental. Both aspects are explored below. With regard to labour income, the discussion covers its relationship with the business cycle and analyses inequality from a functional and a personal perspective.

### 1. Employment and the business cycle

As described in chapter 1, in the last two decades (1990-2010), Latin America and the Caribbean recorded an economic growth rate of over 3% a year, on average —far better than in the 1980s. The period featured two growth phases (1991-1997 and 2003-2008), separated by five years (1998-2002) of relative stagnation (or even contraction in some countries).

The two growth phases differ substantially in terms of employment dynamics and, therefore, the evolution of living conditions. In general, higher economic growth rates would be expected to coincide with an increase in the demand for labour and a higher employment rate, which would contribute to reducing the unemployment rate. This positive dynamic is not always triggered, however. The production structure, based on the size of the economic agents involved, is a key factor for explaining employment dynamics across the cycle. In the absence of negotiations and labour protection policies, larger firms tend to cut jobs during the contraction phase of the cycle and hire on workers during the growth phase. Smaller firms are more resistant to firing workers during recessions and they hire more slowly during the growth phase, but they are especially vulnerable to a drop in demand. Microenterprises can serve as a refuge in an

economic crisis, when employment in these businesses may even increase since they are largely independent and often informal. This reflects an effort by workers to survive in societies with no unemployment insurance. Labour supply dynamics are also a key factor in the impact of growth processes on employment and especially on unemployment (ILO, 2000).<sup>9</sup>

The dynamics of the business cycle affect not only the number of jobs created but also their quality. In recession phases, economic contraction tends to increase unemployment and expand the informal labour sector. The slow economy in the downward phase of the cycle leads broad sectors of the population to seek alternatives to the formal labour market as a source of income (ECLAC/ILO, 2009). This expansion of the informal sector brings a lower standard of living because it tends to be associated with lower-productivity work and, therefore, lower income and little or nothing in the way of social protection mechanisms tied to employment. But living conditions would deteriorate even further if these workers were fully unemployed. The impact is strongest on lower-skilled, lower-income workers, women and young persons, as well as their households, which are the hardest hit during recessions. The experience of the 2008/2009 crisis indicates, however, that there is room for countercyclical policies focused on employment and low-income households, which can alleviate the negative impact. Such measures include the promotion and development of direct employment programmes; support for investment in infrastructure; hiring subsidies; increases in public wages or minimum wages; the strengthening, protection or expansion of anti-poverty and social assistance programmes; and the development or expansion of transportation, housing and food subsidies (ECLAC/ILO, 2011).

The relationship between economic growth and changes in employment is different for each country. The correlation between economic growth and employment is higher in countries with a higher average income, where high- and medium-productivity sectors figure more heavily. The reason is that wage employment is more closely correlated with economic growth than other occupations, and, in higher-income countries, a larger share of the labour force works in wage jobs (Weller, 2012).

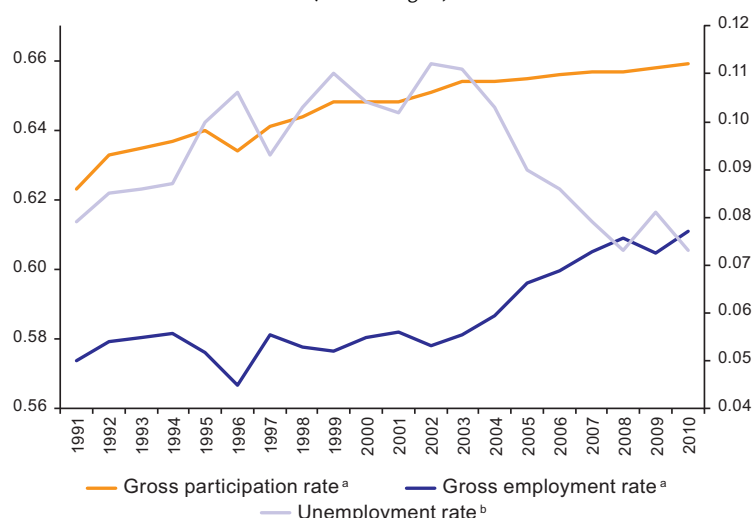
Over the past two decades, the countries of the region have seen that rising unemployment and stagnating employment do not occur solely during periods of economic stagnation or recession (see figure V.1 and table V.1). The behaviour of the labour market in the region in 1990-1997 reveals that economic growth was not accompanied by an improvement in employment indicators (ECLAC, 2010b). In this period, the unemployment rate grew 17.7% (from 7.9% to 9.3%), while the gross employment rate only increased 1.3% (from 57.3% to 58.2%) in a context of growing labour market participation. The gross participation rate increased 2.9%, from 62.3% to 64.1%, driven by the growing participation of women and ongoing rural-urban migration.<sup>10</sup>

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<sup>9</sup> An increase in the participation rate, that is, an increase in the share of the working-age population that is active in the labour market, can partly neutralize the effect of changes in economic activity on unemployment. If only some of the people who enter the workforce find jobs while the rest remain unemployed, the unemployment rate can remain stable or even increase, despite the increase in the employment rate.

<sup>10</sup> The gross participation rate is the share of the economically active population (or labour force) in the total population. The unemployment rate is the share of unemployed in the economically active population. These two indicators are then used to build the gross employment rate, defined as the correlation between the employed population and the total population.

Figure V.1  
LATIN AMERICA AND THE CARIBBEAN: MAIN LABOUR MARKET INDICATORS, 1991-2010  
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from CEPALSTAT.

<sup>a</sup> The gross participation rate and the gross employment rate are measured on the left axis.

<sup>b</sup> The unemployment rate is measured on the right axis.

Table V.1  
LATIN AMERICA AND THE CARIBBEAN: CHANGES IN GDP AND LABOUR MARKET INDICATORS, 1991-2010  
(Percentages)

	1991-1997	1998-2002	2003-2010	1991-2010
Cumulative rates				
Change in GDP	26.2	8.9	35.6	86.5
Change in unemployment rate	17.7	20.4	-34.8	-7.6
Change in gross participation rate	2.9	1.6	1.2	5.8
Change in gross employment rate	1.3	-0.6	5.7	6.5
Average annual rates				
Change in GDP	3.4	1.7	3.9	3.2
Change in unemployment rate	2.4	3.8	-5.2	-0.4
Change in gross participation rate	0.4	0.3	0.2	0.3
Change in gross employment rate	0.2	-0.1	0.7	0.3

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from CEPALSTAT.

