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Working Paper

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GROWTH, POVERTY AND EMPLOYMENT IN BRAZIL, CHILE AND MEXICO*

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ABSTRACT

Insufficient labour income and limited access to employment are critical problems that policy makers must address when designing development strategies in Latin American countries. The persistence of the high incidence of poverty and inequality can be explained largely by the poor performance of labour markets. This Working Paper uses household survey data for Chile, Brazil and Mexico, from the early 1990s to the early 2000s, to examine the link between the growth of labour income, employment creation and the distributional impact of these factors. Through a simple decomposition of the sources of household labour income into earnings per worker and employment per population, the paper evaluates the role of economic, social and demographic factors in contributing to income changes. This decomposition shows that earnings per worker were the single most important determinant of the change in household labour income per capita. The change in earnings had the largest impact on household labour income in five of the eight country periods considered. Changes in the employment to population rate did play a role in determining labour income, but was much less important. Further decompositions show that despite favourable declines in dependency rates, the unfavourable trends of an almost ubiquitous rise of unemployment rates and, at times, the decline of participation rates dampened the contribution of employment to household labour income. The paper also decomposes labour income per capita into 20 equally sized partitions in order to evaluate its distributional pattern. A simple evaluation rule is used to validate whether changes can be considered pro-poor. Of the eight country periods analysed, only three exhibited income changes favouring the poor: Brazil in 1996-2004, Mexico in 1994-1996 and Mexico in 2000-2004. But in two of these, the pro-poor change occurred during economic contractions. In the remaining five country cases, the increase of labour income was associated with a distributional pattern that did not favour the poor. Thus, there was only one period in which labour income not only increased but was also pro-poor. But even in this case, the distribution did not favour the extremely poor. The alternating pattern of change in favour of and against the poor is explained mostly by the change in their earnings. The pattern of change in employment rarely favoured them. But when it did, usually during economic downturns, the rising participation rate of poor workers was the main reason.

Keywords: Earnings, Employment, Labour Markets, Pro-Poor Growth.

JEL Classification: I30, J21, O12

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1 INTRODUCTION

Citizens of Latin American countries systematically mention lack of employment and insufficient income from labour as being one of their greatest concerns.¹ The ILO (2006a) has pointed out that citizens' broad dissatisfaction with the handling of public matters in the region (as also reported by PNUD 2004) has a clear link with the performance of labour markets. This is worrying because after a decade of recession and deterioration of living conditions, the economic recovery of the 1990s raised the expectation that living conditions would improve rapidly.

Results were, however, disappointing. At best, labour conditions improved slowly. By the first years of the 2000s, many countries in the region continued to suffer from high incidences of poverty, inequality and unemployment. The slow increase in wages of these years could not counter the general sense of dissatisfaction, even less so if there were increasing wage disparities.²

There is growing agreement that the region needs to deal immediately and effectively with high inequality and poverty. There is also a growing understanding that sustained poverty reduction can be achieved only by an economic process that fosters a labour market in which the poor are fully and productively incorporated. This Working Paper looks at the labour-market performance of three important countries in the region: Brazil, Chile and Mexico. It does so by analysing changes in earnings per worker, unemployment, household decisions to participate in economic activities and demographic factors.

The paper seeks to understand how labour markets interact with household economic decisions to determine the income that households derive from their labour. More specifically, it looks at changes in household labour income per capita using a simple decomposition into changes in earnings per worker and employment per person, and further decomposes the change in employment/population into changes in the rate of unemployment, the participation rate and the dependency rate.

The analysis also looks at the distributional dimension of such processes by comparing changes in the various labour income and employment variables at different points of the income distribution. We adopt a pragmatic approach to identifying the poor: we simply define them as those who are in the bottom 20 per cent of the distribution. The analysis is built on household survey data from these three countries and covers periods of time that extend from the early 1990s to the most recent date for which we have access to information.³

Using this methodology, we are able to tell: i) what the origin of changes in household labour income is; ii) how much of the change in labour income is due to changes in earnings and how much is due to changes in the quantity of their work; and iii) whether or not such changes in labour income benefit the poor (i.e., are pro-poor or not).

The remainder of this Working Paper is organised as follows. First, we briefly review the Latin American record on growth, employment and poverty since the 1990s, and discuss the links among these three outcomes. In the next section, we analyse changes in household labour income in Brazil, Chile and Mexico, starting with a presentation of our methodology for doing so. We then attempt to integrate the analysis performed by country into a cross-country comparative evaluation, trying to highlight general findings on the links between growth, employment and poverty. In the last section, we summarise our main findings.

2 POVERTY AND EMPLOYMENT IN LATIN AMERICA

The reduction of poverty and inequality in Latin America has been slow at best. Taking the poverty lines estimated by the World Bank, extreme poverty was 9.7 per cent in 1981 and 9.5 per cent in 2001 while moderate poverty declined from 26.9 to 24.5 per cent. Poverty estimates from ECLAC—based on comparable national poverty lines—yield higher poverty levels, but the trends are similar. In 2004, the incidence of poverty was 42 per cent, which was still above the 35 per cent incidence in 1980 but was down from the 48 per cent in 1990. Extreme poverty increased from 19 per cent in 1981 to 23 per cent in 1990 and then decreased to 17 per cent in 2004 (Berry, 2007 and ECLAC, 2006).

Thus, growth was only slowly trickling down to the poorest end of the distribution. Growth did help to recover some of the income losses for the second poorest quintile of the population, but the living conditions of the poorest 20 per cent of households did not improve significantly.

A factor that might help to explain such trends is the lack of improvement, or deterioration, of employment conditions. A number of studies have tried to identify the factors behind the region's slow growth of productive employment and to determine the kind of employment that could generate a level of income high enough to provide adequate household living conditions and contribute to reducing poverty. Slow economic growth restricts, of course, the possibility of simultaneously creating employment and increasing productivity and wages.

Extensive evidence points towards the negative consequences that overvaluation of the exchange rate (a preferred instrument for price stabilisation in various countries of the region) has had on job creation. Other studies have suggested that labour-saving technologies, which have increased capital intensity, have inhibited job creation in the sectors producing for export markets and import-competing markets. Mining and natural resources (high capital-intensity sectors) have gained increasing shares in domestic and export markets, but have contributed a much smaller share to employment creation. Slow growth, overvaluation of the exchange rate and labour-saving technologies appear to be important factors explaining weak job creation and the low employment elasticity of growth.

Three problems epitomise the poor performance of labour markets in Latin America. First, the persistence of high levels of unemployment in most countries. In 1990, the regional average was 7.1 per cent, and in 2004 it was 10.6 per cent (ILO, 2006b). A second problem has been the expansion of unregulated, low-productivity, low-remunerated jobs, that is, the expansion of informality. Between 1990 and 2003, these activities increased their share of non-agricultural activities from 42.8 per cent to 46.7 per cent. As many as 61 out of every 100 new jobs created in this period occurred in informal activities (Tokman, 2007). The third problem has been that wages have not increased rapidly while wage inequality has intensified. After a decade of wage recovery, the 2003 average industrial wage in Latin America was only slightly above that of 1990, while the wage gap between skilled and unskilled workers had increased significantly.⁴

2.1 BRAZIL, CHILE AND MEXICO

Brazil, Chile and Mexico are three middle-income countries with relatively stable, mature and diversified economies. The analysis of these countries can provide useful illustrations of the potentialities of employment-based development and shed light on the limitations

that the region is facing in improving its employment performance. Understanding the dynamics of labour markets can also be useful to identify policies that can enhance the access of poor workers to jobs.

2.1.1 Brazil

With the largest territory in Latin America, Brazil had a population of around 174 million people and an income per capita of US\$ 7,301 (PPP) in 2000. The average annual rate of change of GDP per capita between 1990 and 2005 was 1.2 per cent, when measured at PPP prices.⁵ Brazil experienced high inflation in the early 1990s, but the introduction of the *Plan Real* in July 1994 stabilised prices, and inflation has remained low thereafter.

Inequality in Brazil is high. Our own estimates suggest that inequality increased between 1992 and 1996 and then decreased slightly between 1996 and 2004; at the end of this 12-year period, inequality was still slightly above the 1992 mark. Based on the Gini coefficient, inequality rose from 0.570 in 1992 to 0.601 in 1996 and then declined to 0.581 in 2004.⁶

The incidence of poverty in Brazil is also high. ECLAC's internationally comparable rates estimate the incidence of moderate and extreme poverty at 35.7 per cent and 13.2 per cent, respectively, in 2001. Our own estimates suggest that poverty decreased continuously over more than a decade. Based on poverty lines of 130 reais (urban) and 65 reais (rural), at 2004 prices, the head count ratio decreased from 41 per cent in 1992 to 33 per cent in 1996 and to 31 per cent in 2004. When using other poverty lines and alternative poverty indices, we obtain similar results: a continuous reduction in the incidence as well as the depth and severity of poverty. Both economic growth and decreasing inequality explain the reduction of poverty.

