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Persistent Poverty and Excess Inequality: Latin America, 1970-1995

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Abstract: This work assesses the changes in aggregate poverty and inequality that have taken place in Latin America during the past 26 years. With this objective, we put together the largest number of comparable observations on income distribution for the region for the period from 1970-1995. We find that poverty and inequality have not declined during the 1990s in spite of improvements at the macroeconomic level. The characteristics of our data allow us to perform various comparisons between countries. Our results show that even though there are differences in levels across countries, inequality and poverty in most of them follow similar trends during the period under study. We present an Appendix where the changes registered in 13 Latin American countries, which include 83% of the total population, is documented in detail.

JEL classification: D31, I32, O54.
Key words: Poverty, Inequality, Latin America.

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Introduction

During the past 26 years, the Latin American and the Caribbean (LAC) region has gone through three stages. The 1970s were characterized by macroeconomic stability and high growth rates. The 1980s were years of volatility and stagnation, while the first half of the 1990s has seen a return to a more stable macro environment and the recovery of positive growth rates[2].

With regard to the welfare changes at the microeconomic level, it is normally thought that poverty and inequality were reduced during the 1970s, and it is widely agreed that both of these indicators deteriorated sharply during the 1980s[3]. Not much evidence has been produced for the 1990s, but in principle one would expect that given the favorable conditions, the number of poor and the level of inequality would have been reduced.

The objective of this work is to assess the changes in poverty and inequality that have taken place in LAC from 1970 to 1995, with special emphasis on the 1990s. The main distinctive characteristic of the study is that rather than focusing on individual country experiences, as most of the literature on this subject has done, we produce aggregate indicators for the whole region.

Apart from presenting aggregate poverty and inequality estimates for the past 26 years, a contribution of the paper is that it puts together the largest number of comparable observations on income distribution during that period. We do this by expanding by 55% the data base compiled by Deininger and Squire (DS) (1996). This allows us to construct several aggregate indicators such as a LAC Lorenz Curve, and to perform various comparisons between countries.

Contrary to our expectations, we find that although the 1990s have been a decade of recovery and stability, poverty and inequality have not declined significantly in the region. This suggests that although a favorable macroeconomic scenario could facilitate poverty alleviation and improvements in income distribution, it is not a sufficient condition.

As aggregate trends inevitably hide a variety of country experiences, we also engage in an analysis of the differences between countries. We find that even though there are discrepancies in the levels of poverty and inequality across the countries in our sample, most of them followed roughly the same trend as the aggregate indicators. Finally, we present an Appendix where we describe the trends in thirteen countries in more detail, and we provide more information on data sources.

The work is divided in five sections. The first section describes the data, the second presents the aggregate trends in inequality, the third focuses on the changes in poverty, the fourth compares the welfare changes between

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[2]Inter American Development Bank (1997).

[3] This has been documented by Psacharopoulos, et.al. (1993), Bulmer-Thomas (1996), Lustig (1996), Fields (1992), Morley (1992), Chen, et.al. (1994), Ravallion and Chen (1997), and Altimir (1994a), among others.

countries, and the last draws some conclusions.

I e ata

As argued by Deininger and Squire (1996), a "good quality" indicator on income distribution for any country fulfills at least the following minimum requirements: (I) it is obtained from a household survey, (ii) it contains information on all income sources, (iii) the unit of observation is the household or the individual, and (iv) it is representative at the national level. The main problem found when estimating the level of inequality and poverty in any region is that this kind of information is usually not readily available for all countries, and LAC is not the exception.

In the most comprehensive worldwide compilation of income distribution indicators up to date, Deininger and Squire (1996) were able to put together 96 "good quality" observations for the LAC region from 1970-1994[4]. Each observation consists of a Gini coefficient, and in most cases there is also information on the distribution of income or consumption by quintiles. By adding the restrictions (I) of having at least one observation for each decade and country[5], (ii) of reporting both the Gini coefficient and the quintile shares[6], and (iii) that inequality within any given country is measured consistently by using either expenditure or income as welfare indicator[7], we ended up with 73 observations.

Following the same criteria proposed by (DS), we were able to find 40 additional "good quality" observations for several Latin American countries, which are not in the original DS data base[8]. As we had access to the original household surveys in each of these 40 cases (one observation for Panama and two for Peru were obtained from published sources), we estimated a Gini coefficient and the quintile shares with primary data by using common methodology and definitions. This increases the level of comparability among these observations.

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[4] The original data consists of 682 observations for 108 countries from 1947-1994. For the purposes of this work, we classified The Bahamas as a Latin American country, although it is not originally classified as such. Therefore, the number of observations in Latin America from 1970-1995 in the original data base is 86.

[5] This restriction guarantees that the sample of countries is stable throughout 1970-1995. To fulfill this requirement, we discarded 9 observations belonging to Bolivia, Ecuador, El Salvador, Nicaragua, Puerto Rico, and Trinidad. We made three exceptions regarding the inclusion of a country in our sample. First, we included Guatemala although the country does not have information for the 1990s. In this case, a distribution for 1989 is available, and we used it as a proxy for the present decade. The second exception is Honduras, which originally does not have a distribution for the 1970s. Nevertheless, the country has an observation for 1968 and we used this distribution to compute the estimates for 1970. The third is the inclusion of the Dominican Republic, which does not have an observation for the 1970s.

[6] This is necessary for measuring poverty. To fulfill this restriction, we had to eliminate 16 observations.

[7] To fulfill this requirement we drop 3 observations from the original data set (Brazil 1974, and Peru 1971 and 1981).

[8] The additional observations by country were: Brazil (4), Chile (4), Colombia (1), Costa Rica (6), Dominican Republic (2), Honduras (4), Mexico (2), Panama (2), Peru (3), and Venezuela (12).

To the 73 observations in DS we added our 40 observations, and ended up with an expanded data set consisting of 113 Gini coefficients and quintile shares belonging to 13 countries from 1970-1995. This is the largest "good quality" data set available for the region for this period, and it covers 83% of the LAC population. Our expanded data includes 31 observations for the 1970s, 43 for the 1980s, and 39 for the 1990s. Table A1 in Appendix A provides more information on sources[9].

Although our data can be regarded as being of better quality and coverage than the one used in other studies[10], the observations are still not strictly comparable among them. This limitation is not exclusive to the LAC region, as any international comparison faces the problem of having different methodologies and questionnaires to gather information, as well as differences in the treatment of non-cash incomes, in survey data collection, in the definition of a welfare indicator, in the unit of observation, etc[11]. As explained by Atkinson (1995) complete cross-national comparability is not attainable. Comparability is more a matter of degree and all one can hope for is reaching an acceptably high level.

DS noted that the two main problems of comparability in their data (this applies also to the expanded LAC data base), are that there are differences regarding the unit of observation (individuals or households) and that in some countries the welfare indicator is income and in others it is consumption. With regard to the first problem, the authors tested the hypothesis that there is significant difference between the Gini indexes computed with the distribution by individuals, and those obtained with the distribution by households, but they found no evidence supporting the argument. Therefore, we have used all the data irrespective of the unit of observations as this is not likely to introduce considerable bias into our results[12].

In the case of welfare indicators, the authors found that the distribution of incomes was systematically more unequal than the distribution of consumption, as would be expected. In LAC, most countries report the distribution of income, and only Jamaica and Peru have household surveys that focus on consumption. Deininger and Squire have suggested adding 6.6 points to the Gini coefficients that are based on consumption to make them more comparable with income distribution[13]. We have not followed the same procedure here, so the implication for our

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[9] On average, we have one observation per country every four years, but there are differences between countries. For instance, Venezuela has 22 surveys from 1970-1995, while Guatemala has only 3. There are also countries like The Bahamas, Brazil, and Costa Rica with 10 or more observations (which gives an average of one observation almost every two years). The remaining countries have one survey approximately every 4 years.

[10] See for instance the work by Psacharopoulos, et.al. (1993).

[11] Berry, et.al. (1983a), Atkinson and Micklewright (1992), Grosh and Glewwe (1996), Gottschalk and Smeeding (1997), and Ravallion and Chen (1997) discuss these issues.

[12] Mixing information on households and individuals implicitly assumes that household size is invariant across the distribution, and that the equivalence scale is equal to 1. It is well known however, that poorer households are usually larger; therefore, the assumption may result in underestimated poverty.

[13] By using the original data set the authors found that on average, the Gini measured with income was 6.6 greater than the Gini measured with consumption.

conclusions is that we might be underestimating the level of poverty and income inequality in LAC (due to the incorporation of some consumption-based estimates), but the magnitude of the underestimation is not likely to be very large.

In Latin America, perhaps the main comparability problem is caused by the significant differences in under-reporting across countries and even within the same country throughout time. Therefore, an apparent change from one point in time to another could be caused simply by changes in under-reporting. There are several ways of correcting this problem, and in Section III we explain how we will proceed to do so here.

II an es in Inequality in LA urin 1970-1995

In this section we provide a picture of the changes in inequality that have taken place in LAC from 1970-1995. In contrast to related studies that look at individual countries to derive conclusions for the whole region, our objective is to produce yearly aggregate indicators for LAC. We start by discussing some methodological issues, and then present the aggregate trends.

et odolo ical Problems

There are three main problems that have to be solved in order to obtain an aggregate estimate of inequality for any region in the world. The first is missing data, the second is the selection and computation of inequality measure, and the third is the method of aggregation.

A problem of missing data arises because the expanded data set does not include one observation per country per year. To include countries with no data, several authors have extrapolated indicators by using an econometric model applied to the existing observations[14], but for our purposes we do not consider this necessary as our sample already covers a very large proportion (around 83%) of the LAC population. Regarding the missing years, in Table A1 in Appendix A we show that there is not a single year for which all of our 13 countries have a household survey. The closest is 1989, where Colombia and Peru are the only without information. Therefore, we need some assumptions about how income distribution changes through time. The most common procedure is to use the distributions available and, assuming that inequality remains very stable, impute this information in other

[14] For instance, Schultz (1997), Morley (1995), and Psacharopoulos, et.al. (1993) have used GDP per capita and regional dummies to predict the variable, while Ravallion, et.al. (1991) and Chen, et.al. (1994) use a more complex model that includes life expectancy, child mortality, school enrollment, and urban-rural distribution of the population to predict the extent of poverty in countries where information on income distribution is unavailable. One of the draw backs of the latter procedure is that Lustig (1996), Fields (1992), and Kakwani (1993) have shown that most of the times poverty and inequality in LAC and other regions in the world have been only weakly correlated to the indicators used to predict them. This suggests that any extrapolation will be subject to some error.

years[15]. Since we noticed that among the countries in our sample there are considerable variations in inequality in short time periods, we assumed that inequality changes smoothly and interpolated the quintile shares for the missing years[16].

Once we have one observation per country per year, we have to decide how to summarize the information on inequality. Here we will use several measures that are directly derived from the quintile shares, plus the Gini index. As shown by Lerman and Yitzhaki (1989), in the case of the Gini there are several ways of estimating the index from aggregate data. Here, we will proceed by using the parametrization suggested by Villaseñor and Arnold (1989), which produces very accurate estimates[17].

Regarding the problem of aggregating the data to obtain an indicator for the region as a whole, there are at least three possibilities. The most straight forward is simply to obtain the average Gini index (see for instance Deininger and Squire). A second option is to follow Theil (1967), Berry, et.al. (1983b), Korzeniewics and Moran (1997), and Schultz (1997), and compute a measure of inequality by adding the inequalities within countries to the differences between countries. Still a third possibility is to compute the index by constructing a Lorenz Curve that ranks individuals according to their position within the LAC region rather than with respect to the position they hold within their country of origin. This procedure has been followed by Grosh and Nafzinger (1986), Berry, et.al. (1983a), and Atkinson (1996); since these three methods provide useful information, we will use each one.

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As mentioned above, one possibility for summarizing the information on income distribution is to construct a Latin-American Lorenz Curve that ranks each country's individuals according to their position in the LAC population. To obtain such ranking, we would require the income of each individual, but as we only have information on quintile shares there would be a large margin for error. Fortunately, the procedure in Villaseñor and Arnold (1989) allows us to obtain the fitted value of a Lorenz Curve with any level of disaggregation once the parameters of the original curve are known. To improve the precision of the per capita income estimates, we estimated the parameters for every country and year and then derived the fitted distribution by percentile, rather than by quintile. Given the new desegregated distributions, we computed the real income of each percentile by

[15]Ravallion and Chen (1997), Schultz (1997), Chen, et.al. (1994), and Grosh and Nafzinger (1986) have followed this procedure.

[16] In the case of Chile, Honduras, and Mexico we used the observations for 1968 to derive the trends in the early 1970s due to the lack of observations closer to 1970. To estimate inequality during the 1990s in the three countries that do not have information for 1993, 1994, or 1995 (Guatemala, the Dominican Republic, and Panama), we assume that income distribution follows the trend observed in the previous 3 years.

[17] This parametrization consists of finding the quadratic equation that provides the best fit for a Lorenz Curve, given the data ordered by population and income shares.

country, using the PPP adjusted GDP per capita from the World Penn Tables[18]. With the 1,300 observations per year (100 per country), it was possible to find the position of each percentile within the region. Using this methodology, we present our estimates of inequality in Figure 1.

First, regarding macro economic performance, the figure illustrates that the decade of the 1970s was one of economic expansion, ending in 1981. The early 1980s were characterized first by recession and later by stagnation, while the 1990s show a recovery. Also income distribution improved substantially from 1970 to 1982 (the Gini index was reduced by five points), while the 1980s coincided with a sharp deterioration in income distribution (the Gini peaked at 58.3 in 1990). With regard to the 1990s, the distribution of income seems to have fluctuated around the level registered in 1990. Therefore, contrary to expectation, income inequality has not improved during the recovery process.

[18] This source only provides information up to 1992. We constructed the PPP GDP per capita for the missing years by using the real growth rate of GDP per capita reported for the 13 countries.