Several factors had a negative effect on employment in the 1990s, largely associated with the economic reforms implemented in the region and, to a lesser extent, with the limited way the region incorporated the techno-production transformations occurring in the world economy. Key economic reforms included trade opening and stabilization plans based on the exchange rate as a nominal anchor, which produced a currency appreciation trend as analysed in chapters II and IV. The growing supply of imports (and falling import prices) broke production linkages and weakened the production system. The result was fewer jobs, primarily in labour-intensive activities, and output of durable consumer goods and capital goods fell in countries with a relatively more developed manufacturing sector.

External factors also played a role. In the first half of the 1990s, productivity grew strongly as production structures were modernized to incorporate automation processes that generated labour savings and, hence, sharply cut labour costs. The new operating logic of transnational firms – with their global input supply schemes – also weakened the links between subsidiaries located in the region and local companies, with a negative effect on employment.

Labour market institutions in the region also underwent some important changes. Beyond the institutional differences existing at the country level, the region in general tended to promote reforms aimed at deregulating the labour market and making it more flexible, with varying degrees of emphasis and intensity (Lora, 1997; Lora and Panizza, 2003). The package of trade, financial and labour reforms did not create the number of jobs expected by the advocates of regime change (Correa, 2002; Weller, 2000). Thus, in an institutional context characterized by weak employment policies, increasing trade openness (in many cases heightened by exchange rate appreciation) and a global process of labour-saving techno-production transformations, the growth of the 1990s (1991-1997) did not translate into significant job creation and did not avoid a sharp rise in unemployment. Consequently, the severe distributive problems that had intensified in the previous decade were not corrected.

In 1998-2002, the region's GDP barely grew 8.9% (with an average annual rate of 1.7%). The unemployment rate continued to follow an upward trend, as did the gross participation rate, while employment virtually stagnated. A comparison of the growth phases of 2003-2010 and 1991-1997 reveals that the annual GDP growth rate was slightly lower in the 1990s than in the 2000s. Nevertheless, the unemployment rate grew significantly in the 1990s, together with the informal sector. In the later period, in contrast, growth was accompanied by a drop in the unemployment rate and an increase in formal employment.

Thus, unemployment began to ease for the first time in two decades. Unlike the previous growth phase (when volatility had a strong effect on employment trends due to weak countercyclical and employment policies), actions were now taken to stimulate growth, with a positive effect on job creation (ECLAC/ILO, 2011).

The redistributive policies had a direct effect on the demand for wage goods and the increase in their production for the domestic market, thereby contributing to Keynesian efficiency.<sup>11</sup> This trend, together with a favourable international context of economic growth both at the global level and, in particular, among the emerging economies, supported positive employment growth rates in the region, with the exception of the international crisis in 2008-2009.

Over the business cycles of the last two decades, the region saw substantial qualitative transformations; they are described in the next section.

## 2. Employment and the production structure

In the past two decades, changes in the production structure have had a number of effects on employment. The services sector, which accounts for the largest number of jobs in the region, has increased its relative share, to the detriment of agriculture (see table V.2). This change has been unfolding for more than two decades, and it persisted throughout both the growth and the stagnation

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<sup>11</sup> Wage goods are those goods that make up the consumption basket purchased by wage workers, including food, clothing and basic services.

phases in the period under consideration.<sup>12</sup> The agricultural sector has become less labour-intensive, and agricultural employment is shifting toward more precarious jobs in the modern agro-export sector (Weller, 1998). The relative share of employment on small farms, where job quality tends to be poor, has fallen. The use of capital-intensive methods had an impact, albeit fairly small, on agricultural employment, while lower-productivity services continue to be labour-intensive. The contraction in the relative share of primary activities in total employment was smallest in the countries of South America.

Table V.2  
DISTRIBUTION OF EMPLOYMENT BY ECONOMIC SECTOR, 1990-2010  
(Percentages)

	Latin America			South America <sup>a</sup>			Central America			Mexico			Brazil		
	Agriculture	Industry	Services	Agriculture	Industry	Services	Agriculture	Industry	Services	Agriculture	Industry	Services	Agriculture	Industry	Services
1990	20	25	56	18	25	58	36	21	43	22	26	52	16	25	59
1997	18	23	59	17	22	61	30	22	48	17	27	56	16	22	62
2003	16	23	62	15	22	63	26	23	51	15	27	58	13	23	64
2010	13	24	64	12	23	64	21	21	58	11	26	62	10	24	66

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

<sup>a</sup> South America includes Brazil.

Table V.3 shows the share of wage jobs in total employment. The employment structure shifted significantly in the most recent period of economic growth (2003-2010), when the share of public- and private-sector wage earners in total employment increased. This share was relatively stable in the first economic growth period (1990-1997) and in the “lost half decade” (1998-2002). The recent uptick is still incipient, but it is a good sign in that it indicates that the growth of employment is being driven by the creation of wage jobs. While self-employment continues to serve as a backup job option and to be concentrated in low-productivity areas, it has now lost ground for the first time in two decades.<sup>13</sup>

Table V.3  
WAGE EMPLOYMENT: PERCENTAGE OF WAGE JOBS IN TOTAL EMPLOYMENT,<sup>a</sup> 1990-2010

	Latin America	South America <sup>b</sup>	Central America	Mexico	Brazil
1990	65.2	63.1	61.0	72.5	64.6
1997	66.9	65.8	61.9	78.5	69.6
2003	65.6	64.4	59.7	71.8	70.0
2010	69.0	66.4	63.6	79.1	73.4

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

<sup>a</sup> Includes public and private sector wage earners.

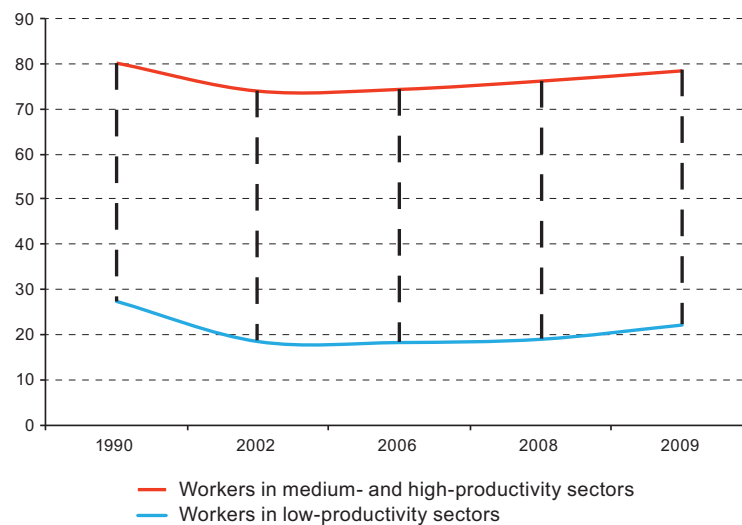
<sup>b</sup> South America includes Brazil.