A few summary statistics suffice to give a sense of the status of employment and its evolution since 1990. While the rate of unemployment has increased, the size of the informal sector has remained practically constant at around 50 per cent of the workforce since the early 1990s.⁷ Employment in agriculture has been decreasing, with most of the labour shifting to services, with no net gain for manufacturing. Income from labour grew slowly: the earnings of workers increased annually at only one per cent.

2.1.2 Chile

Chile is a relatively small country with 15 million people and an income per capita of US\$ 9,121 (PPP) in 2000. Chile has the strongest growth record in the region, with an annual growth rate of GDP per capita averaging 4.5 per cent since 1990. At the beginning of the 1990s, Chile was the country with the lowest GDP per capita of the three countries considered here, but by 2004 it had the highest GDP per capita and, for that matter, for all of Latin America. Its income inequality is high, but lower than Brazil's.⁸ From the mid 1990s to the mid 2000s, estimates from household surveys do not show much variation in inequality. Our estimates of the Gini coefficient give values of 0.563, 0.574 and 0.562 in 1996, 2000 and 2003, respectively.

High and constant inequality together with rapid growth translated into slow poverty reduction. Our poverty estimates, using relatively high poverty lines of 43,712 pesos (urban) and 29,473 pesos (rural) at 2003 prices suggest an increase in the incidence of poverty from 26 per cent in 1996 to 30 per cent in 2000 and then a reduction to 24 per cent in 2003. Lower poverty lines yield, of course, a lower incidence of poverty but show similar trends. The incidence of what we can call extreme poverty was eight per cent in 1996, seven per cent in 2000 and six per cent in 2003.

Chile's employment record is far from impressive. The rate of unemployment worsened during the second half of the 1990s and remained constant thereafter. The composition of employment, as in Brazil and Mexico, moved away from agriculture to cluster in services. Our estimates of informality in Chile give a stable figure of somewhat less than 40 per cent. Labour earnings for workers increased slowly, by less than one per cent a year.

2.1.3 Mexico

In 2000, Mexico had a population of 98 million. Income per capita reached a high mark, for Latin American standards, of US\$ 9,048 (PPP) in 2000. The country's growth record, however, has not been impressive. The annual rate of change of GDP per capita recorded the low average of 1.2 per cent between 1990 and 2005, but such an average concealed large variations, including a large contraction of a negative eight per cent in 1996 and a high rate of five per cent in 1998. Strict price stability and a small central-government budget deficit have not been sufficient to generate greater or more stable private investments. Public investment has also been small (averaging four per cent of GDP during 1990-2004) and has been unstable since the 1990s.

Similar to levels in other Latin American countries, inequality in Mexico has been relatively high. Our own calculations give Gini coefficients of 0.550 in 1992 and 0.511 in 2004, suggesting a decrease in inequality.⁹ Similar to trends in economic growth, changes in inequality have also been erratic. Inequality decreased substantially in 1996—a result of the economic crisis that started the previous year. But it increased between 1996 and 2000, and then decreased again by 2004. These estimated changes are robust to the use of various inequality measures.

According to national poverty lines, poverty is high but declining.¹⁰ Although economic growth was slow, a drop in inequality helped the incidence of poverty decrease from 27 per cent in 1992 to 16 per cent in 2004 (based on our own estimates using Mexico's lowest official poverty line). Estimates of poverty reduction are robust to the use of different poverty measures and various poverty lines.

The rate of unemployment increased during the 1995 crisis but remained very low in all other periods. The composition of employment, as in Brazil and Chile, moved away from agriculture to cluster in services. Employment in manufacturing and other industrial activities showed two distinct trends: it decreased sharply between 1992 and 1994 and increased from 1994 to 2000. Our estimate of informality in Mexico provides an average of around 50 percent, with an increasing trend over the 1990s. In 2004, informality rose to close to 60 per cent of the labour force. The incomes of Mexican workers fared worse than those in Brazil and Chile; earnings per worker decreased at a rate of -0.5 per cent between 1992 and 2004.

In summary, these three countries represent cases of middle-income countries with fairly consolidated economies that faced diverse economic experiences during the 1990s and early 2000s. Over the period under review, growth of GDP per capita in Chile was relatively fast but moderate in Brazil and Mexico. A distinctive feature of Mexico's performance was large fluctuations in economic activity. In Brazil there was rapid growth between 1993 and 1997, and a more unstable performance thereafter, with zero growth in 1998 and low rates of one per cent in 1999, 2001 and 2003. Overall, Chile had the most stable GDP growth. Nevertheless, the economy followed a decelerating trend up to 1999, but had a rising trend afterwards.

3 THE LINK BETWEEN POVERTY AND EMPLOYMENT

Several studies have made the fundamental point that sustained poverty reduction can be achieved only by a process that creates productive employment.¹¹ It is not the case, however, that employment creation in any form leads to a rapid and sustained reduction of poverty. The character of job creation and productivity enhancement needs to give the poor access to economic opportunities.

Based on the work of Khan (2001) and Osmani (2006) on employment and poverty, we can think of a chain containing five key links. First, the economy needs to grow—Osmani calls this the growth factor. Second, growth needs to create jobs, i.e., the employment elasticity of growth needs to be relatively high. This means, in Khan's terms, an elasticity that is not so low as to exacerbate the scarcity of job opportunities nor so high as to militate against increases in productivity. From the experience of Asian countries, Khan suggests an elasticity of around 0.7 as being desirable.

Third, while the quality of jobs created is important, efforts cannot be centred on good-quality jobs, i.e., formal, full-time, well-paid wage jobs. Activities in the informal sector that create wage employment and increase opportunities for people to employ themselves must also be considered. Fourth, for growth to benefit the poor, the wages of poor employees as well as the incomes of the poor self-employed need to increase based on productivity enhancements. Fifth, poor workers need to be able to benefit from the creation of new wage jobs and widening opportunities for more rewarding self-employment activities. Keeping these linkages in mind, while analysing labour income and employment in Brazil, Chile and Mexico, can help us to understand the factors that have determined changes at the household level and their distributional pattern.

4 DECOMPOSING CHANGES IN LABOUR INCOME

We adopt Glewwe's (1986) decomposition of earnings per household member and extend it to examine the employment patterns of households. Instead of taking the variance as a basis to gauge inequality, we use the decomposition of earnings to look at mean changes for different percentiles of the income distribution. More specifically, we first decompose labour income per capita to express it as the product of earnings per employed worker *times* the number of employed workers over the total population, as follows:

$$Y_i / N_i = (Y_i / L_i) * (L_i / N_i) \quad (1)$$

where $L_i = \sum_{i=1}^n L_i$ is the sum of workers in a household or population group.

The change in labour income per capita from period 1 to period 2 can then be expressed as the change in earnings per worker (Y_i / L_i) in household i and the change in the employment to population rate (L_i / N_i) in the same household (a proxy for access to jobs). Taking logs on these changes:

$$\Delta \log(Y_i / N_i) = \Delta \log(Y_i / L_i) + \Delta \log(L_i / N_i) \quad (2)$$

The change in the employment to population rate can be further decomposed into changes in unemployment, participation and dependency.¹² In other words, changes in this rate can be decomposed into changes in the **employment rate** (the number of workers over the total number of economically active household members, a proxy for the inverse of the unemployment rate), changes in the **participation rate** (the number of the economically active members over the working-age members), and changes in the **'availability rate'** (the number of working-age members over the total number of household members, a proxy for the dependency rate).

Each one of these terms is the result of different social processes and individual decisions within the household. The employment rate provides information on the ability of those willing to work to actually find a job. The participation rate informs us about household members' decisions to actively engage in the labour market. Finally, the availability or 'inverse dependency rate' provides information about changes in the age composition of households and the potential of households to support themselves, based on the number of dependants per working member.