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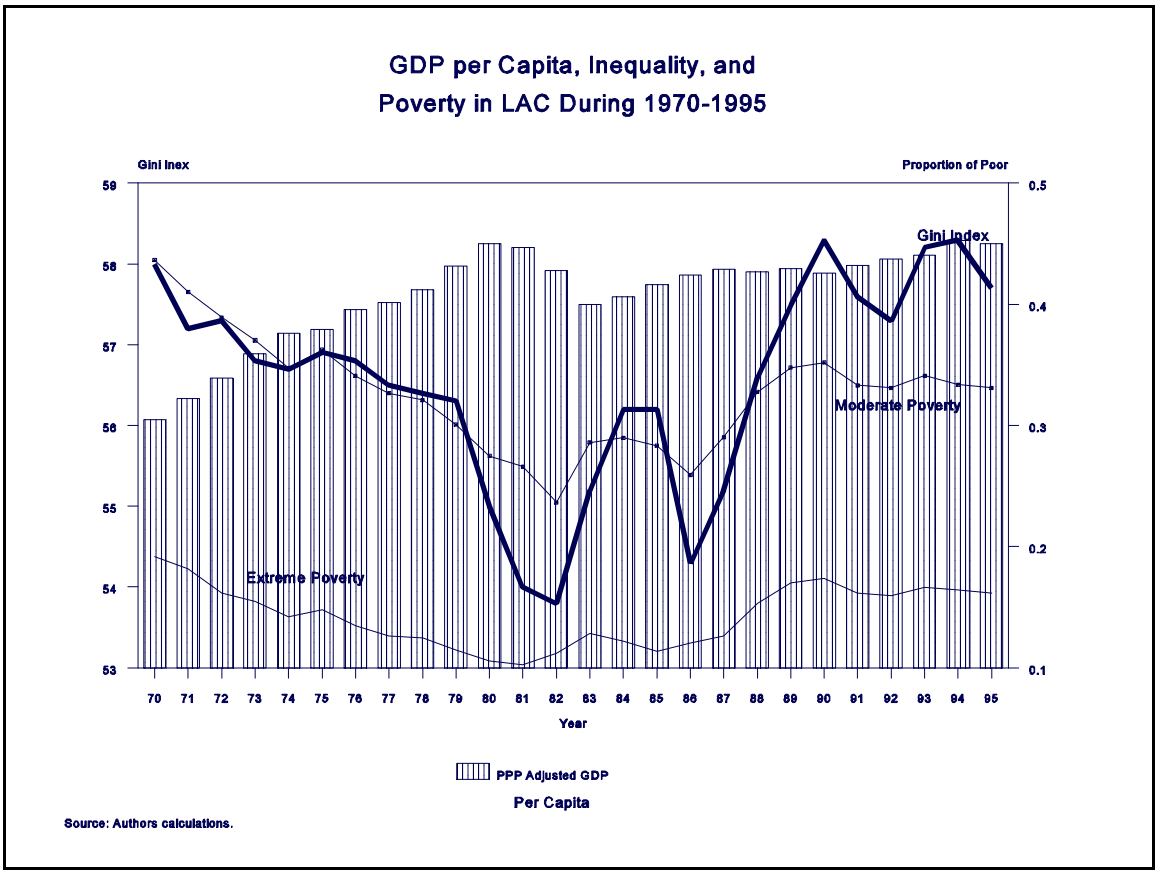

Table A2 in Appendix A shows our computations of the average Gini coefficient calculated from the individual Gini of each country - that is, ranking individuals according to their position within the country rather than with respect to the region -. Both the average and the population-weighted Gini coefficients follow the same trend as the one computed from the LAC Lorenz Curve, although they are of different magnitude. The fact that the weighted average is greater than the non-weighed average in each year indicates that larger countries are generally more unequal.

The Gini indexes in Table A2 in can be compared with those obtained for other regions in the world. For instance, the decadal averages of Gini coefficients in LAC reported in Deininger and Squire are somewhat lower than our estimates. They report an average Gini of around 50 points for each decade but this is still higher than the Gini for any other region. Grosh and Nafzinger (1986) computed a world Lorenz Curve for 1970, and found that the greatest Gini is registered in Capital-Surplus Oil Exporters with a coefficient of 55.4 points. According to our estimates, the LAC Gini derived from the aggregate Lorenz Curve - which is comparable with the methodology of these authors - for this year was at 58 points, which confirms that LAC is the most unequal region in the world.

As Atkinson (1970) explained, different inequality measures give different weight to different sections of the distribution, so it is convenient to check the robustness of our results not only to the method of aggregation, but also to the choice of an index. Table A2 presents the estimates of two other inequality measures, namely the share of the top to the bottom quintile - which only attaches weight to the two tails of the distribution - and the Theil inequality index. The aggregate quintile shares are obtained through weighted and non weighed averages and by using the LAC Lorenz Curve, which, along with the Theil index, substantiates our conclusions about the trend from 1970 to 1995.

One advantage of the Theil inequality index is that it can be decomposed into two terms: one that indicates the amount of inequality due to differences between countries, and another that computes the inequality within the countries[19]. Table A2 presents the separation of the index into these two terms, and shows that most of the inequality in LAC is due to differences within the countries, while only around 10% of overall inequality is due to between country disparities.

This result is interesting for three reasons. First, it shows that there are small differences between the countries of the region; thus, computing an aggregate index makes sense and provides a good representation of the country experiences. Second, it can be argued that inequality in LAC is expected to be higher than the inequality in other regions simply because LAC is large in size and it includes a large number of countries at different stages of development. However the evidence for the between-group element of the decomposition proves that this is not the case.

Third, the results suggest that the large fluctuations in aggregate inequality in LAC experienced during the past 26 years are the outcome of large income redistributions occurring within the countries (the specific country experiences detailed in Appendix B confirm this). This finding is not in line with the idea put forward as a "new stylized fact" of development by Li, et.al. (1996), Deininger and Squire, and Fields (1992), that inequality within countries is relatively unimportant as compared with between-country discrepancies. The evidence we provide suggests that within the LAC region this is not the case[20].

It is interesting to note that Deininger and Squire arrive at the conclusion that average inequality in LAC countries does not change significantly through time, but in this case the inference was made by looking at the average Gini for each decade, and for a non-stable sample of countries in the region (see Deininger and Squire, table 3). As the information in Table A2 corroborates, the average for the 1970s and 1980s is similar because such averages result from adding low and high Gini coefficients of similar magnitude in each case. Specifically, inequality

[19]Cowell and Jenkins (1995), Shorrocks (1980), Bourguignon (1979), and Foster and Sen (1997) have shown this.

[20]Schultz (1997) arrived at the same conclusion. This author compared the differences between and within countries by region, and found that LAC registers the lowest between-country inequality. The results can be compared to those obtained by Korzeniewicz and Moran (1997), and Theil (1967), who show that in the world aggregate - that is, for all the countries for which they have information - the between-country component of inequality is quite large (around 70%).

follows a "U" shape trend because the Gini falls from high to low levels in the first decade, while rising from low to high values in the second. When the observations are summarized in a decadal average, the "U" shape is hidden by the aggregation method. Therefore, averaging over decades when there are large short-run fluctuations may lead to different impressions about the changes that are taking place.

To obtain a clearer idea about the magnitude of the changes, in Table 1 we present the distribution of income by deciles in LAC, derived from the LAC Lorenz Curve[21]. It can be seen in the upper section of the Table that there are very large differences among the income shares of different groups. Apparently the 1970s were characterized by an expansion of the incomes of the poor and the middle classes at the expense of the richest 20% of the population. The 1980s show the opposite: the income share of the poorest 90% decreased considerably (see specially the drop in the poorest decile), while the income share of the richest 10% expanded by 10.6%. The 1990s show still a different picture, with the poorest and the richest deciles losing part of their share, and the middle classes expanding it[22].

[21]Table A2 in presents the average quintile shares as a reference.

[22]It should be noted that the 1980 distribution Lorenz dominates the 1970 distribution, and the 1990 distribution dominates the 1980 distribution, but the 1990 and 1995 Lorenz Curves intersect.

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Income istribution in LA

	Year				(%) Change		
	1970	1980	1990	1995	1970-80	1980-90	1990-95
ecile istribution							
I	1.0	1.1	0.9	0.8	10.1	-15.2	-14.6
II	1.7	1.9	1.8	1.7	9.3	-5.5	-3.6
III	2.5	2.8	2.6	2.6	11.8	-6.3	2.1
IV	3.5	3.8	3.5	3.5	9.0	-7.3	0.2
V	4.5	4.9	4.7	4.8	8.4	-4.2	2.0
VI	5.9	6.2	5.9	6.2	5.4	-4.8	3.9
VII	7.7	8.5	7.7	8.0	10.3	-9.3	3.2
VIII	10.9	11.6	10.6	11.1	6.5	-8.8	4.9
IX	17.0	16.9	15.4	15.9	-0.9	-8.5	3.1
X	45.2	42.3	46.8	45.4	-6.4	10.6	-3.0
ini Index	58.0	55.0	58.3	57.7	-5.2	6.0	-1.0
uintile ares	22.9	19.8	22.9	24.4	-13.5	15.7	6.6
eneral Entro y Index							
a=-1	1.29	1.11	1.21	1.26	-14.0	8.9	4.3
a=-.5	0.77	0.69	0.76	0.80	-10.0	10.0	5.1
a=0	0.62	0.56	0.63	0.63	-10.2	13.1	0.6
a=.5	0.60	0.53	0.62	0.61	-12.1	17.9	-1.7
a=1	0.68	0.56	0.73	0.70	-16.5	28.7	-3.3
a=2	1.63	0.99	1.94	1.79	-39.3	96.7	-7.6

* *Source: Authors' calculations.*

Another way of looking at these changes is to use a set of inequality measures that apply different weight to different sections of the distribution. One such set of indices is the Generalized Entropy Family of Inequality measures (*E*) explained by Cowell and Jenkins (1995) and Foster and Sen (1997), which have the following form:

$$E \text{ ' } 1\&[\frac{1}{n_x}\mathsf{E}^{i \text{ ' } 1}(\frac{x_i}{\mu_x})^a]^{(1/a)}$$

where *a* is a parameter that can be assigned any real value. Specifying a high positive value yields an index that is more sensitive to redistributions at the upper tail of the distribution, while a negative value yields indices attaching larger weights to changes at the lower tail.

The lower section of Table 1 presents the value of *E* for several values of the parameter. According to our results, income distribution improved during the 1970s irrespective of the particular value attached to *a*. The result

is corroborated by the Gini and quintile share indices. If the parameter is given a higher value, the improvement in income distribution appears to be larger. Similarly, the proportional change in the quintile shares is greater that the shift registered in the Gini. This means that most of the changes during these years were taking place at the tails of the distribution, and more specifically, that they were caused by a reduction in the income share of the richest sectors of the population. The results for the 1980s confirm that there was a sharp deterioration in income distribution because the share of the richest decile increased disproportionately. By looking at the change in the quintile shares and the Entropy measures we conclude that most of the shifts take place at the tails of the distribution by a combination of a reduction in the income share of the poor and a rise in the share of the rich.

With regard to the 1990s, we find that if we attach a larger weight to the very poor, inequality appears to increase, while if we value more the transfers at the top of the distribution (particularly the top middle classes), inequality declines. This is determined by the fact that the Lorenz Curves for 1990 and 1995 intersect and therefore no unambiguous conclusion about the change in inequality can be obtained. This is interesting because as previously stated, we expected the recovery process to be accompanied by reductions in inequality, and it is specially surprising to observe that if the quintile shares are used as a measure of inequality, we will conclude that the distribution deteriorated by 6.6%. Therefore, in the past few years there were some gains for the middle deciles, but the distance between the two extremes of the distribution was expanding.

e an es at t e Extremes

To provide a better idea about the extent to which income is polarized in Latin America, we estimated the average income of the poorest and richest 1% of the population of the region by using the LAC Lorenz Curve. Table 2 presents the results and shows that in 1970 the poorest and richest 1% in LAC earned on average $112 and $40,711 PPP adjusted 1985 US dollars per capita per year, respectively - that is, the top percentile earned 363 times more than the lowest percentile. The gap between these two groups reduced during the 1970s, but in the 1980s the income of the poorest 1% remained stable in real terms while the income of the richest 1% increased by almost 50%. During the present decade, the gap expanded to such an extent that by 1995 the richest 1% registered an average income of $66,363 PPP adjusted 1985 US dollars, 417 times more than the poorest 1%. This is determined by the 10% loss in real income among the poor combined with a rise registered by the average individual in the richest percentile. These results show that the level of polarization in LAC was already alarming by 1970, but that the gap between the poorest and richest sectors of the population has widened in the course of the past 26 years.

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Income Polari ation in LA 1970-1995

(Yearly PPP Adjusted GDP Per Capita)

	Year					
Subgroup	1970	1975	1980	1985	1990	1995
Poorest 1%	$112	$170	$184	$193	$180	$159
Richest 1%	$40,711	$46,556	$43,685	$54,929	$64,948	$66,363
Income Ratio	363	274	237	285	361	417

** Source: Authors' calculations.*

A better idea about the meaning of these results is obtained by looking at the estimates of the poverty gap of the typical poor person in the world in 1987, 1990, and 1993 as reported in Ravallion and Chen (1997, table 5). According to these authors, when the poverty line equals one dollar-a-day, the average shortfall of the incomes of the poor is around 32% in each of those years, which results in an average income of around $250 PPP adjusted 1985 US dollars per year. By comparing this figure with the results in Table 2, we notice that during the 1980s and 1990s the poorest 1% of the LAC population earned an income of around half the average poor person in the world. If we consider however, that around 33% of the world population is poor according to these standards, the incomes of the poorest of the poor in LAC do not seem particularly low. Following the argument, it seems that the degree of polarization in LAC can be attributed more to the large value of the incomes of the rich than to the low value of the incomes of the poor, and that the high level of inequality in the region is due to the disproportionately high incomes of the top percentile.

In a related work, Londoño and Székely (1997) argued that not only does LAC have the highest inequality level in absolute terms, but that it is much higher than what one expects given the level of development of the region. To assess the magnitude of the "excess" inequality, we estimated a regression by using the original DS data set for the whole world, where the dependant variable is the Gini coefficient and the explanatory variable is the level of PPP adjusted GDP per capita (taken from the *World Penn Tables 1995*)[23]. We applied the observed PPP adjusted GDP per capita to the coefficient and constant of the regression to produce an estimate of the amount of inequality that would be expected, given the level of development. According to our results (see Table A2) the excess inequality fluctuates between 11.4 and 14.7 points of the Gini, and in 1995 LAC registered a Gini coefficient that is 25% higher than what one would expect given its GDP per capita.

III an es in Poverty in LA

This section focuses on the changes taking place at the lower tail of the LAC income distribution during

[23]The estimates were obtained by using random effects to account for the fact that the observations are not independent but grouped by country and year. Thus, the residuals are robust.

1970-1995. As in the previous section, we first discuss some methodological issues and then engage in a description of the trends.

et odolo ical Problems in t e easurement o Poverty

Fortunately, in the case of poverty measurement there are no aggregation problems, because the number of poor for a region can be obtained simply by adding up the number of individuals below a poverty line in each country, without having to make decisions on how they are summed up. Perhaps this is the reason why in contrast to the literature on inequality measurement, there are some works estimating the magnitude of poverty in LAC, although most of them concentrate on the 1980s.

Rather than compiling poverty estimates from other works (we do this Appendix B), we will use a common methodology to measure poverty in each of the countries for which "good quality" data are available. This guarantees that there is a considerable level of comparability across estimates.

There are at least four decisions we must take before engaging in the computation of a LAC index. First, it is necessary to choose a poverty line; second, we need to deal with the problems of differences in under-reporting and choose a welfare indicator; third, an equivalence scale has to be selected; and fourth, we need to choose an estimation method that allows us to measure poverty when only data aggregated by quintiles are available.