<sup>12</sup> Since the 1950s, the economies in the region have undergone significant transformations, with the contribution of agricultural sectors declining, albeit at a slower pace in the 1980s (when smallholder agriculture served as a refuge for displaced workers during the economic crisis). The importance of agricultural employment continued to trend down in the second half of the 1980s and in the 1990s (Weller, 1998).

<sup>13</sup> In addition to wage earners and self-employed workers, total employment includes employers, who accounted for around 5% throughout the period.

The evolution of the relative shares of the formal and informal sectors is extremely important in terms of social protection, as there is a strong correlation between informal work and a lack of social security coverage (see figure V.2). In 2009, the percentage of workers who were covered by social security was almost four times higher in medium- and high-productivity sectors than in low-productivity ones, which represents an increase in the gap relative to 1990. This entails a substantial divergence in the current and future well-being of these workers and their families in terms of access to benefits during their working life and especially during retirement. There is also a large wage gap between the two sectors, as discussed below.

Figure V.2  
LATIN AMERICA: WORKERS WITH SOCIAL SECURITY COVERAGE, BY SECTOR (WEIGHTED AVERAGE<sup>a</sup>),  
AROUND 1990, 2002, 2006 AND 2009  
(Percentage of total workers in each sector)



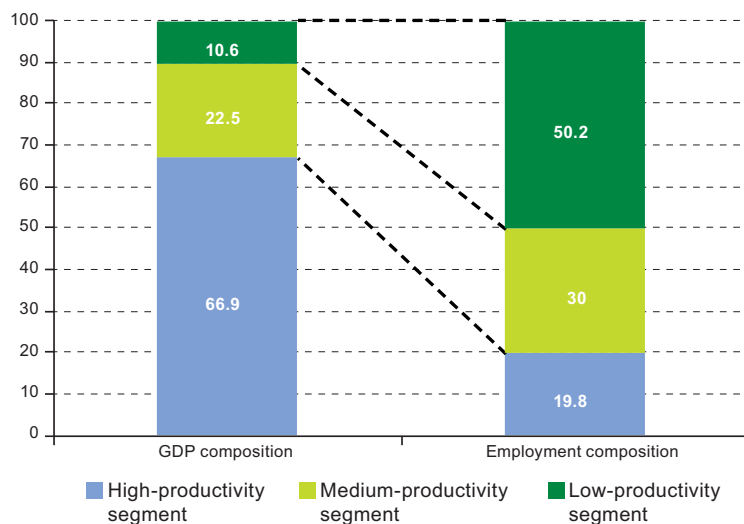
**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

<sup>a</sup> Weighted average of countries that have data available for the period under consideration.

Infante (2011) analyses the employment structure using the definition of structural heterogeneity based on productivity segments (see box V.1). He finds that in Latin America, two thirds (66.9%) of GDP is generated by the high-productivity segment, 22.5% by the medium-productivity segment and just 10.6% by the low-productivity segment. This distribution is reversed for employment: the high segment accounts for just 19.8% of jobs, the medium segment 30% and the low segment 50.2% (see figure V.3). This sharp disparity between the different segments' contribution to GDP and employment translates into a very unequal distribution of the returns on productivity among workers. A high-productivity job contributes 16.3 times more to GDP than a low-productivity job and 4.5 times more than a medium-productivity job. The GDP contribution of a medium-productivity job is 3.7 times greater than that of a low-productivity job (see figure V.4). These figures illustrate how the region "manufactures" inequality: huge productivity gaps, a proportionally inverse distribution of employment and productivity, and sharp wage inequality. There are also skills gaps, since educational attainment is largely conditional on household socioeconomic background. To ensure that skills development is in line

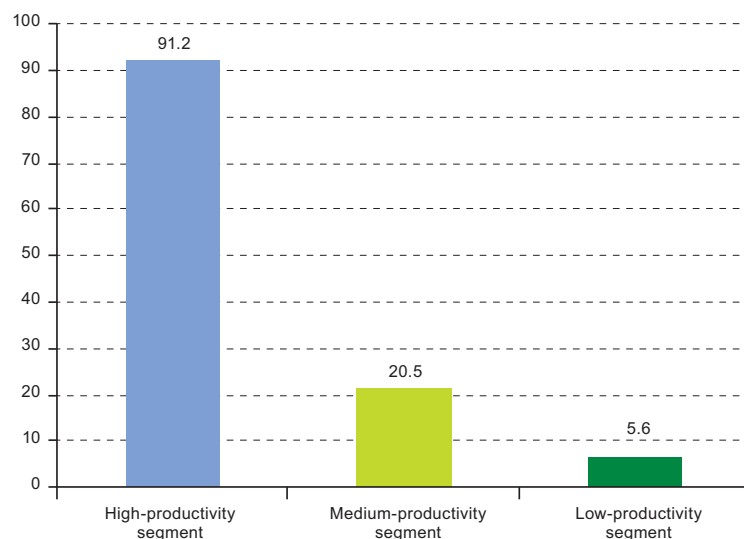
with a shift in employment towards higher-productivity sectors, it is necessary to rethink and redesign education systems, work training programmes and the diffusion of information and communications technologies (ICT), under national projects to support the transition to knowledge-intensive societies and economies.

Figure V.3  
 LATIN AMERICA (18 COUNTRIES): STRUCTURAL HETEROGENEITY INDICATORS, AROUND 2009  
 (Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of R. Infante, “América Latina en el ‘umbral del desarrollo’: Un ejercicio de convergencia productiva”, *Working Paper*, No. 14, Santiago, Chile, June 2011, unpublished.