The second term on the right-hand side of Equation (2) can, accordingly, be decomposed into changes in the employment rate, the participation rate and the availability rate. Taking logs, we arrive at:

$$\Delta \log (L_i / N_i) = \Delta \log (L_i / E_i) + \Delta \log (E_i / A_i) + \Delta \log (A_i / N_i) \quad (3)$$

where: E_i is the economically active population, defined as those between 15 and 64 years of age who work or are openly unemployed; A_i is the working-age population, defined as those between the ages of 15 and 64 years old; L_i / E_i is the employment rate; E_i / A_i the participation rate; and A_i / N_i the availability rate.

5 EARNINGS AND EMPLOYMENT

We use household surveys to capture total monetary income from labour. We add income from first and second jobs to estimate: i) household labour income per capita, and ii) household labour income, i.e., earnings, per worker. Dividing the total number of working household members by the total number of household members, we obtain the employment to population rate. When we divide the number of employed members by the number of economically active household members, we obtain the employment rate. Furthermore, we divide the economically active household members by the total number of working-age household members (defined as 15 to 64 years old) to obtain the participation rate. When we divide the work-age population by the total number of household members, we derive the availability rate.

We take logs of these variables and apply decompositions as defined in Equations 1 to 4. Results for mean annualised changes are presented in Tables 1-4. Estimates by cumulative percentiles of the distribution, namely, by 20 partitions, are presented in Figures 1 to 8.

5.1 BRAZIL

5.1.1 1992-1996

Between 1992 and 1996, labour income grew fast in Brazil at 6.9 per cent per year (Table 1).¹³ The pattern of growth during these years, however, was not pro-poor: the increase in labour

income per capita at the low end of the distribution was consistently below the mean rate. That is, regardless of how high or low the poverty line would have been set, within reasonable boundaries, the change in labour income per capita was not pro-poor (Figure 1: see solid line). To learn about the mechanics that led to such a fast growth rate that did not favour the poor more than proportionally, we decompose the change in labour income into the change in earnings (labour income per worker) and the change in the proportion of household members actually working, i.e., the employment to population rate (see Equation 2 above).

TABLE 1

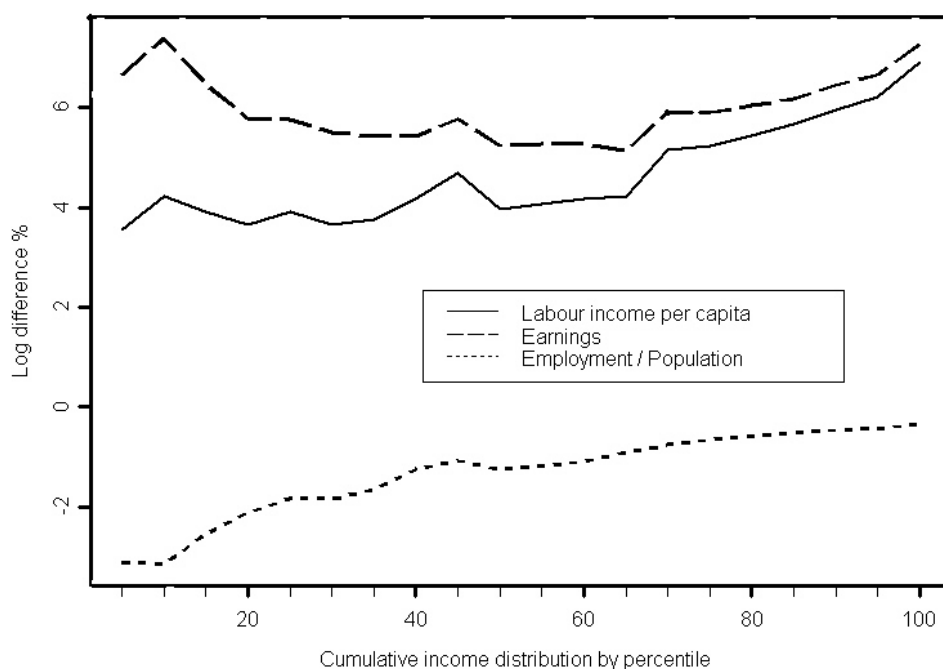
Decomposing household mean labour income per capita: Brazil 1992-2004
(log differences expressed as annual percentages)

	1992-1996		1996-2004	
	Mean	Poor	Mean	Poor
Labour income per capita	6.9	3.7	-1.6	0.9
Earnings per worker	7.3	5.8	-2.4	1.0
Employment to population rate	-0.4	-2.1	0.7	-0.1
Employment to active population rate	-0.1	-0.5	-0.3	-0.7
Participation rate	-1.0	-2.5	0.3	-0.2
Availability rate	0.8	0.9	0.6	0.8

Source: Own estimates based on household surveys.

FIGURE 1

Income, Earnings and Employment: Brazil 1992-1996



Note: The y-axis indicates the log change in the three variables (labour income per capita, earnings per worker and the employment/population rate); the x-axis is ordered from left to right according to household labour income per capita for each one-twentieth (five per cent) of the distribution, from poorest to richest. However, quintiles (e.g., 20 per cent, 40 per cent) are highlighted on the x-axis. At the extreme left of the figure is the log change for the poorest five per cent of the population while at the extreme right (100 per cent) is the mean log change for the whole population.

The increase in labour income per capita during this period came overwhelmingly from earnings per worker, which grew by 7.3 per cent. In contrast, the contribution of employment (as a ratio to total population) actually pulled labour income down by -0.4 per cent. This negative contribution resulted (using Equation (3)) from the combined effect of a slight fall in the employment rate along with a more significant fall in the participation rate.¹⁴ Of the three components that make up the employment to population rate, only the availability rate, which follows a demographic logic, contributed positively to the increase in labour income per capita.

The lack of a pro-poor pattern to changes in labour income during these years is explained by the fact that neither the change in earnings per worker nor the change in employment gave preference to the poor (Table 1). Earnings of the poor did increase at a significant rate of 5.8 per cent per year, but fell short of the mean rate by 1.5 percentage points. While the mean drop in employment per person was -0.4 per cent, the poor's rate fell by -2.1 per cent. In fact, the employment rate did not change in a way favourable to the poor regardless of the poverty line chosen (note the rising trend by percentile in Figure 1).

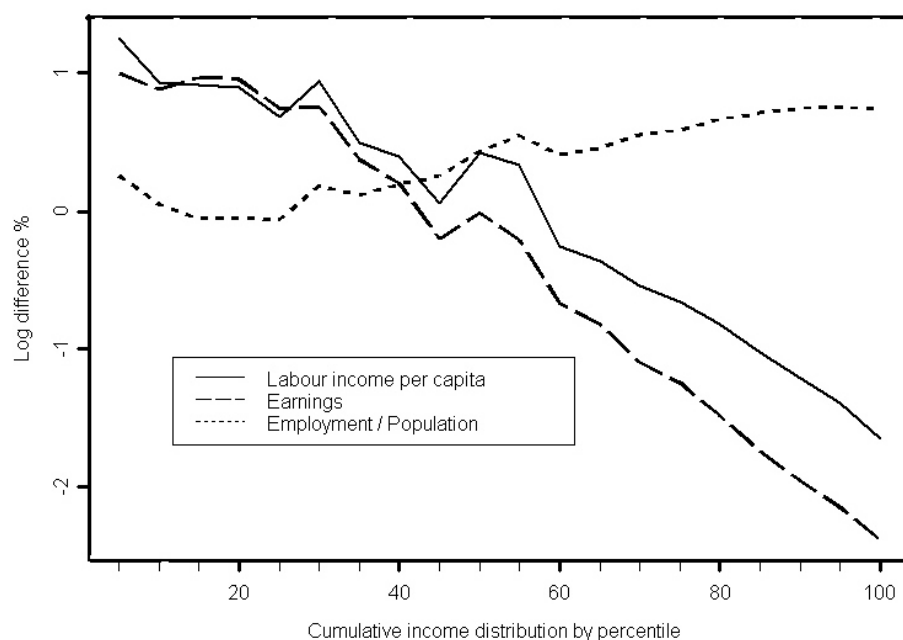
The employment/population disadvantage of poor households originated in the sharp reduction of their participation rates, which, by itself, would have implied a -2.5 per cent fall in employment to population. On top of this, the poor were affected slightly by the overall rise of unemployment (Table 1). In contrast, their availability rates rose marginally higher than those of the non-poor. Thus, the relative disadvantage of the poor during this period originated from their inability to benefit from increasing labour earnings and from their failure to participate in economic activities and gain access to scarce jobs.