Regarding the definition of a poverty line, the topic has been addressed in a large number of works and we will not engage in a detailed discussion here[24]. For the purposes of this work, we will follow most of the literature and use two definitions of poverty line: a 1985 PPP adjusted "dollar-a-day" line to measure extreme poverty, and $2 1985 PPP adjusted dollars per head per day for moderate poverty. The definitions are based on the work by Ravallion, Datt, Van de Walle, and Chan (1991), who found that the dollar-a-day corresponded to the "typical" poverty line in a set of poor countries, and argued that setting this standard allows for the comparison of poverty rates internationally. This methodology has the advantage of allowing for cross-country comparisons, but it should

[24] See Ravallion (1994) and Lipton and Ravallion (1995) for recent discussions of the general issues, and Mejía and Vos (1997) for the problem of defining a common poverty line for Latin America. Among the studies that have attempted to measure poverty in LAC, there are two clear tendencies. On the one hand, Altimir (1982, 1994a, 1994b) and Cepal (1994, 1995, 1996) have used country-specific poverty lines under the argument that there are significant differences in consumption patterns across countries and through time that make it difficult to establish a common criteria. Although this type of poverty line has the advantage of taking into account country characteristics and the stage of development, the main drawback for our purposes is that the objective of such a poverty line is not to compare poverty levels across countries. To this we should add that Ravallion, Datt, Van de Walle, and Chan (1991) found that the elasticity of the poverty line with respect to average income is very low, so it is unlikely that changes in consumption patterns through time will significantly modify the value of country-specific lines.

On the other hand, there is a long list of works that focus on producing internationally comparable estimates for LAC and other regions in the world (see World Bank (1990, 1992), Psacharopoulos, et.al. (1993), Fizbein and Psacharopoulos (1995), Morley (1992), Ahluwalia, et.al. (1979), Chen, et.al. (1994), Bruno, et.al. (1995), Mejía and Vos (1997), Ravallion, Datt and Van de Walle (1991), and Ravallion and Chen (1997)). Kanbur (1991) presents a more detailed discussion on the advantages of using this method, rather than country-specific poverty lines, when the objective is to compare poverty rates across countries.

be borne in mind that its application may leave out some of the poor that according to country characteristics should be classified as such. It should also be noted that LAC country-specific poverty lines systematically yield greater poverty estimates than those obtained with this method (see Appendix B).

As we mentioned in the first section, one of the main problems with information gathered from household surveys is that there are sometimes differences between the incomes and expenditures reported in a household survey, and their counterpart in the National Accounts. Normally, the differences are attributed to under-reporting in the surveys, but unfortunately there is no way to satisfactorily correct for this problem[25]. The two main alternatives used among studies for LAC have been to assume either that under-reporting is a function of the type of income that individuals receive (see Altimir (1987) and CEPAL (1994, 1995, 1996)), or that under-reporting is evenly distributed among the population (as in Psacharopoulos, et.al. (1993)). Given the restrictions imposed by our data, we use the latter.

The problem of under reporting is closely linked to the selection of a welfare indicator because the "correction" applied to household survey data usually takes either the income or consumption from National Accounts as a reference point. There are several well-known arguments suggesting that poverty should be measured by using consumption rather than income. For instance, consumption provides a better idea about the access to a bundle of goods because it can be smoothed by savings, or more importantly, using consumption is more adequate because utility is normally regarded as the benefit from the consumption of goods. Most studies that compare poverty rates internationally follow this approach[26]. Following standard practice, therefore, we will compute poverty estimates by using PPP adjusted private consumption per capita as a reference[27].

This is an important choice because very different and even opposite conclusions about the direction and magnitude of a change in poverty can be obtained if, for instance, we use incomes reported in National Accounts (this has been the alternative followed by Psacharopoulos, et.al. (1993) and Mejía and Vos (1997) for a set of LAC countries). The differences might be even larger when examining changes in poverty during periods of macroeconomic instability, as is our case here, because if a currency devalues, the income from National Accounts may rise due to an increase in exports, while consumption levels could fall due to the reduction in real wages implied by the shock. This is a case where there will be large differences in the trends depending on the choice of the welfare indicator.

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[25] This problem has already been discussed in more detail by Altimir (1987), Psacharopoulos, et.al. (1993), Fizbein and Psacharopoulos (1995), and Mejía and Vos (1997). An extreme case is Mexico, where Lustig and Székely (1997) have found that the incomes reported in the household surveys was of 2.96, 2.21, 2.01, and 1.92 times that in the National Accounts, in 1984, 1989, 1992 and 1994, respectively.

[26] Some examples are the works by Psacharopoulos, et.al. (1993), Ravallion, Datt, Van de Walle and Chan (1991), Ravallion and Chen (1997), and Chen et.al. (1994).

[27] To construct this variable we used the same deflators and adjustment factors used in the *World Penn Tables 1995*.

Since poverty has to be measured on an individual basis, it is also necessary to determine the share of household income that each person inhabiting the unit receives. Due to the lack of more detailed data we will simply assume that income is divided in equal proportions among household members, and that all households are of the same size. As argued by Lanjow and Ravallion (1996) there may be some economies of scale in consumption, and so the assumption may overestimate poverty among the largest households, which are usually the poorest.

Finally, with regard to the procedure to compute poverty indexes, Datt and Ravallion (1992) suggested some formulae that allow us to compute several poverty measures when only aggregate data are available. The formulae requires only the parameters of the Lorenz Curve, the average income or consumption of the population, and the poverty line, and provides very accurate estimators which do not differ substantially from those obtained from micro data[28]. In Section I we already explained the procedure for obtaining the yearly distribution of income by quintiles for the countries in our sample. By inserting the parameters of each distribution (obtained through the procedure in Villaseñor and Arnold (1989)), the poverty lines, and the PPP adjusted private consumption per capita derived from National Accounts, we obtained an estimate of poverty for each of the 13 countries and for each of the years within the 1970-1995 period. It must be stressed that contrary to the case of the inequality estimates, our poverty results for each year and country do capture changes in the economic cycle because they are calculated by using yearly consumption figures.

e Poverty rends

The results for poverty in LAC for the past 26 years are found in Figure 1 which plots the head count ratio during these years, as well as in Table 3, where we summarize the results for several poverty measures.

[28]We were able to confirm this for a large number of cases for which we had both, the original household survey, and the quintile shares.

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Poverty easures or LA , 1970-1995

	Moderate Poverty				Extreme Poverty				Excess
Year	Head Count Ratio	Poverty Gap	FGT(2) Index	Million of Poor	Head Count Ratio	Poverty Gap	FGT(2) Index	Million of Poor	Poverty in LAC*
1970	43.6	18.7	11.2	117.1	19.2	6.5	4.0	51.4	39.0
1971	41.0	18.2	10.9	112.9	18.2	5.3	3.8	50.1	42.0
1972	38.9	16.9	10.1	109.8	16.2	4.7	3.5	45.6	45.4
1973	37.0	15.8	9.4	107.1	15.5	4.1	3.1	44.8	47.4
1974	34.7	14.7	8.6	103.0	14.2	3.6	3.0	42.1	50.6
1975	36.2	15.5	9.3	110.1	14.8	4.5	3.4	44.9	50.4
1976	34.1	14.3	8.6	106.0	13.4	3.8	3.1	41.8	54.1
1977	32.7	13.6	8.2	104.0	12.6	3.6	3.0	40.2	55.7
1978	32.1	13.8	8.6	104.7	12.5	3.6	3.1	40.7	57.3
1979	30.1	12.6	7.6	100.3	11.4	3.3	2.8	38.2	60.4
1980	27.5	11.1	6.9	93.8	10.5	2.6	2.6	36.0	61.5
1981	26.6	10.7	5.9	92.8	10.2	3.0	2.9	35.7	56.4
1982	23.7	10.2	6.0	84.5	11.2	3.8	2.4	39.9	45.3
1983	28.6	12.4	7.0	104.4	12.8	4.2	2.1	46.8	47.8
1984	29.0	12.2	6.7	108.1	12.2	3.7	1.9	45.5	49.8
1985	28.3	11.3	5.8	107.8	11.4	2.9	1.3	43.3	52.7
1986	25.9	10.0	4.9	100.7	12.0	2.3	1.0	46.8	50.9
1987	29.0	12.2	6.7	115.2	12.6	3.7	2.3	50.0	48.3
1988	32.8	14.2	7.8	132.6	15.3	4.5	2.1	61.9	48.1
1989	34.8	15.6	8.8	143.5	17.0	5.4	2.8	70.2	50.5
1990	35.2	16.4	9.7	147.9	17.4	6.3	3.6	73.1	48.2
1991	33.3	15.5	9.3	142.7	16.1	6.1	3.7	69.2	49.4
1992	33.1	15.5	9.4	144.5	16.0	6.3	4.2	69.7	48.3
1993	34.1	16.0	9.7	151.7	16.6	6.5	3.9	73.9	49.4
1994	33.3	15.7	9.7	150.9	16.4	6.6	4.2	74.4	51.3
1995	33.1	15.4	9.2	152.5	16.2	6.1	3.7	74.5	50.3

Source: Authors' calculations.

*Proportion of the actually observed poverty presented in the first column of the table.

Figure 1 shows that moderate poverty rates fell quite dramatically during the 1970s - from 43.6% to 27.5% - since these were years of both high growth and improvements in income distribution. On the other hand, poverty rose sharply during the second half of the 1980s - reaching a peak of 35.2% by 1990-, which confirms the findings of several studies. Surprisingly, the proportion of moderately poor individuals did not decline during the 1990s recovery; rather, the head count ratio remained at around 33%. The trend followed by the extreme poverty index is very similar.

With respect to absolute numbers (see Table 3), our results show that by 1970 51.4 and 117.1 million individuals were classified respectively as extreme and moderately poor. The figure decreased during the decade,

and by the 1980s, the amount had been reduced by 33% and 20%, respectively[29]. Table 3 also presents the value of the poverty gap and the FGT(2) index.[30] The poverty gap decline by around 60% and 40% means that not only were there fewer extreme and moderately poor individuals during the first decade under study, but that those who remained poor were on average less poor than before. According to our estimates, the value of the FGT(2) index also reduced significantly during these years. The decline in this case was around 33% and 39%, respectively. This means that there was a general and relatively well distributed improvement in welfare among the poor.

It is interesting to note that according to the value of the head count ratio for 1975, the level of extreme poverty is smaller than the estimate obtained by Ahluwalia, et.al. (1979) for a sample of less-developed countries during the same year. In that study, poverty was estimated at around 38% by using a poverty line very similar to the "dollar-a-day" standard[31]. Poverty in Latin America during the 1970s therefore seemed to be much lower than in other developing economies.

As previously mentioned, the 1980s were characterized by sharp increases in poverty. In fact, according to Chen, et.al. (1994), LAC was the only region in the world where poverty increased during that decade. The estimates presented in Table 2 indicate that the number of individuals below the extreme and moderate poverty lines increased from 35.7 and 93.8 million, to 73.1 and 147.9 million, respectively. This represented a rise of around 54 million poor individuals. According to our calculations, the number of extremely poor doubled during the course of this decade, while the moderately poor increased by 60%. With regard to the poverty gap and the FGT(2) index, we found that the poverty measured by each of these two indicators increased by much more than the proportion of poor, in percentage terms[32]. Thus, there is evidence that the welfare losses were concentrated amongst the poorest of the poor.

Our results for the 1980s are somewhat similar to the LAC head count ratio obtained by the World Bank (1992), Ravallion and Chen (1997), and Psacharopoulos, et.al. (1993) - who use similar poverty lines -[33], even though the present work is the only one to derive conclusions using strictly "good quality" data and a constant sample of

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[29]To obtain the absolute number of poor in LAC we assumed that the 83% of the population covered by our sample of 13 countries represents the whole population in the region.

[30]The poverty gap is the average shortfall of the income of the poor with respect to the poverty line, multiplied by the head count ratio. The FGT(2) index corresponds to the index suggested by Foster, et.al. (1984), when the parameter is equal to 2 (it is equivalent to the squared poverty gap). In this last measure, the lowest incomes are given more weight in the measurement.

[31]It should also be noted that the value of the head count index for 1970 is very close to the results obtained by CEPAL (1994). In that case, moderate and extreme poverty were estimated at 40% and 19% of the population, respectively. The main difference with our work is that the CEPAL study uses country-specific poverty lines and adjusts the household data by taking income reported in National Accounts as reference.

[32]The value of the poverty gap and FGT(2) indices increased by 47% and 42%, as compared to the 28% rise in the head count.

[33]The first two studies estimated poverty at 22.4% in 1985 and 25.5% in 1990, while in the second moderate poverty was found to be 26% and 31% at the beginning and end of the 1980s, respectively.

countries.

In contrast, the estimates differ substantially from the results in Altimir (1994a) and CEPAL (1994, 1996), who report head count ratios of more than 35% in 1980 and 1985, and of around 41% for the 1990s. These studies use country-specific poverty lines, so the comparability of the country estimates used to compute the aggregate is not guaranteed. Also, they use a mix of "good" and "bad" quality data to obtain their information, as they include countries with only urban observations.

With regard to results for the 1980s for other regions, Ravallion, Datt, and Van de Walle (1991), Chen, et.al. (1994), and Ravallion and Chen (1997) computed a world head count ratio and found that 30% and 30.7% of the world population in developing countries was below the extreme poverty line in 1985 and 1987, which is much larger than the 12.6% we obtained for LAC (see Table 2). In the last two works, the authors also present results by region, and find that the LAC region was only poorer than Eastern Europe-Central Asia and the Middle East-North African countries. Our estimates confirm this conclusion, although the magnitude of the indices reported here are not the same as those presented in the other studies.