Figure V.4  
 LATIN AMERICA (18 COUNTRIES): GDP PER WORKER, PPP AROUND 2009  
 (Thousands of dollars)

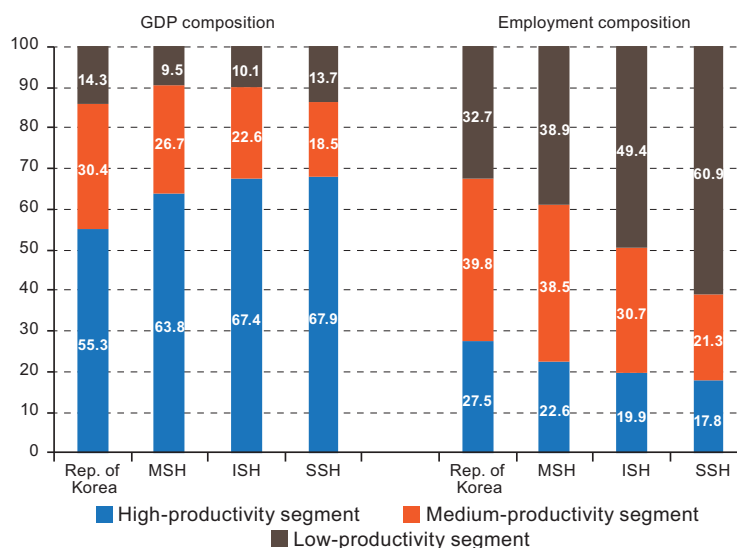


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of R. Infante, “América Latina en el ‘umbral del desarrollo’: Un ejercicio de convergencia productiva”, *Working Paper*, No. 14, Santiago, Chile, June 2011, unpublished.



To explore the structure of employment and GDP in the region, the countries are classified into three groups based on their degree of structural heterogeneity and then compared with the corresponding variables for the Republic of Korea (see figure V.5).<sup>14</sup> The region displays large differences, in which greater heterogeneity correlates with a greater concentration of GDP in the high-productivity segment and employment in the low-productivity segment. In comparison, the Republic of Korea has a greater concentration of employment in the medium-productivity segment (almost 40%) and a lower concentration of GDP in the high-productivity segment, particularly when compared with the Latin American group with severe heterogeneity. This suggests that Korea has a more homogeneous production structure.

Figure V.5  
LATIN AMERICA (COUNTRY GROUPS ACCORDING TO HETEROGENEITY<sup>a</sup>) AND REPUBLIC OF KOREA:  
STRUCTURAL HETEROGENEITY INDICATORS, AROUND 2009  
(Percentages)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of R. Infante, "América Latina en el "umbral del desarrollo". Un ejercicio de convergencia productiva", *Working Paper*, No. 14, Santiago, Chile, 2011, unpublished.

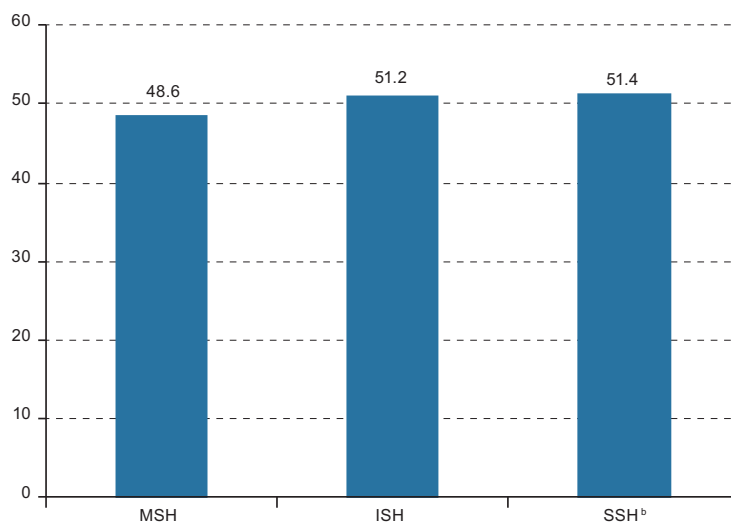
<sup>a</sup> MSH: moderate structural heterogeneity; ISH: intermediate structural heterogeneity; SSH: severe structural heterogeneity.

Latin America and the Republic of Korea diverge widely in terms of the contribution of the lower-productivity segment to GDP and employment. The weight of this segment in Korea's total GDP is only slightly larger than in the countries of the region. However, Korea's low-productivity sector accounts for only a third of the country's employment, whereas in Latin America the share is much larger and increases with the degree of heterogeneity at the country level.

<sup>14</sup> The three groups correlate strongly with the breakdown of the economically active population between the formal sector and the informal sector, with higher formality associated with lower structural heterogeneity. The group of countries with moderate heterogeneity includes Argentina, Chile, Costa Rica and Uruguay. The group with intermediate heterogeneity comprises the Bolivarian Republic of Venezuela, Brazil, Colombia, Mexico and Panama. The countries with a high degree of heterogeneity are the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, Peru and the Plurinational State of Bolivia (see box V.1).

The labour force participation rate of women and the youth unemployment rate do not vary widely among the three groups of countries in the region (see figure V.6).<sup>15</sup> The average participation rate of women in the moderate-heterogeneity group of countries (48.6%) is lower than the average for the intermediate group (51.2%) and the severe group (51.4%). In all of the countries, regardless of the level of structural heterogeneity, women's labour force participation and youth unemployment are sharply stratified (ECLAC, 2010b).

Figure V.6  
LATIN AMERICA (COUNTRY GROUPS BY HETEROGENEITY<sup>a</sup>): GLOBAL LABOUR FORCE PARTICIPATION RATE, WOMEN AGED 15 AND OVER (SIMPLE AVERAGES), AROUND 2009  
(Percentages)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

<sup>a</sup> MSH: moderate structural heterogeneity; ISH: intermediate structural heterogeneity; SSH: severe structural heterogeneity.

<sup>b</sup> The SSH group does not include Nicaragua or Guatemala.