5.1.2 1996-2004

In 1996-2004, per capita labour income decreased by -1.6 per cent. This reduction originated from a large percentage fall in earnings per worker (-2.4 per cent), a reduction that was only partially offset by a moderate increase in the employment to population rate (0.7 per cent). This rise of the employment to population rate resulted from an advantageous change in the age structure and participation rates of households, which was only partially offset by rising unemployment.

During these years, the poor fared relatively better, managing to increase their labour income per capita by 0.9 per cent per year. This better performance originated in the improved capacity of the working poor to enhance their earnings (by one per cent per year), which more than compensated for their failure to gain access to a slightly enlarged pool of jobs. While the mean employment to population rate increased by 0.7 per cent, that of the poor decreased slightly by -0.1 per cent. Falling employment for the poor resulted from an increase in unemployment and a fall in participation rates. Thus, poor workers' ability to increase labour income during this difficult period originated completely from the way that earnings changed, suggesting that the working poor succeeded perhaps in increasing their productivity or obtained better prices for their labour outputs while they were losing access to jobs.

FIGURE 2

Income, Earnings and Employment: Brazil 1996-2004

Note: See note to Figure 1.

5.2 CHILE

For Chile, we analyse changes in poverty and employment from 1996 to 2003. In an attempt to capture the turn-around in the growth trend, we subdivide these years into two periods, the first one from 1996 to 2000 and the second from 2000 to 2003.¹⁵ At first glance these two periods do not differ much. Not only was annual growth in labour income per capita similar, 1.1 and 1.3 per cent, respectively, but also in both periods growth was not pro-poor (Table 2). Apparent similarities, however, hide significant differences, which we now explore.

5.2.1 1996-2000

The 1.1 per cent increase in labour income per capita during 1996-2000 originated from a relatively strong increase in workers' earnings (1.6 per cent). The employment to population rate actually fell during this period (-0.5 per cent). Falling employment rates resulted from rising unemployment (up 1.2 per cent). Had there not been an increase in the availability rate and a rise in the participation rate, the fall in employment would have been worse.

TABLE 2

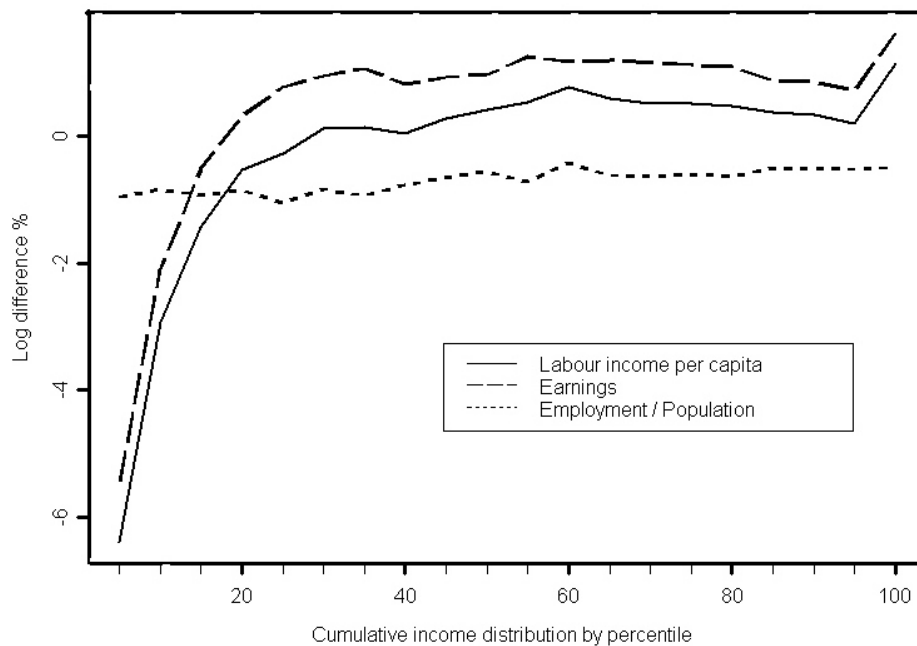
Decomposing household mean labour income per capita: Chile 1996-2003

(log differences expressed as annual percentages)

	1996-2000		2000-2003	
	Mean	Poor	Mean	Poor
Labour income per capita	1.1	-0.5	1.3	-0.5
Earnings per worker	1.6	0.3	-0.5	0.0
Employment to population rate	-0.5	-0.8	1.8	-0.5
Employment to active population rate	-1.2	-3.5	0.2	-0.1
Participation rate	0.5	1.6	0.8	-0.9
Availability rate	0.2	1.1	0.8	0.5

Source: Own estimates based on household surveys.

FIGURE 3

Income, Earnings and Employment: Chile 1996-2000

Note: See note to Figure 1.

The increase in earnings of this period did not benefit the poor more than proportionately. Figure 3 makes apparent that the mean change in labour income was significantly negative and progressively so among poorer workers. The figure also makes clear that the worsening of income inequality was due mainly to the way that earnings per worker behaved, for although the change in employment was also unfavourable for the poor, the difference from the mean change was much smaller. The differences between the change in labour income per capita and the change in earnings per worker when all households are compared to poor households were -1.6 percentage points and -1.3 percentage points per year, respectively; in contrast, the difference in the rate of change of employment was only -0.3 percentage points.

In addition to falling earnings, the poor also faced a rapid increase in unemployment, at the pace of 3.5 per cent per year. In fact, had there not been a strong increase in the poor's participation rates and a solid improvement in their availability rates, the employment/population disadvantage of the poor would have been worse.

5.2.2 2000-2003

The 1.3 per cent increase in labour income of the second period in Chile, 2000-2003, though similar to that of the first period, resulted from a different combination of changes. This time, earnings per worker decreased, at an annual rate of -0.5 per cent, while the employment to population rate actually increased, by 1.8 per cent. The major difference in the employment performance of this period relative to the previous one was the change in the unemployment rate, which actually fell (note: the 0.2 increase in the employment to economically active population rate in the table corresponds to a -0.2 per cent fall in unemployment).

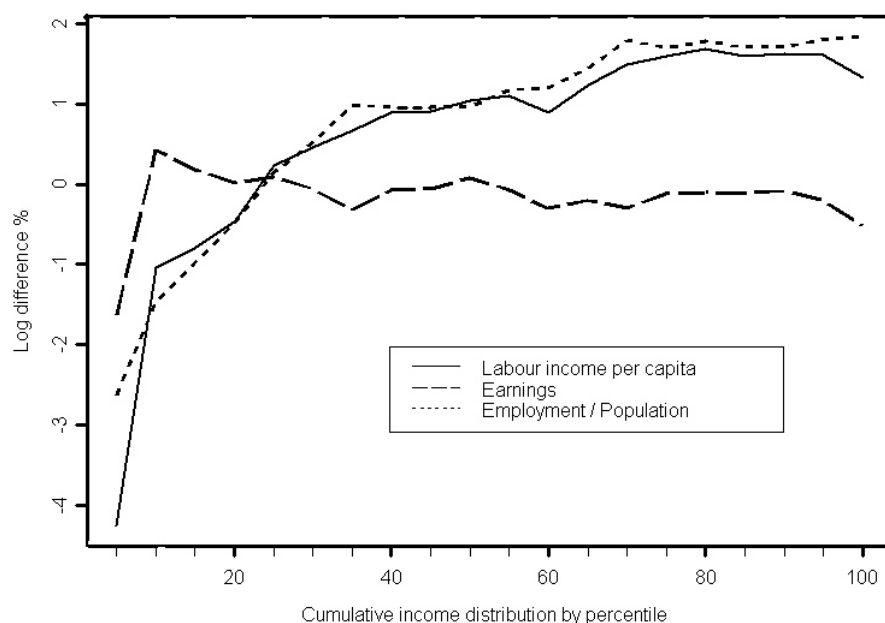
It is beyond the scope of this Working Paper to investigate why similar rates of change in labour income can be associated with very different sets of interactions between earnings and employment. We simply present the preliminary hypothesis that the change in labour income of 1996-2000, which roughly coincided with the successive deceleration of growth of 1995-1999 (though it included the acceleration of 2000), might be the result of the adjustment of economic agents to worsening economic conditions through employment rather than earnings. In contrast, during 2000-2003, which were the years of mildly rising growth rates, earnings adjusted downwards while employment became the engine of recovery.

As in the previous four-year period, changes in labour income between 2000 and 2003 did not favour the poor. In contrast with what was happening in the whole labour force, the poor faced a fall in their labour income per capita (explained by a -0.5 per cent fall in their employment to population rate). While mean labour income increased by 1.3 per cent, that of the poor decreased by -0.5 per cent, a -1.8 percentage points difference. While mean employment increased by 1.8 per cent, that of the poor decreased by -0.5 per cent, a -2.3 percentage point difference. The only 'positive' outcome was that the poor's earnings remained constant.