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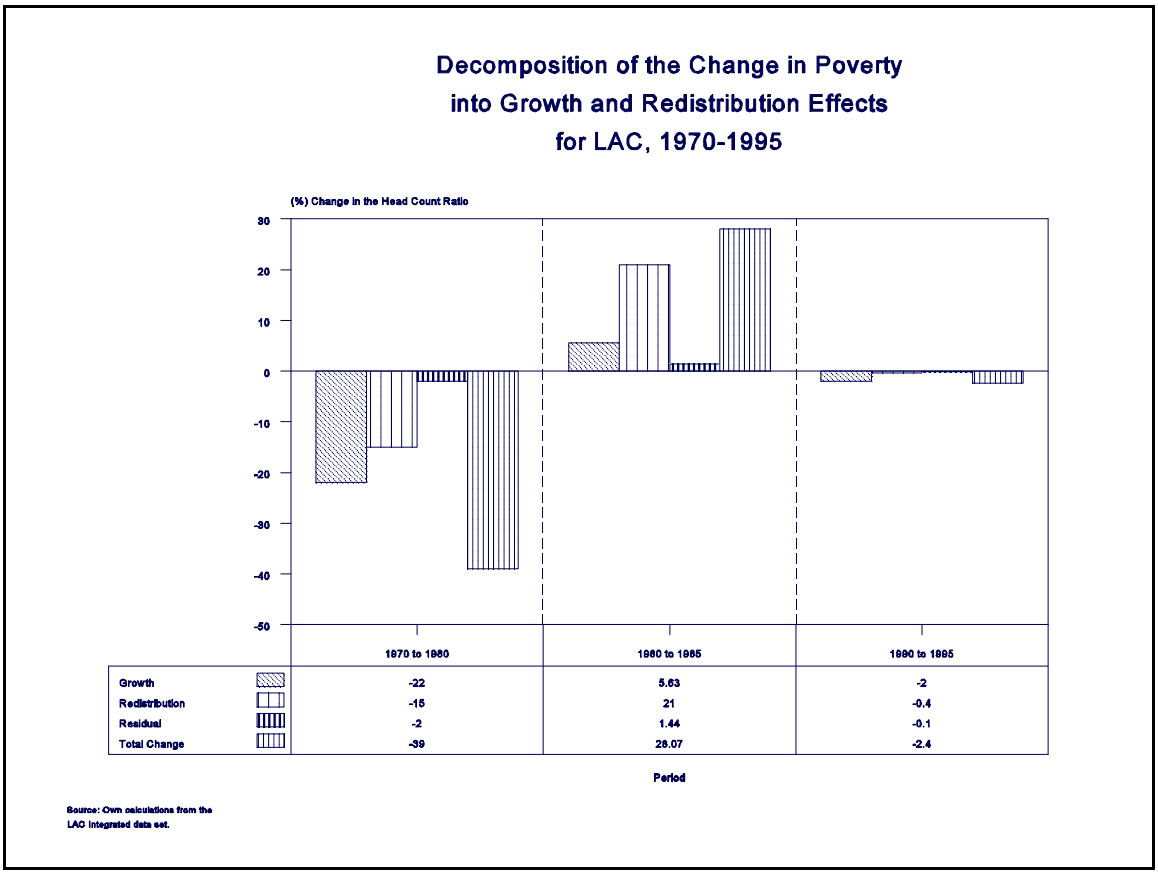

During the 1990s, LAC did not make substantial progress in reducing poverty in spite of recovering positive growth rates. According to our estimates, the number of extreme and moderately poor has even increased by 1.5 and five million individuals respectively, during the first half of the decade. It can be seen in Table 3 that the poverty gap and the FGT(2) index at the higher poverty line declined slightly, indicating that there was some improvement in the conditions of the poor. However, the FGT(2) index for extreme poverty continued to increase during this period. This leads us to think that the poorest of the poor have not benefitted from the recovery process, and that contrary to expectation their condition may have even worsened[34].

In order to assess the impact on poverty of the changes in private consumption and the changes in inequality, we followed the procedure suggested by Datt and Ravallion (1992) to decompose changes in poverty into growth and distribution effects. Figure 2 presents the results of the decomposition, which was obtained by

[34]There are not many studies that measure poverty in LAC for the 1990s. Among the few examples are the works by CEPAL (1996), who estimated a head count ratio of 39% for 1994, and Ravallion and Chen (1997), who obtained an extreme poverty measure of 23.5 for 1993. Neither of these estimates coincide with ours. Regarding world-wide estimates, Ravallion and Chen (1997) report that extreme poverty in the world was 29.4% in 1993, and that the ranking of LAC with respect to other regions of the world did not change with respect to the 1980s.

computing each component for every country and for every year, and adding them up to obtain the LAC estimate.

As expected, the figure shows large differences over time. Poverty during the 1970s declined due to the high growth rates (which would have reduced poverty by around 22% on their own) and due to the progress in income distribution. The 1980s are quite different, and it is interesting to see that most of the raise in poverty is attributed to changes in inequality, and not only to the economic stagnation observed during these years, as is normally thought.

Perhaps the most striking result is that during the 1990s poverty has not declined due to the low impact of growth on poverty reduction, and to the lack of distributive progress. This last result seems surprising because the GDP per capita in the region increased by almost 6% in real terms between 1990 and 1995. The explanation for these phenomena is that we are using private consumption per capita for computing the poverty indexes, rather than GDP per capita, and the latter grew by less than 4% during the course of these years. Our estimates therefore reveal that consumption has been less responsive than income during the 1990s. Perhaps the reason is that growth in LAC has been more concentrated in export-oriented sectors, which may have a larger impact on GDP estimates than on private consumption.

e elation et een Poverty and Inequality

In a recent work, Ravallion (1997) addressed the question of whether the poor face the same prospects of escaping poverty in developing countries with high inequality as in those with low inequality, and arrived to a conclusion that helps us to interpret our results. The author found evidence suggesting the rate of poverty reduction to be systematically lower in high-inequality countries because the growth elasticity of poverty reduces as the distribution worsens. Intuitively, the argument is that even if growth occurs in the context of a constant distribution - i.e. all individuals raise their income by the same proportion -, as seemed to be the case in the 1990s, the poor will receive less in absolute terms. In the extreme case of a country where all income is concentrated in the hands of one individual, neutral economic growth would have no effect whatsoever . However, if income is distributed evenly among the population, the rate of poverty reduction will be maximized by growth.

To explore the relevance of the latter argument for LAC, we estimate the elasticity of poverty to growth by using the formulae derived by Kakwani (1993b). According to our results, by 1982 - when the Gini index reached its lowest level -, the elasticity was 1.9%, meaning that a 1% increase in per capita consumption would yield almost a 2% reduction in poverty as measured by the FGT(2) index. During the 1990s the elasticity was reduced to 1.3, indicating that poverty was less responsive to growth. When we look more closely at the variables, we notice that private consumption per capita was very similar at the beginning of the 1980s and during the first five years of the 1990s. Therefore, the sensitivity of poverty is lower because resources are now more concentrated.

So, it seems that inequality levels in LAC are so high that poverty will not decline substantially as a natural

outcome of growth, even in periods of economic recovery. In an attempt to assess the effect of inequality on the possibility of alleviating poverty in the future, we follow a procedure similar to the method we used in Section I for estimating the "excess" inequality in the region. In this case we use the original Deininger-Squire data set for all the countries in the world for which information is available, and performed five regressions where the dependent variable was each of the quintile shares, and the independent variable was GDP per capita. By using the coefficients (which were estimated with random effects), we determine the expected quintile shares given the PPP adjusted GDP per capita of the region. With this information we obtained the expected Lorenz Curve and recompute the poverty estimates using the actually observed private consumption per capita. The results are reported in the last column of Table 3.

According to our estimates, LAC registered an "excess" of poverty of around 50% during the 1990s. In other words, if income distribution corresponded to what one would expect given the level of development of the region, the number of poor would be half the number actually observed. The "excess" poverty is now higher than during the first years of the 1970s (see Table 3), and this implies that LAC has not made substantial progress in poverty reduction, not only because of the lack of economic growth in the 1980s, but also due to its incapacity to improve its income distribution throughout the past 16 years.

By looking at the previous result, it seems quite obvious that poverty in LAC is to a large extent a distributive problem. This is an interesting finding because it implies the policy instruments to reduce poverty must be different from those used in other regions where poverty is more associated with insufficiency of resources (this is probably the case in Africa and South Asia). In fact, if instead of having the income distribution actually observed during the 1990s, LAC had the inequality of any other region in the world, poverty would be much lower. Figure 3 presents a simulation where poverty in LAC is computed first by using its own distribution, and then by substituting it for the average quintile shares for the 1990s from Africa, East Asia, Eastern Europe, OECD countries, and South Asia[35].

According to Figure 3, the proportion of poor individuals would reduce dramatically if income was distributed in a more egalitarian way. For instance, if LAC had the distribution observed in Eastern Europe or South Asia, poverty would be practically eliminated (only around 3% of the population would be below the moderate poverty line)[36]. In a recent work, Chen and Ravallion (1997) estimated poverty in the Middle East and North Africa in 1993 at 4.1%, while it was found to be at 3.5% in Eastern Europe and Central Asia. Thus, if LAC had a distribution of income similar to that observed in those regions, it would have the lowest poverty rates in the developing world. Similarly, if any other region in the world had the LAC distribution, the proportion of the population below the poverty line would increase dramatically.

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[35]The regional average quintile shares were calculated from the DS data set.

[36]The purpose of the exercise is to illustrate that inequality is perhaps the most important determinant of poverty in the region. The simulations do not account for the possibility that redistributions can have implications for economic growth and are only intended to provide a benchmark for our discussion.

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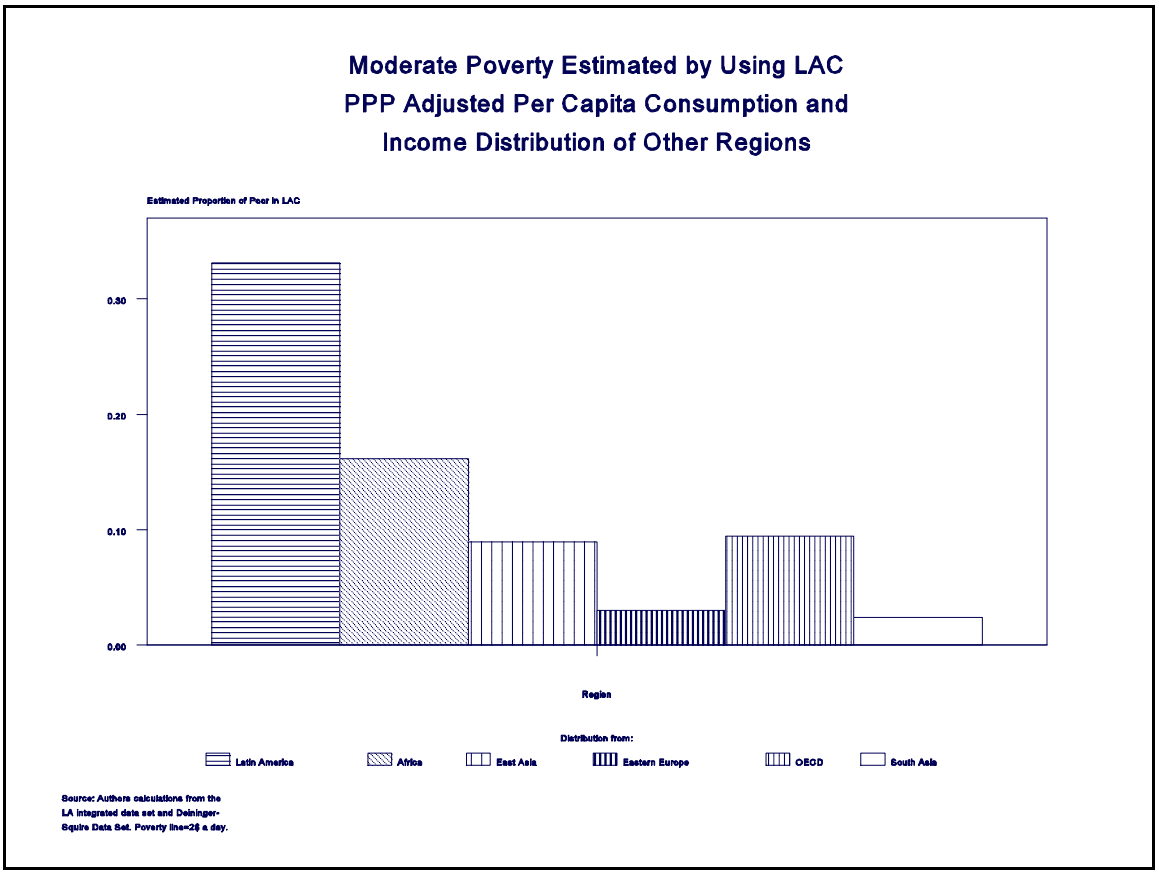

With regard to future prospects, we perform a simulation where we estimate the number of years with 6% growth (similar to the rate observed during the 1970s) in per capita consumption that would be necessary to eradicate poverty in each country, assuming that the distribution of income did not change[37]. We find that in the 1980s, it would have taken an average of 18.5 years of growth to eliminate poverty, while by 1995, it would take 19.5 years to achieve the same objective under the same circumstances. The reason why poverty increased in reality is that the region did not grow at the simulated rates, and that income distribution was far from remaining unaltered. In conclusion, the 1980s decade was lost for the poor, and the possibilities of improving their standard of living in the near future does not seem to have been enhanced during the first half of the 1990s.

I om arisons et een ountries

Although aggregate trends provide a good idea about the evolution of poverty and inequality in the region

[37]See Székely (1995a) for details on how to perform the estimation.

as a whole, they inevitably hide specific country experiences. This section compares the levels and changes in these welfare indicators across the 13 countries in our sample. Recalling our discussion in Section I, some advantages of this work with respect to related studies are that we present the first comparative study for LAC for the 1990s, and that we use the most complete comparable data base available for the region.

A detailed description of the data and of the levels and changes in poverty and inequality by country, is presented in Appendix B, where we also compare our estimates with those obtained by other authors.

A Loo at t e i erences in Levels

Figure 4 provides a first impression about the differences between countries, as we have drawn the LAC Lorenz Curve for 1995 and positioned each country according to the level of PPP adjusted private consumption per capita in the same year.

The results mean that the average individual in The Bahamas and Venezuela would be positioned above the 8th decile if he or she were ranked according to its position within LAC rather than with respect to the country of origin. The average Honduran, however, is among the poorest 30% of the population of the region. The average of Mexico, Chile, Brazil, Colombia, and Costa Rica is between the 6th and 8th deciles, while the average of Panama, Peru, the Dominican Republic, Jamaica, and Guatemala is situated among the 4th and 6th deciles. These results show that there are large differences between countries, but even so these discrepancies only account for around 10% of the total inequality in the region.