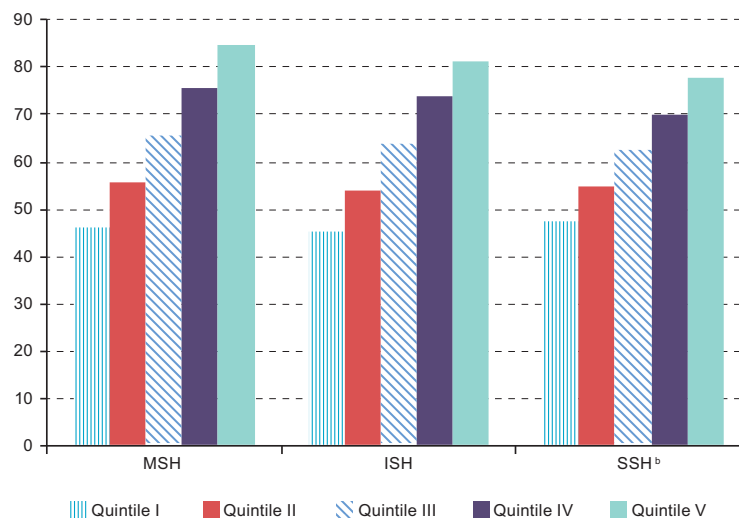
The stratification of female labour-force participation is associated with lower education levels among lower-income women and lesser availability of jobs in these sectors because labour markets have been raising educational requirements. However, numerous studies show that the stratification largely reflects very stratified abilities and possibilities for women to reconcile paid and unpaid work. When resources are scarce, households larger and social and cultural connections weak, then women's options shrink and the possibility of entering the labour market diminishes (ECLAC, 2010b; Montaña, 2010; ECLAC, 2012). The exception occurs in highly precarious segments of informal work where, as mentioned, the job is part of a survival strategy in very low productivity sectors.

This stratification in female labour participation is especially worrisome in countries with a more homogeneous economic structure, which have traditionally had a lower labour-force participation rate. A comparison of these countries with those in the intermediate structural heterogeneity group reveals lower participation rates in all quintiles, but especially in the first quintile (see figure V.7). This point calls for a deeper exploration of the factors that determine

<sup>15</sup> The labour force participation rate is the ratio between the economically active population and the working-age population.

labour force participation, including women's education level, work experience and household characteristics, as well as the production structure and the stratification of job opportunities for women in the poorest sectors.

Figure V.7  
LATIN AMERICA (COUNTRY GROUPS BY HETEROGENEITY<sup>a</sup>): GLOBAL LABOUR FORCE PARTICIPATION RATE, WOMEN AGED 25 TO 54, BY PER CAPITA INCOME QUINTILE (SIMPLE AVERAGES), AROUND 2009  
(Percentages)



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

<sup>a</sup> MSH: moderate structural heterogeneity; ISH: intermediate structural heterogeneity; SSH: severe structural heterogeneity.

<sup>b</sup> The SSH group does not include Nicaragua or Guatemala.

The youth (aged 15 to 24) unemployment rate is highest in countries with moderate heterogeneity, while it is lower and similar in the other two groups (see figure V.8). All three groups, however, post high levels of youth unemployment, at more than double the rate for the economy as a whole. Although unemployment rates usually fall during periods of economic growth, in the first decade of the twenty-first century youth unemployment has done so more slowly than adult unemployment, causing the gap between the different age groups to widen.

Youth unemployment rates decrease from the first income quintile to the last, but all the quintiles reveal vast differences between this age group and average unemployment levels, in all three groups of countries (see figure V.9). High youth unemployment should raise an alarm, as it is a symptom of a society's inability to integrate broad social groups into economic and social life. It also reflects the inability of the labour markets to incorporate the available workforce and, to some extent, the absence of a development concept that sees young people as strategic actors in the development process. Furthermore, the persistence of high youth unemployment rates reinforces the process of education devaluation, in particular for secondary education. Today, the real threshold for accessing acceptable levels of well-being (to live above the poverty level or to earn higher-than-average wages) is post-secondary education in the majority of the countries. The path that children and youth must follow to acquire sufficient tools for economic and social inclusion grows longer and longer, but the effort increases their ability to fully exercise their rights as citizens (ECLAC, 2011).

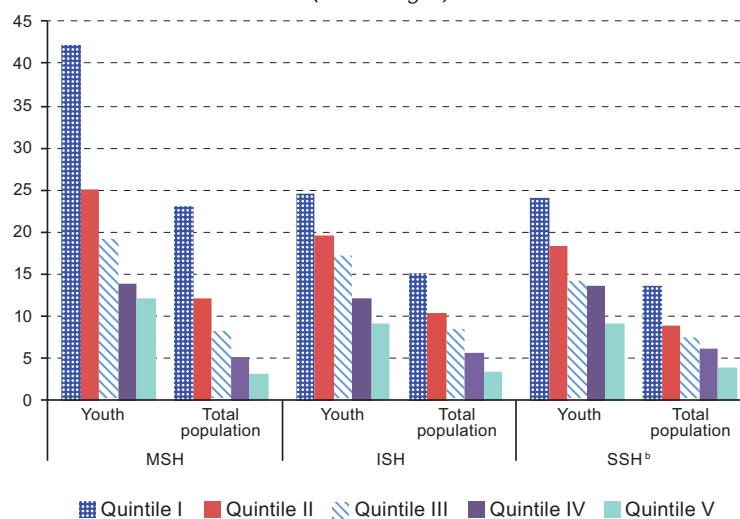
Figure V.8  
**LATIN AMERICA (COUNTRY GROUPS BY HETEROGENEITY<sup>a</sup>): YOUTH (AGED 15 TO 24)  
 AND TOTAL UNEMPLOYMENT RATE (SIMPLE AVERAGES), AROUND 2009**  
*(Percentages)*



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

<sup>a</sup> MSH: moderate structural heterogeneity; ISH: intermediate structural heterogeneity; SSH: severe structural heterogeneity.  
<sup>b</sup> The SSH group does not include Nicaragua or Guatemala.

Figure V.9  
**LATIN AMERICA AND THE CARIBBEAN (COUNTRY GROUPS BY HETEROGENEITY<sup>a</sup>): YOUTH  
 (AGED 15 TO 24) AND TOTAL UNEMPLOYMENT RATE, BY PER CAPITA INCOME QUINTILE**  
*(Percentages)*



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

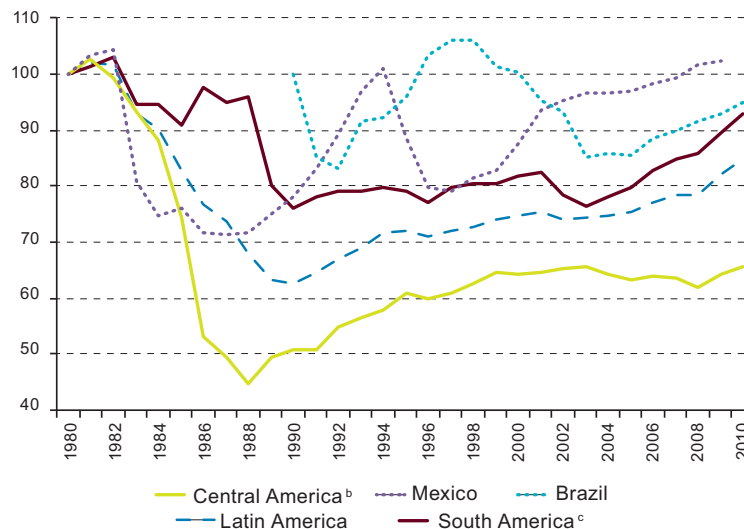
<sup>a</sup> MSH: moderate structural heterogeneity; ISH: intermediate structural heterogeneity; SSH: severe structural heterogeneity.  
<sup>b</sup> The SSH group does not include Nicaragua or Guatemala.