Figure 4 offers a darker picture of trends affecting the poor than that just depicted. The solid line in Figure 4 makes apparent that the change in labour income per capita was not pro-poor, no matter which poverty line would be chosen. It also makes apparent that the distributional pattern of the change in labour income was closely influenced by the employment rate, whose change was not pro-poor regardless of the poverty line chosen. Finally, it also shows that the change in earnings was decidedly adverse for the extremely poor, i.e., the five per cent poorest.

Why were the poor, unlike other population groups, unable to increase their employment to population rate? None of the employment variables changed in a way favourable to the poor: in sharp contrast with the rest of the population, the poor experienced a slightly rising unemployment rate, a markedly falling participation rate and a less favourable increase in their availability rate (Table 2).¹⁶

FIGURE 4

Income, Earnings and Employment: Chile 2000-2003

Note: See note to Figure 1.

It should be noted, looking at the entire period 1996-2003 in Chile, that while the change in earnings favoured the poor in 2000-2003, the employment to population rate consistently ran counter to the poor, most notably due to continuously rising unemployment rates.

5.3 MEXICO

Given the high instability experienced by Mexico during the years that we are covering, we break down our analysis into four periods. First, to isolate the impact of the 1995 crisis, we divide the early to mid 1990s into two periods: 1992-1994 and 1994-1996. Second, since the year 2000 was the end of the fast economic recovery that took place after the 1995 crisis, we divide the post-crisis period in two: 1996-2000 and 2000-2004. We thus have two episodes of moderate growth of household labour income (1992-1994 and 2000-2004), one of rapid growth (1996-2000), and one of sharp reductions (1992-1994). The pattern of change in labour income per capita alternates between being pro-poor and not pro-poor across these periods. We now discuss each of them in turn.

5.3.1 1992-1994

Between 1992 and 1994, mean labour income per capita grew by 2.8 per cent (Table 3). This increase originated entirely from the expansion of employment relative to population. This increase in the employment to population rate originated, in turn, from a higher participation rate as well as from a moderately higher availability rate. Changes in labour income did not favour the poor: the per capita labour income of the poorest 20 per cent of the population decreased by -1.2 per cent. Moreover, the change in earnings per worker for the poor was highly inequalitarian.

Figure 5 shows that the rate of change of earnings per worker diminished rapidly towards the bottom of the distribution. While the change in earnings at the mean was -0.1 per cent, the mean change for the poorest 20 per cent was -5.7 per cent (Table 3), with an even sharper drop, i.e., -7 per cent, for the 10 per cent poorest and a -14 per cent drop for the five per cent poorest.

The same figure also shows that the change in employment was favourable to the poor, as its rate of change was higher, the lower the point in the distribution. So this factor softened the hardships that the adverse change in earnings imposed upon poor workers.

TABLE 3

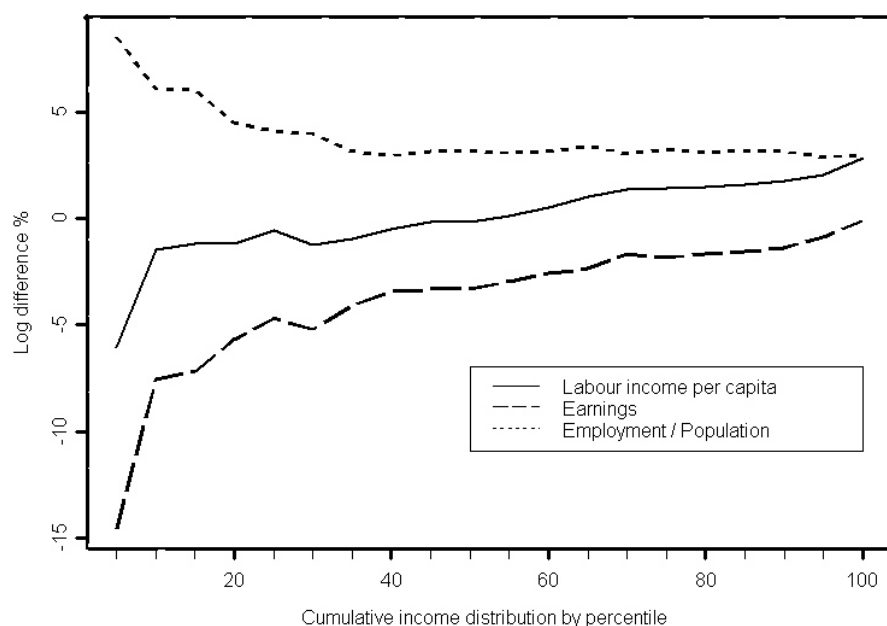
Decomposing household mean labour income per capita: Mexico 1992-1996

(log differences expressed as annual percentages)

	1992-1994		1994-1996	
	Mean	Poor	Mean	Poor
Labour income per capita	2.8	-1.2	-15.0	-7.2
Earnings per worker	-0.1	-5.7	-16.9	-11.0
Employment to population rate	2.9	4.5	1.9	3.8
Employment to active population rate	-0.1	-0.7	-0.3	-0.3
Participation rate	2.4	3.3	1.5	5.0
Availability rate	0.6	1.8	0.7	-0.9

Source: Own estimates based on household surveys.

FIGURE 5

Income, Earnings and Employment: Mexico 1992-1994

Note: See note to Figure 1.

Decomposing the 2.9 per cent change in the mean employment/population rate reveals a sharp increase in the participation rate of 2.4 per cent. Not all these new labour-market participants found a job, however, for the unemployment rate increased slightly, by 0.1 per cent.

Faced with a pronounced reduction in earnings (i.e., -5.7 per cent), poor workers reacted with a much higher participation rate (3.3 per cent) and benefited from a higher availability rate, but they faced a distinct rise in unemployment (the employment to active population rate decreased by -0.7 per cent).¹⁷

5.3.2 1994-1996

During the years of sharp economic contraction, 1994-1996, there was a reduction in labour income at the mean (i.e., -15 per cent). This was explained basically by a plummeting of earnings of -16.9 per cent (Table 3). As one might expect from the magnitude of the income fall, participation rates increased. A markedly rising participation rate and a positive change in the availability rate overshadowed the rise in unemployment, and resulted in the paradoxical increase of the employment to population rate of 1.9 per cent per year during the worst crisis of the country in modern times.

The contraction in labour income per capita was less dramatic among the poor. While the reduction in earnings per worker was less drastic for the poor, the increase in their employment to population rate was stronger. Figure 6 shows that the falls in labour income per capita and earnings per worker were smaller, the poorer the household: the labour income per capita of the poorest quintile decreased by 'only' -7.2 per cent compared to -15.0 at the mean (Table 3).

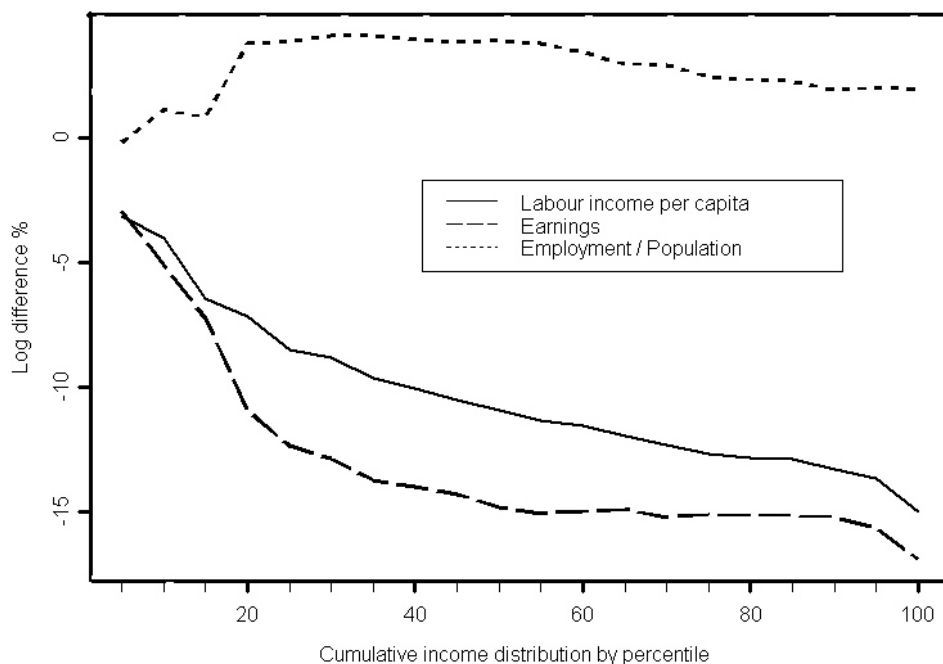
Figure 6 shows that the increase in the employment to population rate is higher, the poorer the household: while the mean change was 1.9 per cent, for the poorest 20 per cent it

was 3.8 per cent. But the figure also makes apparent that the extremely poor did not benefit as much from the increase in employment; for instance, the employment to population rate of the 10 and 15 per cent poorest increased by only about one per cent, while that of the poorest five per cent actually decreased.