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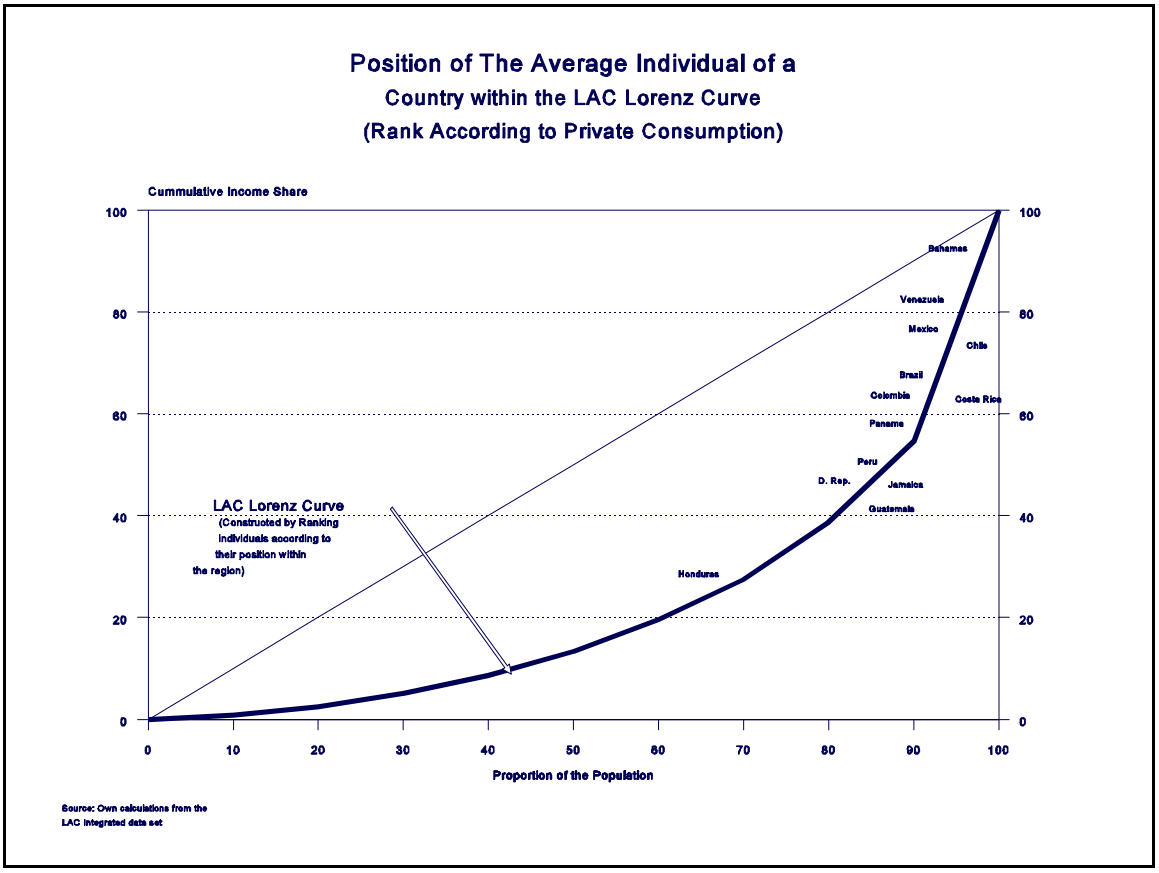

Given these discrepancies, we would expect poverty and inequality levels to also differ across countries. To verify this, we ranked each of the LAC countries in our sample according to three variables: PPP adjusted private consumption per capita, the Gini index, and the proportion of poor individuals. Tables 4a, 4b, and 4c present the results[38].

able a

[38] Since we do not have income distribution indicators for all the countries for the same years, we divide the information and present only the results for 1970, 1980, 1989, and the 1990s. For 1970 and 1980 we choose the consumption, Gini, and poverty indices closest to these years (in the case of Honduras and Mexico we use the information for 1968 as a proxy for 1970). We present the estimates for 1989 instead of 1990, because as noted in Section I, data is available for eleven of the 13 countries in the sample for this year. For the 1990s, we use the observation for the year closest to 1995.

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	1970		1980		1989		1990s
1 Honduras	794	1 Honduras	951	1 Honduras	870	1 Honduras	892
2 Dominican R.	1,026	2 Dominican R.	1,353	2 Panama	1,267	2 Panama	1,341
3 Panama	1,238	3 Panama	1,369	3 Peru	1,314	3 Peru	1,419
4 Jamaica	1,397	4 Peru	1,669	4 Jamaica	1,594	4 Jamaica	1,453
5 Colombia	1,398	5 Jamaica	1,689	5 Guatemala	1,604	5 Dominican R.	1,464
6 Brazil	1,458	6 Costa Rica	1,778	6 Dominican R.	1,618	6 Guatemala	1,759
7 Guatemala	1,619	7 Colombia	1,838	7 Costa Rica	1,855	7 Brazil	1,769
8 Costa Rica	1,739	8 Guatemala	2,010	8 Brazil	1,873	8 Colombia	2,057
9 Peru	1,788	9 Chile	2,261	9 Colombia	2,036	9 Costa Rica	2,088
10 Venezuela	1,875	10 Mexico	2,541	10 Chile	2,120	10 Chile	2,659
11 Mexico	2,189	11 Brazil	2,658	11 Mexico	2,703	11 Mexico	2,751
12 Chile	2,207	12 Venezuela	3,779	12 Venezuela	3,305	12 Venezuela	3,718
13 Bahamas	4,558	13 Bahamas	7,210	13 Bahamas	8,311	13 Bahamas	7,427

** Source: Authors' calculations.*

Table 4b

Ordering According to Gini Coefficient

	1970		1980		1989		1990s
1 Honduras	61.8	1 Honduras	61.1	1 Brazil	60.7	1 Brazil	61.4
2 Panama	58.4	2 Brazil	57.1	2 Honduras	59.9	2 Guatemala	59.9
3 Mexico	57.9	3 Chile	53.1	3 Guatemala	59.9	3 Panama	57.4
4 Colombia	57.3	4 Guatemala	49.7	4 Chile	59.0	4 Honduras	56.9
5 Brazil	57.1	5 Colombia	48.8	5 Panama	56.8	5 Chile	56.5
6 Guatemala	49.7	6 Costa Rica	47.5	6 Mexico	53.7	6 Mexico	54.2
7 Peru	48.5	7 Panama	47.5	7 Dominican R.	50.7	7 Dominican R.	51.6
8 Venezuela	48.0	8 Mexico	47.4	8 Colombia	48.3	8 Colombia	48.2
9 Chile	47.4	9 Jamaica	45.6	9 Costa Rica	46.1	9 Venezuela	47.1
10 Bahamas	47.2	10 Venezuela	44.7	10 Venezuela	46.1	10 Costa Rica	46.5
11 Jamaica	45.6	11 Peru	43.0	11 Bahamas	44.5	11 Bahamas	45.0
12 Costa Rica	44.5	12 Bahamas	42.2	12 Peru	43.7	12 Peru	44.9
13 Dominican R.	42.1	13 Dominican R.	42.1	13 Jamaica	43.3	13 Jamaica	37.9

** Source: Authors' calculations.*

Table 4c

Ordering According to Proportion of Moderately Poor

	1970		1980		1989		1990s
1 Honduras	70.3	1 Honduras	65.5	1 Honduras	69.2	1 Honduras	65.6
2 Colombia	53.5	2 Panama	40.6	2 Panama	50.0	2 Panama	48.4
3 Panama	52.7	3 Dominican R.	37.3	3 Brazil	45.4	3 Brazil	43.5
4 Dominican R.	49.9	4 Costa Rica	29.6	4 Guatemala	45.0	4 Guatemala	42.5
5 Brazil	49.4	5 Jamaica	29.1	5 Peru	37.6	5 Dominican R.	39.5
6 Mexico	40.5	6 Brazil	28.2	6 Dominican R.	35.7	6 Peru	35.0
7 Jamaica	36.3	7 Colombia	27.9	7 Chile	31.3	7 Jamaica	25.1
8 Peru	29.9	8 Guatemala	26.0	8 Jamaica	28.9	8 Colombia	23.8
9 Costa Rica	26.0	9 Peru	24.2	9 Costa Rica	25.3	9 Chile	23.5
10 Guatemala	26.0	10 Chile	23.5	10 Colombia	23.5	10 Mexico	22.3
11 Venezuela	24.0	11 Mexico	18.8	11 Mexico	21.4	11 Costa Rica	22.1
12 Chile	20.6	12 Venezuela	11.1	12 Venezuela	14.3	12 Venezuela	13.4
13 Bahamas	10.3	13 Bahamas	3.3	13 Bahamas	6.8	13 Bahamas	8.9

** Source: Authors' calculations.*

Table 4a ranks the countries according to PPP adjusted private consumption per capita, and shows some interesting features. First, throughout the 26 years, Honduras and Panama are the countries with the lowest consumption. Similarly, The Bahamas, Venezuela (with the exception of 1970), Mexico (with the exception of 1980), and Chile, are almost consistently ranked as the richest countries. The position of the remaining countries is more variable. For instance, Peru started out in a relatively good position, but its consumption levels reduced considerably with respect to the other countries, to the extent that by the 1990s it occupied one of the lowest positions. The Dominican Republic, Colombia, and Costa Rica improved their position between 1980 and the 1990s, while Brazil, Guatemala, and Jamaica lost ground during the same years. Second, when comparing the ranking for 1970 and 1995, we observe that there are not many changes with regard to the relative ranking of most countries throughout the course of 26 years. The main exceptions are Peru, whose position declined significantly, and Colombia and the Dominican Republic whose position improved.

Table 4b shows the rankings of the Gini coefficient. Honduras and Brazil are systematically among the countries with higher inequality. In contrast, The Bahamas, Jamaica, and Peru (with the exception of 1970) are among the most equal. One interesting feature, is that most of the changes in ranking take place between 1970 and 1980. During these years, Panama, Mexico, Peru, and Venezuela improved their relative position, while Brazil, Guatemala, Chile and Costa Rica became relatively more unequal. Therefore, the years of high growth were associated with contrasting experiences with regard to the magnitude of the change in income distribution.

During the 1980s crises years, the main changes were the relative improvement of Costa Rica and Jamaica, and that the Dominican Republic, Mexico, Panama, and Guatemala lost some ground.

Between 1989 and the 1990s there were hardly any movements in ranking across countries. Perhaps the only significant changes were the relative deterioration of the distribution in Panama, and the evening out of Honduras.

These results are interesting in the context of the entire period because they corroborate that even though the 1970s and 1990s were both characterized by favorable macroeconomic conditions, the 1990s differ markedly by the lack of improvement in income distribution across all countries.

Table 4b also shows there are large differences in inequality between countries, and the differences have widened between 1970 and the 1990s. During the 1990s, the country with the highest inequality, Brazil, registered a Gini index more than 60% greater than the country with the lowest inequality, Jamaica. However, the inequality level of all the countries in our sample (except for Jamaica), is high by international standards.

Table 4c presents the rankings according to poverty rates. The relation between this and the previous two tables is that poverty in any population depends on the amount of resources available in the economy, and on the way in which such resources are distributed. If poverty depended solely on the insufficiency of resource in an economy, the rankings in Tables 4a and 4c would be identical, but since this is not the case, we observe several reversals.

For instance, we find that systematically, the country where the ranking differs the most, is Brazil. This country is ranked relatively highly with respect to consumption levels, but it presents large poverty rates. The connection between these two results is Table 4b, where Brazil has the highest inequality (a similar situation arises in Mexico during 1970). In contrast, since 1980 Peru and Jamaica are ranked better in terms of poverty than in terms of consumption, in which case, the explanation is the relatively low inequality.

Another way of looking at the differences in poverty levels, is the geographic distribution of the poor. Table 5 presents these indicators for 1970 and 1995. Brazil, Costa Rica, Guatemala, Honduras, and Venezuela have increased their share of extreme poverty in the region, while Colombia and Mexico reduced their share by more than three percentage points. In the case of moderate poverty, the largest shifts are in Brazil, Honduras, Guatemala, and Peru, which increased their proportion, and in Colombia and Mexico, which reduced their proportions.

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Country	Distribution of Total Population		Distribution of Extremely Poor		Distribution of Moderately Poor	
	1970	1995	1970	1995	1970	1995
Bahamas	0.06	0.06	0.02	0.03	0.02	0.02
Brazil	35.72	35.42	44.39	49.81	40.43	46.05
Chile	3.54	3.13	1.21	0.60	1.92	2.00
Colombia	7.96	7.68	7.47	3.21	9.76	5.03
Costa Rica	0.64	0.72	0.11	0.34	0.38	0.50
Dominican R.	1.65	1.70	1.70	1.24	1.88	1.90
Guatemala	1.96	2.19	1.02	3.31	1.16	2.96
Honduras	0.97	1.16	2.46	2.97	1.56	2.44
Jamaica	0.70	0.58	0.53	0.13	0.58	0.43
Mexico	18.04	19.31	15.10	12.87	16.75	13.21

Panama	0.56	0.57	0.93	0.91	0.68	0.80
Peru	4.92	5.12	3.58	3.23	3.37	5.13
Venezuela	3.95	4.59	2.14	2.24	2.17	1.88
Other Countries	19.34	17.77	19.34	19.12	19.34	17.65

* Source: Authors' calculations.

If every country had the same poverty rate, the distribution of the poor would equal the distribution of the total population. In order to identify countries contributing more than proportionally to the number of poor in the region, we include the distribution of the whole population in the table. When we compare the distribution of the poor versus the proportion of population, we find, not surprisingly, that Honduras, Panama, and Brazil contribute more than proportionally to moderate and extreme poverty. The relative contribution to extreme poverty is specially high in Honduras. We find that even though Costa Rica is not one of the countries with high consumption levels, its contribution is very small when compared to the size of its population. The proportion in the remaining countries corresponds roughly to what we predict.

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Given the differences in the levels of poverty and inequality across countries, we expect that the countries in our sample will present considerable disparities regarding the changes in poverty and inequality through time. Figure 5 plots the proportional change in the Gini coefficient from 1980-1990 and 1990-1995, and shows that surprisingly 8 out of the 13 countries analyzed follow a similar trend.

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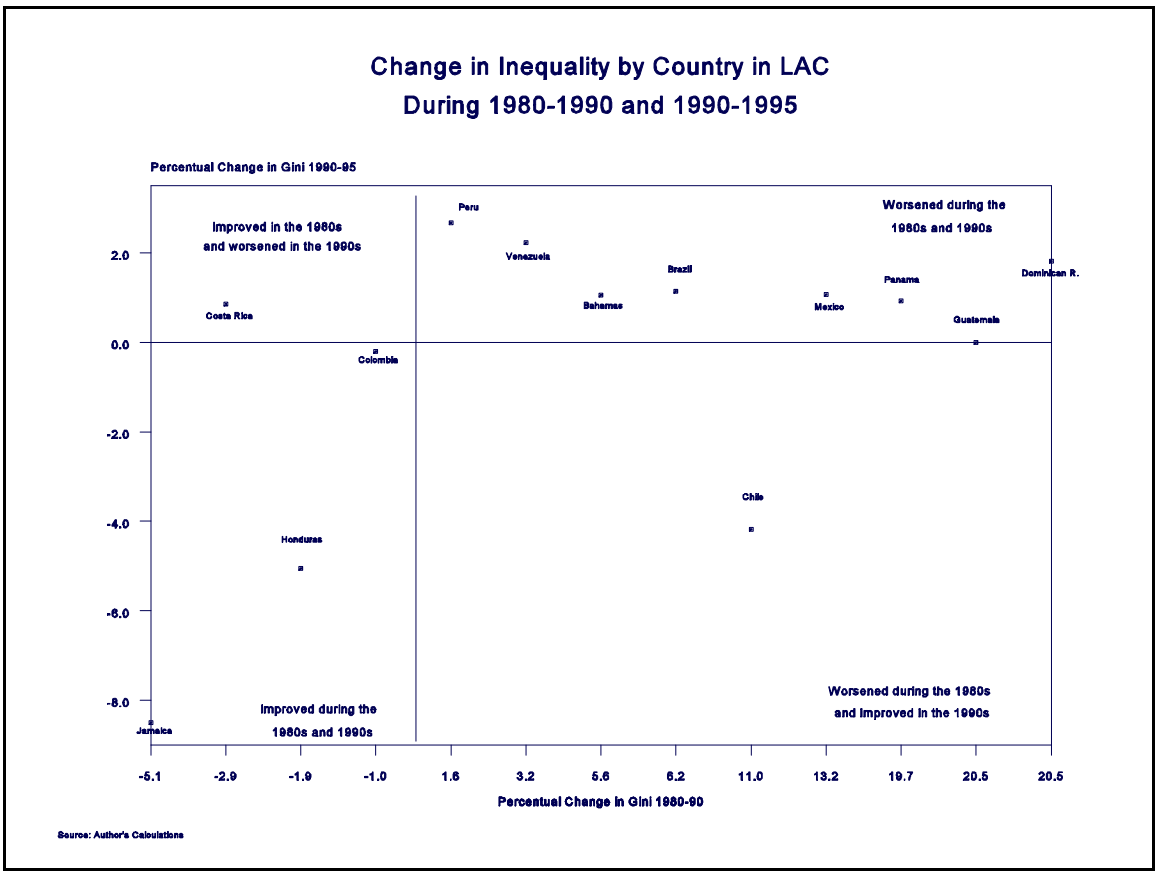

For instance, Jamaica, Honduras and Colombia are the are only countries where income distribution improved during the 1980s and 1990s. Costa Rica is the only country to have improved in the 1980s and worsened in the 1990s. With the exception of Chile, the rest of the countries followed the pattern we observe in Figure 1. One interesting feature is that the only country where the changes correspond to what one expects from the macroeconomic scenario is Chile, where inequality rose in the 1980s crisis years, and recovered in the 1990s[39].