### 3. Labour income and the business cycle

The evolution of real wages in the region has been closely linked to business cycles. Between 1980 and 1990, real wages fell 34% in Latin America (in simple averages), with an even larger drop in Central America (49%). Following this sharp contraction, the trend reversed in 1990-1997, this time with a sharper increase in Central America. Mexico saw strong growth but recorded a substantial drop during the economic crisis that began in 1994. In Brazil, where data are only available from 1990 on, the real wage fell in the first few years of the decade and then began to recover. Between 1998 and 2003, average real wages in the region fell due to the performance of wages in South America, although the real wage increased significantly in Mexico, which was in full economic recovery. The most recent growth period was satisfactory in terms of access to employment and job quality, and real wages evolved favourably for the region overall (see figure V.10 and table V.4).

The growth of real income in the most recent period is explained not only by the economic upsurge, but also by labour policies –minimum wage policy in particular. The minimum wage has recovered in all the subregions in recent years, with the exception of Mexico (see table V.5). South America stands out with an average annual growth rate of almost 6%, while in Central America the rate was 4%. Argentina, Uruguay and some Central American countries, such as Honduras and Nicaragua, had the highest average annual growth rate. In Brazil, the minimum wage grew steadily over the past two decades.

Figure V.10  
EVOLUTION OF REAL WAGES, 1980-2010<sup>a</sup>



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from CEPALSTAT.

<sup>a</sup> Non-weighted averages, where 1980 index = 100, except for Brazil, where 1990 index = 100.

<sup>b</sup> The average for Central America includes Costa Rica, Guatemala, Mexico, Nicaragua and Panama.

<sup>c</sup> The average for South America includes Argentina, the Bolivarian Republic of Venezuela, Chile, Colombia, Paraguay and Peru.

Table V.4  
**REAL WAGES AND ECONOMIC GROWTH, 1980-2010**  
*(Percentages)*

	1981-1990	1991-1997	1998-2002	2003-2010	1980-2010
Change in GDP	14.4	26.2	8.9	35.6	113.2
<b>Change in real wages</b>					
Latin America	-37.5	14.9	3.1	14.3	-15.3
South America <sup>a</sup>	-24.0	5.0	-1.9	18.7	-7.1
Central America	-49.1	19.5	7.2	0.6	-34.4
Mexico	-22.1	1.7	20.2	7.3	2.2
Brazil	n.a.	6.0	-11.9	1.5	n.a.
Average annual rates					
Change in GDP	1.4	3.4	1.7	3.9	2.6
<b>Change in real wages</b>					
Latin America	-6.5	2.0	0.6	1.7	-0.6
South America <sup>a</sup>	-3.8	0.7	-0.4	2.2	-0.2
Central America	-9.2	2.6	1.4	0.1	-1.4
Mexico	-3.5	0.2	3.8	1.0	0.1
Brazil	n.a.	0.8	-2.5	0.2	n.a.

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from CEPALSTAT.

<sup>a</sup> South America includes Brazil.

Table V.5  
**LATIN AMERICA: REAL VARIATION IN THE MINIMUM WAGE**  
*(Percentages)*

	1991-1997	1998-2002	2003-2010	1991-2010
Latin America	-6.8	5.7	38.2	36.1
South America	13.3	7.4	49.7	82.2
Central America	-20.8	4.5	29.0	6.7
Mexico	-29.3	-0.9	-5.5	-33.8
Brazil	25.1	23.8	59.2	146.6
Average annual rates				
Latin America	-1.0	0.8	4.7	4.5
South America	1.8	1.0	5.9	8.9
Central America	-3.3	0.6	3.7	0.9
Mexico	-4.8	-0.1	-0.8	-5.7
Brazil	3.2	3.1	6.9	13.8

**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from CEPALSTAT.

A comparison of growth in the 1990s with the most recent period reveals that only in the recent period was the improvement in employment rates combined with steady, significant wage increases. The next section examines the extent to which these increases were shared by all workers, looking at income distribution inequality from different angles.

## 4. Labour income and inequality

The most common approach for assessing income inequality in the past decades has been to look at the distribution between people or households. This approach is basically grounded in microeconomics, and the available theoretical and methodological tools have led to advances in understanding the determinants. However, economic theory originally took an aggregate approach to income distribution, focusing on how the income generated through economic activity was divided among the participants in the production process (basically, the appropriation of profits by the factors of production). In this classical approach, the wage bill as a percentage of total GDP generated by the economy is a key indicator (Atkinson, 1997).

The complexity of modern production processes, together with the considerable heterogeneity among the groups associated with the different factors of production, explains why the analysis of inequality is centred on personal income distribution. This approach also allows the analyst to take an in-depth look at the distributive role of the State, by studying the effects of taxes and transfers on income using household survey data. Paradoxically, information on the share of the wage bill in GDP, which should be based on the national accounts, is not always available. Beyond the shift toward analysing personal income distribution in the 1970s, it should be borne in mind that personal distribution is closely correlated with functional or factor distribution. Daudey and García Peñalosa (2007) provide empirical evidence that the low share of the wage bill in GDP has a significant negative effect on personal income inequality. These are appealing arguments and further research should be carried out into the relationship between structural heterogeneity and both measures of income distribution, taking into account the dynamics of the generation and appropriation of income from productivity.

This section offers a first attempt to systematize comparable data on the evolution of the wage share of national income in some countries in the region. This analysis requires a wealth of information that, in many countries in the region, is not systematized. Moreover, given the range of methodologies used by the countries to measure the share of wages in national income, cross-comparisons are not always possible or reliable. It is worth noting that the data presented here are from the countries' systems of national accounts. In this accounting system, the income received by independent or self-employed workers, called mixed income, is included under operating surplus. To make progress in this regard, this component of labour income would have to be estimated so that it could be included in the analysis.