As expected, during a crisis as deep as Mexico's in 1995, workers with higher earnings and higher wages endured the largest cuts. There was not much room available to significantly cut the earnings at the bottom of the distribution, particularly after the sharp reductions of the previous two years. But no matter how large or small the proportional reduction was, the absolute level of earnings sunk very low, probably prompting the sharp increase in participation rates, i.e., 5.0 per cent, among poor households.

Since the increase in unemployment was similar for all income groups, one should conclude that poor workers who were newly entering the the labour market managed to find some kind of informal work activity.¹⁸ Thus, the pro-poor pattern of the period arose from two types of responses. First, the earnings of the poor did not decrease as much as the average, principally because their low earnings could not get much lower. Second, poor families exerted a more intense effort to sustain incomes by increasing their participation in labour markets.

FIGURE 6

Income, Earnings and Employment: Mexico 1994-1996.

Note: See note to Figure 1.

5.3.3 1996-2000

Mexico recovered fast from the 1995 crisis. Attesting to that was the growth of labour income per capita at an annual rate of 6.1 per cent between 1996 and 2000, as earnings per worker increased by 5.0 per cent and the employment rate rose by 1.1 per cent (Table 4). At the mean, unemployment rates decreased as did participation rates.

TABLE 4

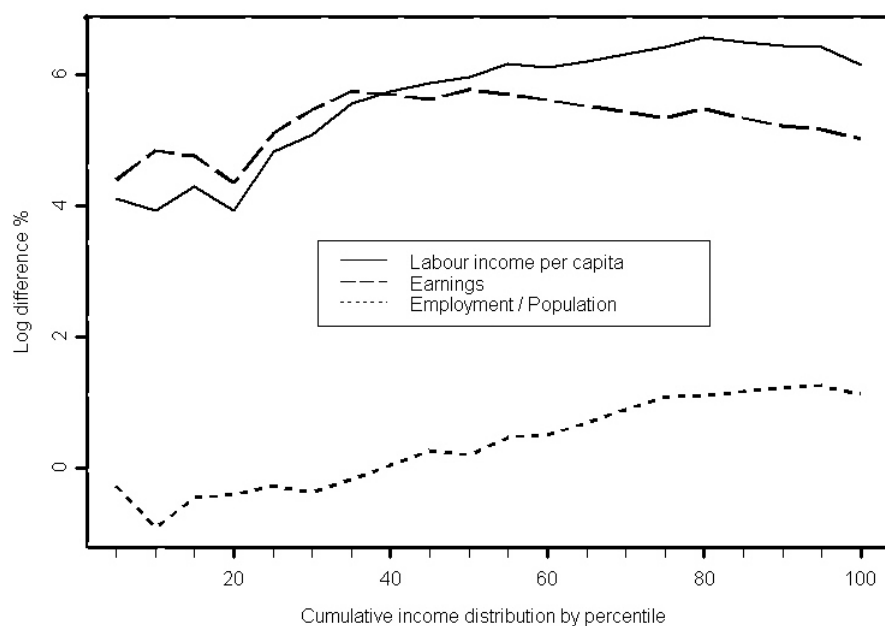
Decomposing household mean labour income per capita: Mexico 1996-2004

(log differences expressed as annual percentages)

	1996-2000		2000-2004	
	Mean	Poor	Mean	Poor
Labour income per capita	6.1	-0.7	1.4	10.4
Earnings per worker	5.0	-0.2	0.7	10.1
Employment to population rate	1.1	-0.5	0.7	0.3
Employment to active population rate	0.6	0.6	-0.4	-0.7
Participation rate	-0.2	-2.4	0.6	-0.5
Availability rate	0.8	1.2	0.5	1.5

Source: Own estimates based on household surveys.

FIGURE 7

Income, Earnings and Employment: Mexico 1996-2000

Note: See note to Figure 1.

However, the pattern of change was not pro-poor. Figure 7 shows that the change in labour income per capita was distinctively low for the poorest 20 per cent. This was due to progressively more unfavourable patterns of change in earnings and employment, which began among the poorest 40 per cent. Since the unemployment rate improved homogeneously across the distribution, the differential access to jobs of the poor vis-à-vis the non-poor is explained mostly by changes in participation rates. While the mean participation rate remained practically constant (-0.2 per cent), the participation rate of poor household members significantly decreased (-2.4 per cent).

This raises the question of why the poor's participation rates fell during a period of rapid growth. One possible explanation is that poor household members might have returned to non-market activities. Once the emergency situation of previous years was over, women

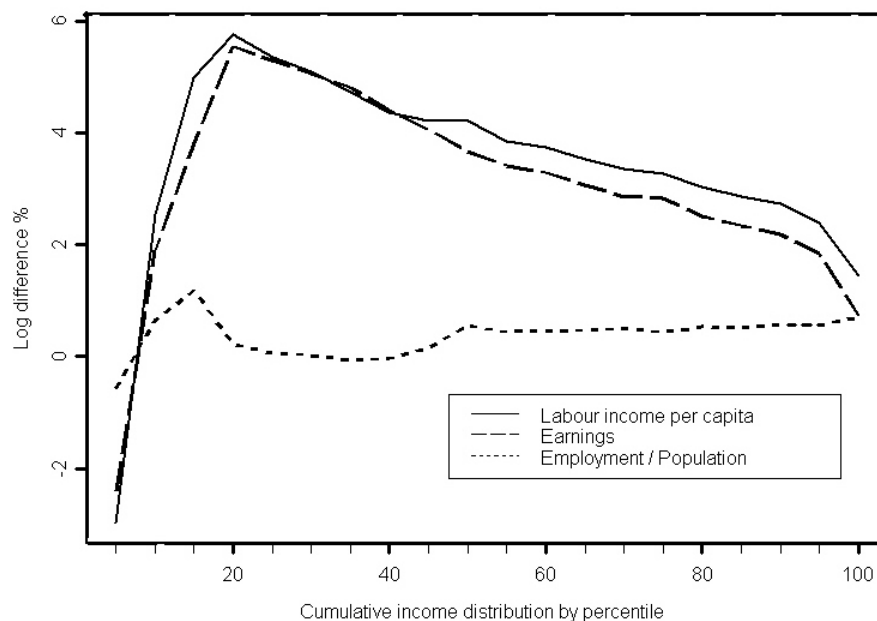
returned, for example, to household chores and children returned full-time to school. Since participation rates decreased sharply among poor households, it would be useful to understand the reasons for such a reduction in order to identify policies that could increase their overall participation in labour markets over the economic cycle. For this purpose, further research will be required.

5.3.4 2000-2004

In the last period 2000-2004, labour income per capita grew at an annual rate of 1.4 per cent (Table 4). The change in earnings contributed with 0.7 percentage points and the change in employment to population added another 0.7 percentage points. As the economy slowed down, unemployment increased. This means that the contribution of the employment rate to the increase in the overall employment/population rate was due totally to a higher participation rate and a more favourable household age structure.

The pattern of change during this period was pro-poor. Labour income per capita increased more than 10 per cent per year (Table 4). Figure 8 clearly shows that the rates of change of labour income per capita and earnings per worker become higher towards the poorer 20 per cent end of the distribution; it also shows, however, that the 10 per cent poorest did not fare as well as the 20 per cent or 30 per cent poorest. This particular pro-poor pattern (though not pro- extremely poor) originated exclusively in the fast increase of earnings (10.1 per cent). The poor's access to employment improved only marginally during these years, as this group faced a hike in unemployment rates and a continued fall of participation rates. The only positive employment outcome for this group was the improvement of availability rates.¹⁹

FIGURE 8
Income, earnings and employment: Mexico 2000-2004



Note: See note to Figure 1.