[39]This particular conclusion is not very robust (see Appendix B). The reason is Chile has two types of household surveys: the one we have used to derive our estimates, and the CASEN. Ferreira and Lietchfield (1997) show that if the CASEN is used to compute the inequality index, the distribution of income in Chile appears to be very stable during the 1990s.

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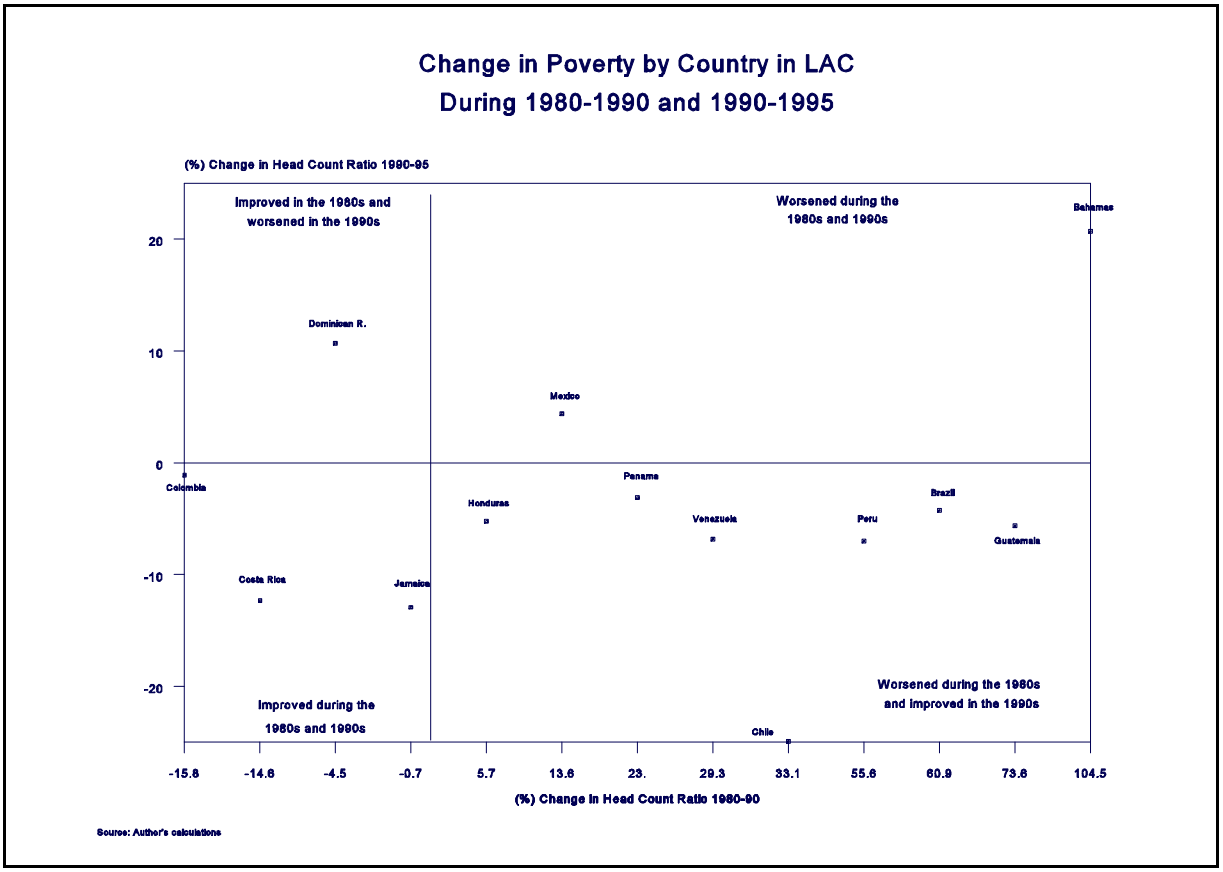

We observe a similar situation with regard to the changes in poverty. Figure 6 plots the proportional change in the head count ratio for the 1980s and the 1990s. Most of the countries registered sharp increases in poverty during the past decade, and have shown some improvement during the 1990s. However, the reductions in poverty during the 1990s are much smaller than we expected.

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Country	Moderate Poverty			Extreme Poverty		
	1970-1980	1980-1990	1990-1995	1970-1980	1980-1990	1990-1995
Latin America	-23.30	54.11	4.56	-15.46	37.14	1.14
Bahamas	-0.01	0.01	0.01	-0.01	0.01	0.01
Brazil	-13.12	34.75	1.24	-10.10	23.75	0.51
Chile	0.38	1.47	-1.04	0.23	0.21	-0.62
Colombia	-4.21	0.67	-0.21	-1.51	0.57	-0.52
Costa Rica	0.19	0.11	0.01	0.23	-0.00	-0.03
Dominican R.	-0.51	1.34	-0.14	-0.61	0.86	-0.20
Guatemala	0.43	2.38	0.33	0.17	1.57	0.20
Honduras	0.52	0.97	0.40	0.21	0.49	0.24
Jamaica	0.10	-0.12	-0.01	0.01	-0.15	-0.03
Mexico	-2.23	-1.25	4.00	-0.12	1.49	0.42
Panama	-0.00	0.49	-0.07	-0.16	0.41	-0.06
Peru	1.41	3.18	-0.70	-0.33	0.86	0.02
Venezuela	-0.88	1.10	0.10	-0.14	0.72	-0.01
Other Countries	-5.37	9.00	0.63	-3.32	6.36	1.21

** Source: Authors' calculations.*

According to the results, poverty only reduced in the 1980s and 1990s in Costa Rica and Jamaica, and only worsened in the same periods in Mexico and The Bahamas. The Dominican Republic and Colombia appear to be the only cases where the head count declined in the 1980s and increased in the 1990s.

The most interesting feature of the previous two figures is that although there are some differences between countries, the similarities appear remarkable, and the countries that do not conform to the trends shown in Figure 1 seem to be the exception rather than the rule. Therefore, it does make sense to discuss the aggregate trends in poverty and inequality in LAC because the aggregate picture provides a good description of the changes in welfare experienced by 83% of the population of the region.

In order to more closely examine the changes in poverty, we decomposed the change in the absolute number of poor individuals in the region, by country and decade. Table 6 presents the results. According to our estimates, moderate and extreme poverty was reduced by 23.3 and 15.46 million individuals, respectively, in the 1970s. These reductions are mainly attributable to the decline in the number of poor in Brazil, Colombia, and Mexico. The picture for the 1980s is quite different because there were 54.11 million additional individuals in poverty, 34.75 of which were located in Brazil, and most of the remaining additional poor were in Chile, Guatemala, Peru, the Dominican Republic, and Venezuela. In the 1990s, there was a rise in the number of moderate and extremely poor individuals. Of the additional 4.56 million moderately poor, four million were in Mexico.

Even though almost all the additional poor individuals in the 1990s were concentrated in a single country, none of the countries in our sample registered a significant reduction in the number of poor. Therefore, our conclusion about the lack of considerable poverty reduction during the 1990s recovery years seems to be well-founded.

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The objective of this work has been to document the changes in aggregate poverty and inequality in LAC during the past 26 years. Our contributions to this field of study are that we compile the largest number of comparable observations on income distribution for the 1970-1995 period, and that rather than only looking at specific country experiences, we focus on aggregate trends. The expanded data base we use includes observations for 13 countries, and covers 83% of the LAC population.

With regard to inequality, we produce some evidence that confirms that this is the region of the world where income is more unequally distributed. According to our estimates, aggregate inequality reduced significantly during the 1970s, deteriorated sharply during the 1980s, and has remained around the level registered in 1990 during the present decade. The reason why there has not been significant improvement during the present decade is that the individuals located at the lower tail of the distribution do not seem to have benefited from growth to the same extent as other sectors of the population.

Despite the fact that the 1970s and the first half of the 1990s had a stable macroeconomic environment in common, it is surprising that while income distribution and poverty were reducing sharply in the first decade, the 1990s did not show distributive progress. One of the most striking results is that inequality levels within countries have been changing considerably even during short time periods, and that the differences between countries are relatively unimportant and stable as compared to within-country inequalities. This regional pattern is not in line with the recently established "stylized fact of development" that argues that income distribution within countries is very stable and relatively unimportant, as compared to the differences between countries.

One way of aggregating the information on inequality, is to construct a LAC Lorenz Curve by ranking individuals according to their position within the region rather than within their country of origin. We construct a LAC Lorenz Curve for several years and were able to explore the differences at the two tails of the distribution. We find that the richest 1% of the LAC population registers consumption levels 417 times higher than the poorest 1%. This reveals the extent to which the distribution is polarized in the region.

LAC has a very high degree of inequality in absolute terms. After comparing the level actually observed with the inequality we expect given the level of development of the region, we find that there is approximately 25% "excess" inequality, and that such "excess" has been increasing during the past 26 years.

The changes in poverty during recent years are not encouraging either. The 1970s were characterized by

large reductions in the number and proportion of poor, while the 1980s showed the opposite trend with poverty rates peaking by 1990 and the number of poor increasing in more than 54 million individuals. During the 1990s, no substantial improvement has been registered, and moreover, the number of poor increased by more than four million.

According to our calculations, the lack of progress in poverty reduction is due to the persistently high inequality levels. We estimate that in the hypothetical case of having no "excess" inequality, the proportion of poor in LAC would be reduced by half. Similarly, if LAC had a distribution similar to other developing countries, it would be the developing region with the lowest poverty rates.

One advantage of the expanded data set we use is that it allows for various comparisons between countries. We find that even though there are large differences in levels across the 13 countries included in our sample, inequality and poverty in most of them followed similar trends in the 1980s and 1990s, than the aggregate indicators. In fact, Chile appears to be the only country where, as expected, poverty and inequality increased during the 1980s and decreased during the 1990s.

During the first years of this decade, most countries have made some progress in reducing the proportion of poor individuals. However, the absolute number of poor continued to raise, although slightly, in several cases. The only exception is Mexico, where four million additional individuals have become poor during the past six years.

The distributive problem in LAC is crucial. Achieving macro economic stability is one of the necessary ingredients to improve the welfare level of the population, yet if the structure of the economies remains unchanged, it will be increasingly difficult to translate economic growth into welfare improvements for the whole population.

Appendix A, Table A1: Data Sources

Country	Source	Years	# Surveys
Bahamas	Deininger-Squire (1996)	1970,1973,1975,1979, 1986	
		1988, 1989, 1991, 1992, 1993	10
Brazil	Deininger-Squire (1996)	1970, 1972, 1976, 1979, 1980, 1981	
	Deininger-Squire (1996)	1982, 1983, 1985, 1986, 1987, 1989	
	PNAD	1990, 1992, 1993, 1995	16
Chile	Deininger-Squire (1996)	1971, 1980, 1989, 1994	
	Encuesta Nacional de Empleo	1990, 1991, 1992, 1993	8
Colombia	Deininger-Squire (1996)	1970, 1971, 1972, 1974, 1978	
		1988, 1991	
	Londoño (1996)	1993	8
Costa Rica	Deininger-Squire (1996)	1970, 1971, 1977, 1979, 1981	
		1982, 1983, 1986, 1989	
	Encuesta de Hogares de Propósitos Múltiples	1990, 1991, 1992, 1993, 1994, 1995	15
Dominican Republic	Deininger-Squire (1996)	1984, 1989	
	Encuesta de Ingreso-Consumo	1986	
	Encuesta de Ingresos y Gastos	1992	4
Guatemala	Deininger-Squire (1996)	1979, 1987, 1989	3
Honduras	Deininger-Squire (1996)	1992	
	Encuesta Permanente de Hogares	1989, 1990, 1994, 1995	5
Jamaica	Deininger-Squire (1996)	1975, 1988, 1989, 1990	
		1991, 1992, 1993	7
Mexico	Deininger-Squire (1996)	1977, 1984, 1989	
	Encuesta Nacional de Ingreso-Gasto de los Hogares	1992, 1994	5
Panama	Deininger-Squire (1996)	1970, 1979, 1980, 1989	
	Cepal, Serie de Distribución del Ingreso num. 16	1986	6
	Encuesta de Hogares	1991	
Peru	Cepal, Serie de Distribución del Ingreso #8, 1989	1970, 1973	
	Estudio de Medición de los Niveles de Vida	1986	
	Deininger-Squire (1996)	1994	4
Venezuela	Deininger-Squire (1996)	1970, 1971, 1976, 1977, 1978, 1979	
		1981, 1987, 1989, 1990	
	Encuesta de Hogares por Muestra	1980, 1982, 1983, 1984, 1985, 1986	
		1988, 1991, 1992, 1993, 1994, 1995	22
Total Deininger-Squire			73
Total Other Sources			40
Total			113