In recent decades, the wage share of national income in the countries of Latin America and the Caribbean has reflected the same downward trend seen at the international level, and the trend has held even during economic upswings. The latest available data indicate that the weight of wages in total income fluctuates between 31% and 47% in the region (see table V.6). This share has tended to shrink in the last two decades, with the exception of Chile and Paraguay. In the most recent growth cycle (2003-2009), the share of wages in total income decreased in all countries but Brazil. Weller (2012) shows that according to the empirical analysis presented in ILO/IILS (2011), the opening of the financial account had a negative impact on the wage share of GDP in the countries of Latin America.

The flip side of this drop in the wage share of income is the growing weight of the gross operating surplus, which is a good proxy for corporate savings. This increase does not correspond exactly to a rise in private savings, because the public sector accounts for a significant share of production in countries like the Bolivarian Republic of Venezuela, Chile and Colombia. The

increase in the operating surplus in 2003-2009 is associated with an increase in public savings that, in some cases, allowed for a reduction of debt and the application of countercyclical policies during the financial crisis of 2008-2009. This aggregate approach reveals the absence of improvements in the functional distribution of income and suggests that wage earners were not the group that benefited the most from productivity gains.

Table V.6  
WAGE SHARE OF INCOME, AT FACTOR COST, 1990-2009

	1990	1997	2002	2009	Change			
					1991-1997	1998-2002	2003-2009	1991-2009
Bolivia (Plurinational State of) <sup>a</sup>	39.0	39.7	37.8	31.1	1.9	-4.9	-17.7	-20.3
Brazil <sup>a</sup>	53.5	47.1	46.8	48.3	-11.9	-0.7	3.2	-9.7
Chile	38.7	44.1	46.7	44.5	13.9	5.8	-4.6	15.0
Colombia	41.6	40.7	37.2	36.1	-2.2	-8.6	-3.0	-13.3
Honduras	54.1	50.1	50.8	47.5	-7.3	1.3	-6.4	-12.1
Mexico	32.2	32.7	35.6	31.4	1.6	8.6	-11.8	-2.6
Panama	58.6	39.3	38.6	35.2	-32.9	-2.0	-8.7	-39.9
Paraguay <sup>a</sup>	43.4	57.1	49.2	47.2	31.6	-13.9	-4.0	8.8
Peru	24.9	27.3	27.5	23.3	9.8	0.5	-15.2	-6.4
Venezuela (Bolivarian Republic of)	31.1	37.0	36.1	33.5	18.8	-2.4	-7.3	7.6

Source: Economic Commission for Latin America and the Caribbean (ECLAC).

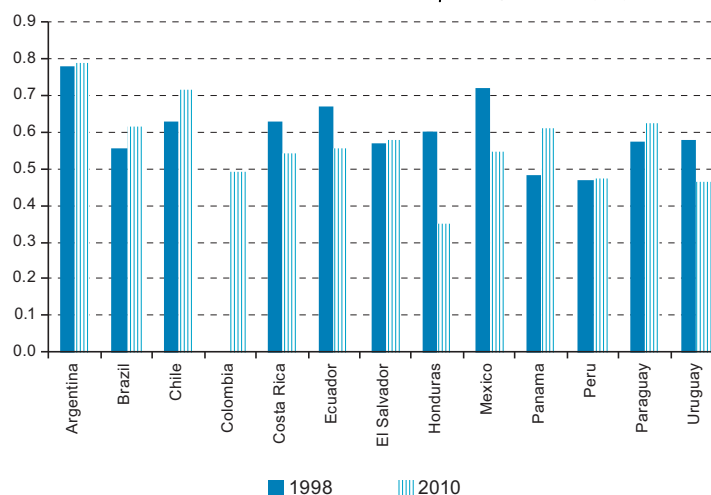
<sup>a</sup> For Brazil, Paraguay and the Plurinational State of Bolivia, the most recent available data are for 2006.

Although comparable data are not available for carrying out a similar analysis for Argentina, some estimates based on national accounts data suggest that the country's performance was in line with —or even better than— Brazil, as the share of wages in national income grew from 35% in 2002 to 43% in 2007 (Peirano, Tavosnanska and Goldstein, 2010). The available estimates for Uruguay indicate that when the wage bill and the labour income of dependent workers are taken together, the share of labour income in GDP was almost 49% in 1997, 39% in 2003 and just under 44% in 2009 (Amarante and Vigorito, 2011). In these countries, the recent reduction in personal income inequality (see below) occurred in conjunction with an improvement in the share of wages in total income.

Another way to analyse income inequality in the labour market is to link it with productivity gaps. Average pay in the informal sector is significantly lower than in the formal sector. A comparison of the averages at the end of the period reveals that informal-sector workers earn between 36% and 80% less than formal-sector workers, depending on the country (see figure V.11). A comparison of the simple averages for 1998 and 2010 does not show a uniform trend among the countries. In some (Argentina, Brazil, Chile, Panama and Paraguay), the ratio between the average earnings of informal- and formal-sector workers grew, indicating a narrowing of the gap. In others (Costa Rica, Ecuador, Honduras, Mexico and Uruguay), it fell, indicating a widening of the gap.



Figure V.11  
RATIO BETWEEN THE AVERAGE LABOUR INCOME OF INFORMAL-SECTOR WORKERS AND THE WAGES  
OF FORMAL-SECTOR WORKERS, 1998 AND 2010



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

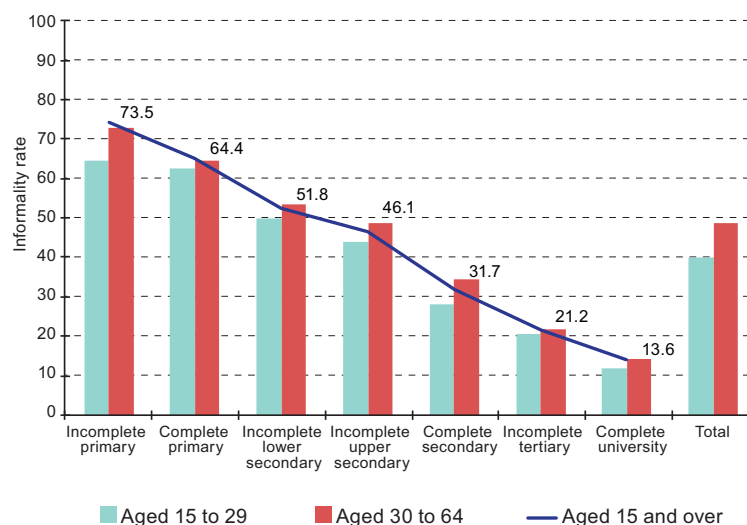
A portion of these gaps is explained by the different characteristics of the workers in the two sectors, in particular education level, age and the economic sector in which they work. As shown in table V.7, informal-sector workers have considerably fewer years of education than formal-sector workers, although this gap has narrowed in most countries in the past decade. Figure V.12 shows that the likelihood of entering the informal- or low-productivity sector decreases as the education level rises (ECLAC, 2011).