6 BRAZIL, CHILE AND MEXICO: AN OVERVIEW

Among the three countries that we have examined, the growth of labour income per capita fluctuated in a range between -1.6 per cent and 6.9 per cent across countries and periods (if the large contraction of -15.0 per cent experienced by Mexico in 1994-1996 is disregarded). Fluctuations in labour income per capita were often determined by the change in mean earnings per worker. Changes in employment, as measured by the employment to population rate, were frequently positive (i.e., in five periods). However, in most cases, employment's contribution was of secondary importance.

All three countries benefited from the contribution of favourable demographic trends. Changes in the age structure of the population that resulted in decreasing dependency rates (i.e., increasing availability rates) made a positive contribution to the employment to population rate, and thereby to household income. In addition to this factor, rising female participation in labour markets boosted overall participation rates.

With the exception of these trends, the employment outlook during the early 1990s to early 2000s was not bright. The increase of participation rates was not continuous. In two periods they decreased. Moreover, rising participation rates are not always a positive development. There were significant hikes in participation rates because poor households resorted to survival strategies to preserve minimum levels of income during times of economic hardship. Such 'positive' changes do not become permanent nor are they necessarily desirable economically since the socio-economic condition of households can be seriously damaged in the process. In addition, periods of recovery were usually associated with declining participation rates—instead of what one would expect, i.e., rising rates.

The most important factor holding down the increase in the employment to population rate was the widespread increase of unemployment. Unemployment rates actually increased in six out of the eight periods considered, even though labour income was rising in four of these six periods. Therefore, its overall contribution to household labour income per capita was negative.

When analysing changes in labour income at the household level, we have found a distributional pattern that alternates between periods of growth that are pro-poor and those that are not, with no clear trend towards a systematic redistribution over longer periods of time. This finding underscores the limitations faced by poor families in improving their position in labour markets, especially in periods of rapid growth. Thus, these trends highlight the need to develop more comprehensive interventions to significantly enhance the skills and productivity of poor workers.

A major additional problem affecting the employment changes in the countries and periods covered in this Working Paper is that the pattern of change rarely favoured poor workers. The message is clear: the opportunities of poor workers to gain access to decent jobs, especially during periods of economic expansion, need to be significantly improved.²⁰

The main factor behind the lack of a pro-poor pattern was the change in the employment to population rate. In four of the eight periods considered, the change in labour income per worker was pro-poor, but in only two periods was the change in the employment to population rate pro-poor. The lack of a pro-poor bias in changes in employment was due to the pattern of change of the participation rate and the unemployment rate. The changes in participation

rates were pro-poor in only three instances, while changes in unemployment were pro-poor in only one case, neutral in another, and not pro-poor in the other six periods.

In the eight periods analysed in this paper, the pattern of change of labour income per capita favoured the poor in only three instances: in Brazil during 1996-2004, and in Mexico during 1994-1996 and 2000-2004. In the other five cases, the pattern of change was not pro-poor. But even the character of the three 'pro-poor' cases needs to be qualified. As noted earlier, two of the pro-poor periods were periods of economic contraction. During an economic slowdown, the 'pro-poor' nature of the change in income can reflect the survival strategies of poor households, whose absolute level of income simply cannot decline further without compromising their most basic consumption.

Classifying the eight country-periods discussed in this paper in a two-way table of 'growth/no growth' vis-à-vis 'pro-poor/not pro-poor', Chart 1 shows that there are two cases in the cell '*no growth & pro-poor*' but five cases in the cell '*growth & not pro-poor*'. Whatever optimism one might have about the labour performance of these countries is likely to be undercut by observing that there is only **one** case in the cell '*growth & pro-poor*'. But even in this case, the increase in income was modest and not favourable, in fact, to the extremely poor.

CHART 1

The Pattern of Changes in Household Labour Income Per Capita

		Pattern	
		Pro-Poor	Not Pro-Poor
Growth	Yes	Mexico 2000-2004	Brazil 1992-1996
			Chile 1996-2000
			Chile 2000-2003
			Mexico 1996-2000
			Mexico 1992-1994
	No	Brazil 1996-2004	--
		Mexico 1994-1996	

Source: Tables 1 to 4.

7 FINAL REMARKS

Citizens of Latin America often consider lack of employment as one of the major problems that they face. In the 1990s, slow growth, capital-intensive investments, rising unemployment and the lack of decent-quality jobs led to only modest improvements in employment conditions after the sharp worsening of the 1980s. The overall result was that poverty did not decrease much and inequality remained high.

Examining the three countries of Brazil, Chile and Mexico, which share a record of modest reductions in inequality and poverty, we sought in this Working Paper to examine more closely the major determinants of household labour income in order to shed light on the links among growth, employment and poverty. To incorporate the short-term variations

in the economic performance of these three countries, we distinguished two periods for Brazil (1992-1996 and 1996-2004), two periods for Chile (1996-2000 and 2000-2003), and four periods for Mexico (1992-1994, 1994-1996, 1996-2000 and 2000-2004). That is, a total of eight country periods were considered.

We used a methodology to identify, with some detail, the variables that have prompted changes in household labour income per capita in these three countries since the early 1990s. We decomposed the change in labour income per capita into the change in earnings per worker—formal wages and labour income from informal activities—and the change in the rate of employment of household members, i.e., the employment to population rate.

Results from this decomposition confirm that earnings were the single most important determinant of the change in household labour income per capita. The change in earnings had the largest impact on household labour income in five of the eight country periods considered. Changes in the employment to population rate did play a role in determining labour income, but was much less important. Not only was the magnitude of its contribution smaller, but also its employment to population rate moved in a direction opposite to the change in household labour income in half of the eight country periods analysed.

A further decomposition of the factors that explain changes in the employment to population rate allowed us to identify the way that the unemployment rate and the participation rate interacted in shaping the link between employment and poverty. Changes in participation rates were particularly important during periods of economic stress, when families attempted to increase the number of their working members in order to compensate for lost income. In fact, the change in participation rates contributed positively to the change in household labour income in six of the eight periods considered.

The rate of unemployment was also important in all three countries, reflecting business fluctuations and the interaction of supply and demand in labour markets. More important than the magnitude was the sign of its contribution. The unemployment rate increased in six out of the eight periods considered, thereby pushing household labour income down. In fact, in four of the periods, the increase in unemployment happened at the same time that labour income per capita was rising.

Our results also confirm the contribution of the demographic dividend in increasing household labour income per capita. It did so by reducing the number of dependants vis-à-vis working-age members within the household.

With regard to the distributional impact of income changes, we found that periods of growth in labour income were generally not pro-poor. This was the case in Brazil during 1992-1996, Chile during 1996-2000 and 2000-2003 and Mexico during 1992-1994 and 1996-2000. In these cases, the increase in labour income for the poorest 20 per cent of household members was below the rate of increase of the population mean.

Moreover, in three periods the change in labour income for the poorest 20 per cent was actually negative. Our approach of looking at the entire distribution of income has allowed us to see that, in some cases, the lower we look in the distribution (say, at the 10 per cent and five per cent poorest household members), the further behind we find households to be in terms of gains in labour income.

In two country cases we found a pro-poor distributional pattern during an overall contraction of labour income: Brazil in 1996-2004 and Mexico in 1994-1996. Labour income for poor households did not decrease as much as the mean in Mexico while it actually increased slightly in Brazil. The analysis of these cases suggests that during periods of crisis, poor households activate a variety of survival strategies to compensate for income losses (mainly by increasing participation in labour markets, which leads to more employment). Since households at an already low level of income cannot afford further economic declines, they find ways, often mostly informal, to compensate for the income loss.

This Working Paper has found that there was only one 'authentic' case of pro-poor growth: Mexico in 2000-2004. Here growth was pro-poor at the household level in a period of increasing labour earnings. Actual gains, however, were not large: mean labour income grew at 1.4 per cent a year; moreover, the change in labour income was not favourable to the extremely poor.

Our decomposition exercise has shed light upon the mechanics of pro-poor changes in labour markets. Overall, changes in earnings per worker tended to be more pro-poor than changes in the employment to population rate. While in four periods the change in earnings was pro-poor, in only two periods was the change in the employment to population rate pro-poor. In contrast, the labour income of non-poor workers increased more rapidly at times of economic expansion, but fell more at times of economic contraction.

While poor household members tended to increase their participation rates more vigorously than non-poor household members at times of economic stress, they also tended to withdraw from labour markets when the economy improved. This dynamic resulted in changes that were rarely pro-poor over the cycle. Also, the increase in unemployment was systematically more severe among the poor. In only one case was the change in the unemployment rate pro-poor.