Appendix A, Table A2
Indicators of Income Distribution in LAC, 1970-1995

Year	Income Distribution by Quintile in LAC (%) Share of Total Income (Non weighed Average)					Gini Index for LAC			Quintile I to V Ratio			Th	
	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Estimated from LAC Lorenz C*.	Average from 13 Countries	Weighted Avg. 13 Countries	Estimated from LAC Lorenz C*.	Average from 13 Countries	Weighted Avg. 13 Countries	Within Countries	B Co
1970	3.9	7.6	12.7	20.4	55.3	58.0	51.2	55.2	22.9	17.2	17.9	21.0	
1971	3.7	7.6	12.9	20.7	55.0	57.2	50.8	55.0	22.3	17.0	18.5	21.2	
1972	3.8	7.6	13.0	20.7	54.9	57.3	50.5	54.8	21.9	16.5	18.6	21.3	
1973	3.8	7.6	13.2	20.8	54.6	56.8	50.2	54.5	21.3	16.0	18.6	21.1	
1974	3.8	7.6	13.1	20.9	54.6	56.7	50.2	54.1	21.3	15.9	18.6	20.9	
1975	3.8	7.6	12.9	20.9	54.8	56.9	50.4	54.1	21.2	16.0	18.8	20.9	
1976	3.9	7.6	13.0	21.0	54.6	56.8	50.1	54.1	22.0	15.7	19.0	21.0	
1977	3.9	7.8	13.1	20.9	54.3	56.5	49.9	53.9	21.4	15.6	19.0	20.8	
1978	4.0	7.9	13.4	20.9	53.8	56.4	49.4	53.7	22.2	15.0	18.7	20.6	
1979	4.1	8.2	13.3	21.1	53.3	56.3	48.8	53.5	21.4	14.5	18.5	20.4	
1980	4.0	8.1	13.4	21.1	53.4	55.0	49.4	52.5	19.8	14.5	17.1	19.6	
1981	4.0	8.1	13.4	21.2	53.3	54.0	49.1	51.4	18.7	14.4	16.0	18.6	
1982	4.0	8.2	13.5	21.1	53.3	53.8	49.0	51.0	18.0	14.0	14.1	17.3	
1983	4.0	8.1	13.1	20.9	53.9	55.2	49.4	52.9	20.7	14.8	18.6	20.0	
1984	3.8	7.9	12.8	20.5	55.0	56.2	50.6	53.9	20.9	16.7	19.0	20.6	
1985	3.9	7.9	12.9	20.7	54.6	56.2	50.2	54.0	20.2	15.3	17.2	20.3	
1986	3.8	8.0	12.9	20.7	54.7	54.3	50.1	52.4	18.0	15.6	16.2	19.1	
1987	3.7	8.1	12.9	20.5	54.9	55.2	50.5	53.5	19.0	16.3	18.1	20.2	
1988	3.6	8.1	12.7	20.3	55.2	56.6	50.8	54.5	20.8	16.8	19.1	21.2	
1989	3.5	7.8	12.5	20.2	56.0	57.5	51.8	55.5	21.9	18.1	20.4	22.2	
1990	3.5	7.9	12.7	20.2	55.7	58.3	51.6	55.7	22.9	18.1	21.3	22.1	
1991	3.5	8.0	12.9	20.2	55.3	57.6	51.1	55.0	24.0	17.8	21.6	21.9	
1992	3.6	8.1	13.2	20.4	54.6	57.3	50.4	54.7	23.5	17.4	21.6	21.5	
1993	3.7	7.9	12.9	20.3	55.2	58.2	51.3	55.8	24.5	17.8	22.8	22.2	
1994	3.5	7.7	12.8	20.3	55.7	58.3	51.7	56.0	25.1	19.2	23.3	22.6	
1995	3.6	7.7	12.9	20.2	55.6	57.7	51.5	55.8	24.4	18.7	22.5	22.4	

* Estimated from LAC Lorenz Curve, which ranks each individual according to the position within the region (not within the country or origin)

Source: Calculated from Extended data base that includes 13 countries and 82% of the LAC total population

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Aggregate trends inevitably hide specific country experiences. This Appendix presents the estimates for poverty and inequality for each of the 13 countries in our sample[40], and compares them with other estimates[41]. When it is possible, we explain the nature of the differences between our results and those obtained by other authors.

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As already mentioned in the section of "Comparisons Between Countries", The Bahamas registers the highest consumption levels among the countries in our sample. Therefore, it is not surprising that it also presents the lowest poverty rates. Table B1 shows that the proportion of poor individuals is very low by international standards, and even though poverty increased in recent years, the head count ratio remained at very low levels. It is interesting to note that inequality did not increase as sharply as in other countries during the 1980s, and that by the end of that decade there was even a significant decline. During the 1990s the Gini index fluctuated and registered an increase between 1992 and 1993, while poverty levels also increased, mainly due to a 10% decline in PPP adjusted private consumption per capita throughout the first half of the present decade.

Unfortunately, we could not compare our estimates with others because we were not able to find any published work estimating poverty or inequality levels for this country for the years between 1970 and 1995.

[40]See Mejía and Vos (1997) for an inventory of poverty and inequality estimates of other LAC countries not considered in this work.

[41]We draw on the works by Psacharopoulos, et.al. (1993), Mejía and Vos (1997), and Morley (1994), who already summarized the estimates found in some of the published work we were able to find.

[42]The Bahamas is not always defined as a Latin American country. For example, Deininger and Squire (1996) classify it as a high income country, but for the purposes of this work we included it in the LAC region.

Table B1: Social Indicators for The Bahamas, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	47.2	17.6	6.0	4.7	1.0	10	10.3	6.4	5.4	18
1973	44.1	12.5	6.7	7.8	1.5	12	10.1	8.1	9.0	18
1975	52.3	18.5	3.6	0.3	0.8	7	12.0	2.6	0.6	22
1979	42.2	11.1	2.2	0.1	0.0	5	3.3	1.1	0.4	7
1986	44.2	16.0	0.5	1.0	0.8	1	4.6	1.7	0.9	11
1988	39.1	12.0	4.1	1.9	1.1	10	5.8	3.0	2.1	14
1989	44.5	15.7	3.0	1.7	1.2	8	6.8	6.8	9.4	17
1991	40.9	11.3	6.5	3.4	1.6	17	8.1	6.0	10.0	21
1992	40.8	13.4	7.2	3.5	1.7	19	8.9	6.0	10.0	24
1993	45.0	13.2	7.6	4.4	1.9	20	8.9	8.0	10.0	24

**Source: Authors' calculations.*

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Brazil is one of the countries with greater data availability because comparable household surveys have been produced consistently between 1970 and 1995. Most of the data for this country are from the *Pesquisa Nacional por Amostra de Domicílios*, and so there is a high degree of comparability across observations. Table B2 summarizes the poverty and inequality estimates we obtained for this country.

According to the results, both poverty and inequality fluctuated largely in Brazil during the 26-year period under analysis. The changes between 1979 and 1980, between 1985 and 1986, and between 1990 and 1992, are worth noting. The poverty trends in Brazil throughout 1970-1995 are similar to the aggregates presented in Figure 1, but in the case of inequality, we find that the Gini did not decrease significantly in Brazil during the 1970s. Poverty did not increase in this period because the deteriorations in income distribution were offset by high growth rates.

Several authors have studied the changes in poverty and inequality in this country. Table C2 at the end of this appendix compiles the estimates of the twelve studies measuring income distribution and poverty in Brazil that we were able to identify. None of the studies cover the entire 1970-1995 period, and most of them concentrate on the 1980s.

Table B2: Social Indicators for Brazil, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	57.1	19.3	23.8	7.2	1.0	22,838	49.4	22.5	12.7	47,352
1972	58.0	20.6	18.8	5.1	1.4	18,958	43.1	18.6	10.0	43,359
1976	60.0	23.7	14.7	3.8	0.8	16,251	36.0	15.0	7.9	39,846
1979	60.2	24.6	12.3	3.3	0.0	14,538	31.2	12.7	6.7	36,975
1980	57.1	21.2	10.5	1.6	0.0	12,735	28.2	10.4	4.9	34,232
1981	55.0	19.1	10.3	2.5	0.0	12,789	28.7	11.2	5.6	35,616
1982	54.3	15.2	12.0	4.6	0.0	15,235	21.7	10.1	6.4	27,587
1983	59.1	26.1	15.5	5.8	0.7	20,186	33.1	15.3	9.1	43,038
1985	60.6	22.2	11.7	2.8	0.7	15,921	31.5	12.5	6.3	42,734
1986	56.3	19.5	13.0	1.4	0.8	17,983	25.7	9.3	4.3	35,614
1987	58.0	23.0	14.2	1.4	0.9	19,982	33.3	14.2	7.8	47,045
1989	60.7	26.3	23.2	7.4	3.1	33,963	45.4	21.5	12.4	66,516
1990	61.1	28.2	24.5	2.8	1.5	36,482	46.3	23.0	14.2	68,980
1992	59.4	29.7	22.4	3.5	1.7	34,571	42.7	21.7	14.2	65,762
1993	61.7	32.4	24.1	4.4	1.9	37,766	45.4	23.2	15.2	71,153
1995	61.4	30.7	22.9	4.4	2.2	36,990	43.5	8.0	13.9	70,224

Source: Authors' calculations.

Even though methodologies change considerably across studies, there are several similarities between our results and those of a number of works. For instance, Fox and Morley, Moran, Psacharopoulos, et.al. (1993) (who use income adjusted to national accounts, rather than consumption), Datt and Ravallion (1992) (who use only labor income and a different poverty line), Ferreira and Lietchfield (1996), and Romao (these last two works use country and region-specific poverty lines) obtained trends that are similar to the ones in Table B2, although in most cases the magnitude of the shifts from one year to another varies.

There are also some differences. First, the changes in income distribution do not coincide with those obtained by Paes de Barros, et.al. (1995), who find that income inequality remained fairly unchanged during the 1980s. Secondly, there are disparities between our estimates and those of Cojuntura Económica (1997), who obtain a reduction in the head count ratio between 1993 and 1995 that is much larger than our estimate (around 33%). This study does not specify the methodology used for the calculations, so we performed several experiments to identify the nature of the difference. Specifically, we found that if income distribution did not change dramatically between these two years (in fact, our results and those by Paes de Barros, et.al. (1997) suggest it remained fairly stable), the only way to achieve a 33.3% reduction in the head count ratio - which is equal to the decline reported by Cojuntura Económica - by using a constant poverty line, is through a rise in average income per capita of more than 30% in real terms. As according to our sources, PPP adjusted private consumption per capita and GDP per capita only increased by around 7% between these two years, we obtain a much smaller reduction in poverty.

ile

The expanded data set includes eight observations for Chile, most of them concentrated in the 1990s[43]. For the late 1980s and the 1990s, there are two sources of information that meet the requirements of a "good quality" data set. On the one hand, the *Encuesta Nacional de Empleo* (ENE) is available for 1989, 1990, 1991, 1992, and 1993, while the *Caracterización Socioeconómica Nacional* (CASEN), is available for 1987, 1990, 1992, and 1994. Since the original DS data base also includes observations for 1989 and 1994 from the ENE , we chose to use the ENE to increase the number of observations to make the data more comparable through time.

Table B3: Social Indicators for Chile, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1971	47.4	12.2	5.2	0.9	1.3	500	20.6	6.9	3.1	1,995
1980	53.1	14.4	7.7	0.8	0.0	853	23.5	7.7	3.3	2,621
1989	59.0	17.0	8.0	1.3	0.3	1,034	31.3	10.6	4.7	4,058
1990	58.5	17.1	8.1	2.8	1.5	1,063	31.0	10.6	4.7	4,090
1991	58.0	17.1	6.9	3.4	1.6	924	28.7	9.6	4.2	3,843
1992	57.5	17.2	5.3	3.5	1.7	720	25.7	8.2	3.4	3,493
1993	57.0	17.3	4.6	4.4	1.9	639	24.2	7.6	3.1	3,349
1994	56.5	17.3	4.4	4.4	2.1	613	23.5	7.4	3.0	3,298

Source: Authors' calculations.

To check for the importance of the latter decision, we performed a robustness test by re-estimating the LAC poverty aggregates and the three types of aggregate Gini coefficients by using the information on income distribution from the CASEN (taken from Ferreira and Lietchfield (1997)) rather than the ENE, but the conclusions presented in this work did not change.

Table B3 shows our poverty and inequality estimates for this country. Perhaps the most interesting feature, is that the trends for the 1970s are different from the aggregate: the head count ratio rose during this decade, while the Gini coefficient increased in more than 12%. In contrast, the shifts for the 1980s are similar to the aggregate.

With regard to the 1990s, Chile registers improvements in poverty and income distribution, but this last result is not robust to the use of different sets of information, so it should be taken with caution. The reason is that in their detailed analysis based on the information in CASEN, Ferreira and Lietchfield (1997) show that income distribution did not improve during the 1990s. Therefore, the estimates we present in Table B3 probably overestimate the reduction in inequality during the present decade. If this is so, Chile would also be very close to the aggregate trends in Figure 1 during the 1990s.

[43]The DS data set reports a Gini index for 1980, but according to CEPAL (1987a), the only survey held in Chile in this year, was the *Encuesta de Ocupación y Desocupación* which is an urban employment survey that does not fulfill the requirements of a "good quality" data set. As we were not able to confirm that the Gini for 1980 that appears in the "good quality" data set by DS was in fact taken from a nationally representative household survey, we did not use this observation to obtain the aggregate LAC estimates.

Table C3 summarizes the poverty and inequality estimates we found in other published sources. Almost all the studies we found (with the exception of Mujica) have concentrated on the changes between 1987 and 1994, so we were able to compare the estimates for the 1970s and early 1980s with only few works.

In terms of poverty indicators, the trends we obtained roughly coincide with those by CEPAL (1996), Cowan and de Gregorio (1996), Larrañaga (1994), Mideplan, Raczynski (1992) and Scott (1996), and the main methodological difference is that these studies use a country-specific poverty line.

Our estimates differ from those of Altimir (1994), who argues that poverty was reduced substantially between 1987 and 1990 (we found that this was not the case), and CEPAL (1993, 1996), and Cowan and de Gregorio (1996) who conclude that inequality increased between 1993 and 1994, and between 1992 and 1994, rather than decreasing. The difference with the CEPAL study appears to be that those estimates are based on urban income distributions rather than national incomes, but this could not be corroborated.

olombia

The expanded data set includes eight observations for Colombia. One of the features of the Colombian data is that the surveys conduced between 1978 and 1994 are biased by a problem in income coding (all the incomes above 999,999 are censored due to problems in the survey questionnaires). Several authors including Moreno (1993) have tried to correct for this problem, and the estimates we used to obtain the LAC aggregates take this issue into account.

One additional difficulty for dealing with the Colombian observations, is that as noted by Londoño (1995), the latest household surveys are not very comparable among each other. For the 1990s, four observations (1991, 1993, 1994 and 1995) are available. The 1991 observation is from the DS data set while the 1993-1995 observations, which are comparable among themselves, are from the *Encuesta Nacional de Hogares*. Specifically, the problem is that if the original information for 1991 and 1993-95 was used to produce estimates, we would find a sudden increase in the value of the poverty and inequality indices, but the shift would mostly be due to differences in the degree of censoring, methodology and coverage in these surveys.

Table B4: Social Indicators for Colombia 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	57.3	8.6	18.0	8.1	1.0	3,845	53.5	12.5	3.5	11,425
1971	55.0	14.1	18.4	4.2	1.3	4,019	46.1	18.9	9.7	10,074
1972	53.2	14.4	15.4	3.2	1.4	3,431	42.9	16.7	8.2	9,581
1974	48.0	11.3	8.9	1.9	0.9	2,080	31.0	10.9	5.1	7,214
1978	48.8	12.9	9.0	2.2	0.0	2,285	27.9	10.3	5.1	7,088
1988	48.3	13.1	7.7	1.9	1.1	2,407	23.5	8.8	4.4	7,330
1991	50.3	15.1	9.6	3.4	1.6	3,145	24.9	10.2	5.7	8,177
1993	48.2	13.1	7.7	4.4	1.9	2,629	23.8	8.8	4.4	8,078

Source: Authors' calculations.