Table V.7  
LATIN AMERICA: YEARS OF EDUCATION, FORMAL- AND INFORMAL-SECTOR WORKERS, 1998-2010

	1998			2010			Informal/formal	
	Total	Formal	Informal	Total	Formal	Informal	1998	2010
Argentina	10.5	11.7	8.7	12.0	13.0	10.1	75%	78%
Brazil	6.8	8.1	5.2	8.8	9.7	6.8	64%	70%
Chile	10.9	11.7	9.0	11.3	12.2	9.4	77%	77%
Colombia	--	--	--	8.0	10.7	6.7	--	63%
Costa Rica	7.9	9.3	6.4	9.1	9.8	7.1	69%	73%
Dominican Republic	7.1	8.7	5.7	8.8	11.1	6.9	66%	62%
Ecuador	10.0	11.9	8.1	10.7	12.9	8.7	68%	67%
El Salvador	6.3	8.7	4.4	7.9	10.3	5.9	51%	58%
Honduras	5.4	7.9	4.0	6.3	9.6	4.8	50%	51%
Mexico	7.0	8.8	5.2	9.3	11.1	7.3	59%	66%
Panama	9.6	11.6	7.0	10.3	12.2	7.9	61%	65%
Peru	7.8	10.6	6.2	9.5	12.4	7.7	58%	62%
Paraguay	8.2	10.2	6.9	8.8	11.5	7.1	67%	62%
Uruguay	9.1	10.0	7.7	10.0	11.1	8.2	77%	74%
Venezuela (Bolivarian Republic of)	8.5	10.0	6.8	9.9	11.7	8.1	68%	69%

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

Figure V.12  
LATIN AMERICA (18 COUNTRIES): INFORMALITY RATE AND MONTHLY LABOUR INCOME OF THE WORKING POPULATION BY AGE GROUP AND BY EDUCATION LEVEL, AROUND 2008



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of official figures.

In Argentina, the Dominican Republic and the Plurinational State of Bolivia, an analysis of wage differences between the formal and informal sectors, controlling for worker characteristics in each sector, shows that informal-sector workers earn lower wages than similar workers in the formal sector (Perry and others, 2007). If self-employed workers are included in the analysis, the conclusion holds for Argentina and the Plurinational State of Bolivia, but self-employed informal-sector workers have a wage advantage in the Dominican Republic.

### C. Recent evolution of household income inequality

For the first time in a long time, there has been good news recently with regard to the distribution of income in the region (figure V.13).<sup>16</sup> In the 1990s and through the early 2000s, inequality trended up in the majority of the countries of the region. This trend has turned downward in recent years in a large set of countries, and it does not appear to have been changed by the recent economic crisis.

The increase in household income inequality in the 1990s was determined by the rise in income inequality in the labour market. The wage premium for skilled workers grew substantially in the 1990s; the literature attributes this increase to the greater relative demand for skilled workers, which was only partially offset by an increase in supply (Manacorda, Sánchez-Páramo and Schady, 2010; Gasparini and others, 2011). The reasons behind the relative uptrend in demand for skilled workers are still a matter of debate. As in industrialized countries, the explanations are centred on technological change and its bias toward skilled labour and the impact of trade opening. Also mentioned as a possible factor was the weakening of labour institutions, mainly through minimum wage cuts and declining unionization (Cornia, 2012).

<sup>16</sup> The traditional indicators of income distribution inequality are calculated using household surveys, which are an imperfect source of data on capital income.

Figure V.13  
LATIN AMERICA (18 COUNTRIES): GINI INDEX, 1990-2002, 2002-2008<sup>a</sup> AND 2008-2010<sup>b</sup>



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

<sup>a</sup> Data for 2004-2006 in Argentina; 2001-2008 in Brazil, Paraguay and Peru; 2000-2006 in Chile; 2001-2004 in El Salvador; 2002-2007 in Honduras.

<sup>b</sup> Data for 2006-2010 in Argentina; 2004-2010 in El Salvador; 2007-2010 in Honduras.

<sup>c</sup> Urban areas.

<sup>d</sup> Urban areas only in 1990-2002.

While household income inequality has fallen in recent years in the majority of the countries in the region, it is not easy to weight the causes behind this trend. The causes run from political motivations, stemming from citizens' demands for greater equality, to economic factors, such as non-contributory transfers and the dynamics of the labour market in the recent growth cycle, based on good external conditions and not on structural change (see figure V.14). ECLAC (2011) has repeatedly stressed that what happens in the labour market is the most important factor in the reduction of household income inequality. Studies on the topic attach different levels of importance to two key factors: namely, the increase in the relative supply of skilled workers and the increase in the relative demand for unskilled workers, associated with the expansion of the non-tradable goods sector (see Gasparini and others (2011), and López Calva and Lustig (2011)).

Figure V.14  
CHANGE IN LABOUR INCOME AND TOTAL INCOME INEQUALITY, GINI INDEX, 2002-2010



**Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of household surveys from the respective countries.

In sum, while personal income inequality has fallen, this did not improve functional distribution, which reflects the relationship between the owners of the factors of production, mainly capital and labour. The improvement in personal distribution has been spurred gradually by public policies aimed at closing education and wage gaps and redistributive policies, such as non-contributory transfers, minimum wage hikes and wage bargaining. A pro-equality dynamic linked to structural change as put forward in this document calls for a labour market in which the growing supply of skilled workers is matched by equally dynamic demand. To the extent that their bargaining power is strengthened, this will allow workers to capture a larger share of the profits from productivity (in the form of higher real wages). This process will not unfold spontaneously, but rather will require simultaneous actions on three fronts: industrial policies that promote structural change, macroeconomic policies for growth and jobs and the creation or reinforcement of rights-based social protection systems. These three areas will be discussed in the next chapter.