These findings could have useful policy implications. Since labour income is the single most important determinant of household income, by far, for all income groups, the poor respond rapidly to economic fluctuations that affect such a source of income. They exhibit significant flexibility in participating in labour markets in order to compensate for earning losses at times of contraction. However, they do not always succeed in their search for a formal job or other meaningful work activity. The more extremely poor they are, the lower their rate of success.

Moreover, at times of growth, poor households seem to face significant impediments to participating in dynamic labour markets. Growth is good for the poor in the sense that their income increases, but it is clearly better for the non-poor. Hence, the distributional pattern of periods of growth in labour income seems to be systematically widening the income gap between the poor and the rest of the population.

TABLE A.1

Poverty and Inequality in Brazil, Chile and Mexico

	Brazil			Chile			Mexico				
Inequality	1992	1996	2004	1996	2000	2003	1992	1994	1996	2000	2004
Relative mean deviation	0.428	0.448	0.421	0.419	0.427	0.417	0.404	0.410	0.393	0.391	0.372
Coefficient of variation	1.982	1.841	1.810	1.809	2.025	2.338	1.700	1.831	1.892	1.621	2.385
Standard deviation of logs	1.118	1.126	1.056	1.010	1.021	0.982	1.037	1.055	0.988	0.969	0.948
Gini coefficient	0.581	0.601	0.570	0.563	0.574	0.562	0.550	0.559	0.538	0.534	0.511
Mehran measure	0.716	0.735	0.701	0.686	0.695	0.681	0.681	0.689	0.667	0.662	0.639
Piesch measure	0.513	0.533	0.504	0.501	0.513	0.503	0.485	0.494	0.473	0.470	0.447
Kakwani measure	0.276	0.295	0.267	0.263	0.272	0.263	0.251	0.258	0.240	0.237	0.219
Theil index (GE(a), a = 1)	0.677	0.710	0.650	0.654	0.703	0.701	0.614	0.645	0.599	0.574	0.551
Mean Log Deviation (GE(a), a = 0)	0.634	0.670	0.595	0.570	0.595	0.565	0.564	0.584	0.527	0.513	0.474
Entropy index (GE(a), a = -1)	11.881	1.333	1.139	1.209	1.167	1.046	1.066	1.185	0.902	0.855	0.860
Half (Coeff.Var. squared) (GE(a), a = 2)	1.934	1.659	1.619	1.629	2.036	2.717	1.443	1.671	1.786	1.311	2.837
Poverty											
p0 Line 1	0.408	0.333	0.307	0.269	0.251	0.223	0.362	0.368	0.497	0.326	0.244
p1 Line 1	0.193	0.157	0.134	0.096	0.092	0.079	0.149	0.150	0.218	0.120	0.090
p2 Line 1	0.123	0.098	0.079	0.050	0.050	0.042	0.085	0.085	0.125	0.062	0.049
p0 Line 2	0.195	0.147	0.116	0.075	0.075	0.060	0.244	0.252	0.366	0.207	0.149
p1 Line 2	0.085	0.066	0.049	0.026	0.030	0.024	0.097	0.098	0.146	0.071	0.055
p2 Line 2	0.053	0.042	0.030	0.016	0.019	0.016	0.054	0.054	0.079	0.035	0.030
p0 Line 3				0.075	0.075	0.060	0.081	0.075	0.114	0.045	0.041
p1 Line 3				0.026	0.030	0.024	0.027	0.028	0.038	0.014	0.016
p2 Line 3				0.016	0.019	0.016	0.014	0.016	0.020	0.007	0.009

Own estimates based on household surveys..

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NOTES

1. See IDB (2004).
2. See, for example, Berry (2007); Galli (2004); Katz and Stumpo (2001); Rodríguez and Rodrik (1999); and Weller (2001).
3. For Brazil we use the Pesquisa Nacional por Amostra de Domicílios (PNAD), 1992, 1996 and 2004 (www.ibge.gov.br). The survey is conducted during September and the sample size varies from 317,315 to 399,354 individuals. For Chile we use the Encuesta de Caracterización Socioeconómica (CASEN), 1996, 2000 and 2003 (MIDEPLAN www.mideplan.cl/casen). The survey is conducted during November and the sample size varies from 134,262 to 257,077 individuals. For Mexico we use the Encuesta Nacional de Ingreso y Gasto de los Hogares (ENIGH), 1992, 1994, 1996, 2000 and 2004 (INEGI www.inegi.gob.mx). The survey is conducted from August to November, except for 1994, when it was conducted from September to December; and the sample size varies from 50,862 to 91,738 individuals. These data sets contain rich information on total income, labour income and other incomes. We kept the concepts of labour income and other income sources used in each survey, which are comparable throughout the years covered in this study. In all cases, we deflated current income by the official consumer price index of the month in which the survey was collected, using the date of the most recent survey as the base. Income data for Chile include the imputed value of owners' occupied housing in the current income of households; but we deliberately decided not to follow this procedure. In the case of Brazil we constructed variables using total labour income and total individual income in the micro data. IBGE, the statistical office, does not correct income variables for non-response and under-declaration. We dealt with non-responses by excluding households when at least one member reported income but the amount was unknown. Since the sample size for PNAD is large, this procedure does not affect the results obtained. The data base for Chile published by MIDEPLAN is already corrected for non-response and under-declaration by a methodology proposed by ECLAC. The micro data for Mexico provide fairly detailed reporting of household income. To maintain comparison with Brazil and Chile, we limited the analysis to monetary income. We calculated monthly income as the adjusted average of income earned in the six months prior to the interview, following the methodology used by the Mexican government to make official estimates of poverty. There are no cases of non-response in the dataset and no correction for under-declaration.
4. Data are from ILO www.ilo.org on-line database.
5. GDP per capita growth estimates for Brazil, Chile and Mexico in this section are calculated on the basis of constant-PPP US dollars based on World Bank's WDI on-line data.
6. See Table A.1 in the appendix. These changes in inequality are robust to most inequality indexes and are also consistent with findings of other studies. For example, ECLAC (2005) estimates a Gini index of 0.639 in 2001 for Brazil. According to this estimate, Brazil had the highest inequality in the region. For a discussion of inequality in Brazil, see Soares et al. (2007) and Paes de Barro et al. (2007).
7. Informality is defined as non-professional self-account workers, employees without registration and domestic workers.
8. ECLAC (2005) estimates a Gini coefficient of 0.559 for 2000.
9. ECLAC (2005) estimates a Gini coefficient of 0.515 in 2002.
10. The internationally comparable rates of ECLAC (2005) placed moderate poverty at 40 per cent and extreme poverty at 13 per cent in 2002.
11. See, for example, Islam (2006).
12. While wages are rarely set by the hour unit of time in the countries under analysis, the number of hours worked does play an important role in determining workers' earnings. The number of hours worked is an indicator of work effort but also of access to work; this is the case for wage employees because the payment for overtime can increase the total take-home wage while working part-time can substantially decrease earnings. In the case of the self-employed, one might also expect that the amount of time devoted to work could influence income flows, particularly when workers perform self-employed activities only during certain days of the week or certain hours of the day. We nevertheless took the decision not to further decompose earnings per worker into earnings per hour and the number of hours per worker per day.
13. To facilitate comparisons, all rates of change presented in the remainder of this paper are annualised, regardless of whether or not this is made explicit in the text.
14. We will interchangeably call the employment to the economically active population rate as the unemployment rate. If the employment to the economically active population rate increases, we call it a decrease in the unemployment rate and vice-versa.
15. After four years of declining growth rates, GDP grew four per cent in 2000.
16. As in the case of Brazil, changes in the dependency rate contributed positively in both periods.
17. Since earnings at the upper end of the distribution did not fall, there was not much need to increase participation rates beyond the trend rate, and unemployment increased little.
18. This is true except for the bottom 10 per cent of the population, while the increase in employment was slightly stronger the lower the income of the household.
19. We should assess these results with caution due to the changes in the sample and methodology of the surveys that were introduced in 2002 and 2004. Reportedly, such changes did not influence general estimates of poverty and other indicators, but could have affected more disaggregated estimates such as the ones we are examining.
20. An extreme case of the interplay between these variables is Argentina's rapid increase in unemployment and poverty during the 1990s. However, Gasparini et al. (2005) point out that the employment to population rate actually remained more or less constant, implying that the increase in unemployment was prompted by increasing participation rates.



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