After noticing the problems that arose with the comparison of the estimates for 1993 and 1991, Londoño (1995) adjusted the 1993 survey to make it more compatible with previous observations. Unfortunately, no correction to the 1994 and 1995 data is available, so we decided to exclude these observations from our sample. If we included them, we would find that poverty and inequality increased between the (corrected) 1993 observation and 1994, but this result would simply reflect methodological differences between the 1991 and 1993-1994 surveys[44]. In a recent study, Ocampo, Pérez and Tovar (1997) use an improved methodology to deal with the censoring problem, and find that income distribution remained practically unchanged between 1978 and 1995, and it is worth noting that we arrive to the same conclusion as the previous study for 1978-1993. Nevertheless, we performed a sensitivity test where we included the 1994 and 1995 distributions that appear in Ocampo, et.al. (1997) into our data set, and recompute the LAC aggregate estimates. Our conclusions about the LAC trends remained unchanged.

One feature of the results for Colombia is that it registers the smallest short-term variations, and income distribution and poverty seem to have remained very stable for long periods of time. According to our estimates (presented in Table B4), inequality and poverty reduced significantly during the 1970s, in line with the LAC aggregate trends, but remained at around the same levels during the 1980s and 1990s.

We were able to identify 13 studies that measure poverty and inequality in this country for some of the years under study. The estimates are summarized in table C4.

There are four studies (Nuñez and Sanchez (1997), Londoño (1995), Departamento Nacional de Planeación (1995), and Psacharopoulos, et.al. (1993)) that present trends similar to ours. The rest present some differences. For instance, Altimir (1979, 1994) reports some estimates from several sources, according to which poverty in Colombia increased sharply between 1970 and 1972 and then declined again between 1972 and 1994. However, as the sources differ in the definition of income, these observations are not very comparable.

Similarly, CEPAL (1986, 1996) presents some estimates showing a sharp increase in poverty between 1986 and 1993, which is not in line with our results. The CEPAL studies do not provide details on methodology, but it is likely that part of the shift is caused by the problem of comparability between surveys. Our estimates also differ slightly from those reported in Lasso and Guerrero (1993) and Moreno (1993); in this case the nature of the discrepancy seems to be that these authors adjust the incomes reported in the surveys to make them compatible with the incomes in the National Accounts.

There are also some discrepancies with the studies by Ocampo, et.al. (1997) and the World Bank (1994), since those studies found that poverty in Colombia decreased slightly during the 1990s, while we found a very

[44]CEPAL (1996) has compared poverty in 1986 with the estimate for 1993 and 1994, and actually found a sudden increase in the head count ratio from 17% to 27%. Perhaps part of this shift is due to the differences between the surveys.

stable pattern. Perhaps the difference lies in that we have used consumption as a welfare indicator while the aforementioned studies use income and different methods to deal with income censoring.

osta ica

Costa Rica is among the countries with the largest number of available observations, with 15. Nine of those observations were taken from the DS data, and we had access to the information from six additional surveys, called the *Encuestas de Hogares de Propósitos Múltiples*. There is a high degree of comparability, especially between the latest surveys.

Table B5: Social Indicators for Costa Rica, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators (%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	Moderate Poverty Indicators (%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	44.5	9.4	3.1	0.2	1.0	54	26.0	7.5	2.8	451
1971	44.5	9.4	3.9	0.3	1.3	69	27.4	8.1	3.1	487
1977	51.5	19.6	13.6	6.2	0.0	283	29.0	13.7	8.7	605
1979	49.5	17.4	12.0	5.0	0.0	266	26.7	12.2	7.5	591
1981	47.5	15.6	13.2	5.2	0.0	310	29.6	13.3	8.0	696
1982	47.1	13.2	12.9	4.4	0.0	312	32.3	13.5	7.6	782
1983	46.8	11.5	9.9	2.7	0.7	246	29.7	11.2	5.7	741
1986	43.8	11.0	8.9	3.8	0.8	241	22.7	9.6	5.7	618
1989	46.1	12.7	9.5	3.1	1.4	282	25.3	10.2	5.6	747
1990	45.9	12.9	9.4	3.2	1.3	284	24.7	10.0	5.4	750
1991	47.4	14.0	10.3	3.7	1.7	321	26.0	10.9	6.1	810
1992	46.5	12.8	8.5	2.6	1.1	270	23.5	9.2	4.9	749
1993	46.7	12.6	7.6	2.0	0.7	248	23.1	8.6	4.3	754
1994	48.0	13.4	7.9	2.2	0.8	264	23.2	8.8	4.5	776
1995	46.5	12.6	7.4	2.0	0.7	253	22.1	8.3	4.2	758

Source: Authors' calculations.

Table B5 presents our poverty and inequality estimates for Costa Rica, and shows that overall, the country follows very similar trends than the aggregate LAC. The main difference is that rather than declining consistently during the 1970s, inequality appears to rise between 1970 and 1976, but from this year on, the path conforms closely to that observed in Figure 1. Another difference is that poverty did not rise in this country during the 1980s, while most of the other countries in our sample registered sharp increases.

We were able to find twelve studies measuring poverty and inequality in Costa Rica, most of them concentrating in the late 1980s and the 1990s. Table C5 summarizes the available estimates. The results in DGEC, Psacharopoulos, et.al. (1993) and Seglison, et.al. (1995) are similar to ours, but we found several differences with the others.

For instance, according to Altimir (1979, 1994) and Cepal (1993), poverty declined between 1971 and 1981, and increased between 1981 and 1988; we found the opposite trend. Similarly, Gindling and Berry, and Morley and Alvarez estimated that poverty increased in the early 1980s, and declined between 1986 and the late 1980s, while our results indicate that poverty declined during 1981-1986, and increased between 1986 and 1989. Apparently, the difference is that the latter three studies use a country-specific poverty line that has not changed in the same way as the one used in this study for international comparisons.

Other differences are that according to Sauma and Trejos, the Gini coefficient remained constant in Costa Rica between 1983 and 1986, while our results suggest that there was some improvement in these years. Contrary to the trends we present in Table B5, the World Bank reports that poverty increased between 1977 and 1983, but their results regarding 1983-1986 coincide with ours.

e ominican e ublic

One of the three exceptions we made regarding the inclusion of a country in our sample is the case of the

Dominican Republic, since this country does not have an observation for the 1970s. We included it because the country does have data for the 1980s and 1990s, and we proxied the 1970s distribution with the information for 1984. The expanded data set includes four observations for this country; two taken from DS, one from the *Encuesta de Ingreso Consumo*, and another from the *Encuesta de Ingresos y Gastos*.

Table B6: Social Indicators for Dominican Republic, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1984	42.1	8.9	9.9	1.4	0.5	621	37.3	13.0	5.8	2,340
1986	48.2	13.9	16.2	6.0	0.8	1,062	38.2	16.6	9.7	2,505
1989	50.7	13.3	11.9	2.7	0.8	833	35.7	13.4	6.6	2,503
1992	51.6	12.8	13.2	3.5	1.7	986	39.5	14.9	7.4	2,949

Source: Authors' calculations.

Table B6 presents the results for this country, and shows that income distribution deteriorated consistently between 1984 and 1992. This result corresponds to the aggregate trends in Figure 1. With regard to poverty, we find that the head count ratio for moderate poverty diminished during the 1980s, and increased in the 1990s, while extreme poverty increased during the 1980s and reduced between 1989 and 1992. Thus, the results for extreme poverty are more similar to the aggregate trend.

Nine studies measuring poverty and inequality in the Dominican Republic were identified, but only three of them examine changes through time. Table C6 summarizes the results of all the studies, and shows that only the study by Santana and Rathe (1992) obtained changes going in the same direction as ours. The study by Dauhajre and Gamez does not coincide with our results because rather than showing a decline in poverty between 1986 and 1989, they register an increase. The difference is that these authors apparently adjusted the original information (in a way in which not only the level of income, but its distribution, is modified) to make it compatible with the incomes of the National Accounts, while we used consumption as a reference. Additionally, these studies use local poverty lines rather than an internationally comparable criterion.

uatemala

Guatemala is another country that was included in our sample despite not fulfilling the requirement of having a household survey for the 1990s. We decided to include it in this study because the last observation available, 1989, is sufficiently close. The expanded data set includes three observations obtained from DS.

Table B7 summarizes our estimates of poverty and inequality, and shows that the trend observed by these two indicators between 1979 and 1989 correspond to the trends for the whole region (see Figure 1). One interesting feature is that the Gini coefficient increased by 20% during the 1980s, which is the second largest deterioration in income distribution among the countries in our sample.

Table B7: Social Indicators for Guatemala, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1979	49.7	9.5	10.0	19.2	0.0	671	26.0	27.4	64.4	1,749
1987	58.6	23.0	21.4	1.4	0.9	1,805	44.3	20.8	12.6	3,735
1989	59.9	30.0	24.1	11.0	6.6	2,153	45.0	23.1	15.1	4,025

Source: Authors' Calculations.

We identified five studies measuring inequality or poverty in Guatemala (see Table C7). Even though the years of the estimations do not coincide, the findings corroborate our results.

onduras

The DS data base includes one observation for Honduras. To this, we added the information from the *Encuesta Permanente de Hogares*, for 1989, 1990, 1994 and 1995. Therefore, there is a high degree of comparability between these last sets of information. Although Honduras does not have nationally representative household surveys for the 1970s, we decided to include it in our sample because one observation in DS is available for 1968. As this year is sufficiently close to the 1970s, we used it as a proxy for the distribution of income in 1970.

Table B8 presents the estimates of poverty and inequality we obtained for this country. According to our results, income distribution improved slightly between 1970 and 1989 and sharply between 1989 and 1992. Moderate and extreme poverty levels in Honduras are the highest in the region, and Table B8 shows that they have remained fairly stable during the 1990s. The recent trends are in line with the changes we observe in the entire region.

Table B8: Social Indicators for Honduras, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	61.8	38.2	48.8	26.8	18.2	1,266.1	70.3	43.9	32.3	1,822.2
1989	59.9	23.5	42.6	19.5	11.4	2,017.0	69.2	38.5	25.9	3,276.3
1990	58.4	22.5	40.3	18.3	10.7	1,966.2	67.8	37.0	24.6	3,309.9
1992	51.8	14.7	39.2	17.6	9.8	2,028.0	66.2	35.6	23.4	3,427.3
1994	55.0	19.3	38.0	17.0	9.0	2,088.9	64.5	34.3	22.3	3,545.0
1995	56.9	19.9	39.0	16.7	10.0	2,208.5	65.6	35.0	22.9	3,713.7

Source: Authors' calculations.

We were able to identify six alternative studies for Honduras (see Table C8). Since there are differences in years and dates among the information used in these works, and only three of them look at changes through

time, we are only able to compare our results with those of the World Bank (1991) and the Ministry of Planning. Our results coincide with the former, but while we find that poverty in Honduras declined between 1989 and 1992, the latter indicates that poverty rates remained unchanged during the same period.

amaica

The expanded data base for LAC includes seven observations for Jamaica, all of them obtained from DS. Table B9 presents our results: income distribution improved between 1975 and 1988, and apparently there was no deterioration during the 1980s, as was the case for the LAC aggregate and most of the countries in our sample. This result may to some extent be influenced by the lack of information on inequality for the early 1980s; strictly speaking, it is not known if the Gini declined during this decade. With regard to poverty levels, the head count ratio also appears to have remained almost unchanged between 1975 and 1988.

The trends followed by the Gini coefficient during the 1990s - for which we have more information - seem to differ from the aggregate trends in that there was a considerable improvement in income distribution, with the Gini declining by almost 10%. However, the changes in poverty appear to be very similar to the aggregate LAC estimates.

Table B9: Social Indicators for Jamaica, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1975	45.6	12.3	10.7	3.2	0.8	216	29.1	11.6	6.1	585
1988	43.1	9.1	7.3	1.9	1.1	174	29.6	9.8	4.4	703
1989	43.3	9.6	7.4	1.3	0.3	178	28.9	9.8	4.4	692
1990	41.8	8.1	5.4	2.8	1.5	132	27.4	7.8	2.9	663
1991	41.1	8.1	6.5	3.4	1.6	159	29.6	9.5	4.1	724
1992	38.2	7.0	5.4	3.5	1.7	134	27.1	7.7	2.9	670
1993	37.9	6.6	4.3	4.4	1.9	108	25.1	6.7	2.4	627

Source: Authors' calculations.

We were able to identify four studies on income distribution and poverty (see Table C9), but each concentrates on a single year. Therefore, we were not able to draw comparisons with other estimates in this case.

exico

The original DS data contains four observations for Mexico that fulfill the requirements we imposed to the expanded data. The surveys belong to 1975, 1977, 1984, and 1989. Additionally, an observation for 1968 (found

in the DS data set) is available, and we have used it as a proxy for the distribution of income in 1970.

As explained by Székely (1998), the 1984 and 1989 data sets are highly comparable with each other, but the 1975 and 1977 surveys were held by different institutions using different methodologies. Several of the authors who used the Mexican data have recommended not using the 1975 household survey, since this data base seems to have several problems in its construction and is not reliable[45]. Because of this, we have discarded the information for 1975.

To the observations in DS, we added the information in the *Encuesta Nacional de Ingresos y Gastos de los Hogares* for 1992 and 1994[46], which are highly comparable with the 1984 and 1989 data.

Table B10: Social Indicators for Mexico, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	57.94	21.8	16.06	3.58	2.01	7,771.1	40.54	16.75	7.76	19,621.4
1977	50.86	18.8	15.0	3.3	0.0	8,945	37.8	15.6	7.2	22,585
1984	47.38	11.7	10.1	1.8	0.5	7,399	18.8	7.8	3.6	13,352
1989	53.65	15.7	13.5	2.4	1.4	10,735	21.4	8.8	4.1	16,984
1992	53.62	15.9	10.4	3.5	1.7	8,955	19.3	8.0	3.7	16,370
1994	54.23	16.4	10.6	4.4	2.1	9,549	19.7	8.1	3.8	17,377

Source: Authors' calculations.

According to the estimates presented in Table B10, the trends in Mexico are very similar to the changes registered by the aggregate LAC indicators: poverty and inequality appear to decline significantly during the 1970s, they increased sharply in the 1980s, and remained fairly stable during the first half of the present decade.

We were able to identify nineteen studies reporting estimates on income distribution and poverty in Mexico for some of the years comprising 1970-1995[47]. Table C10 summarizes the information contained in these papers. The only works that present estimations for the same years as the present study are Székely (1996, 1998), while most of the others concentrate on the decade from 1984-1994.

In terms of income distribution, the trends presented in all the studies available coincide with ours. With regard to poverty, most of the works show the same trend in the head count ratio, although the magnitude of the changes reported differs. The main reason for the discrepancy in the magnitude of the shifts is that some studies apply an adjustment factor to inflate the incomes in order to make them compatible with the National Accounts,

[45] See for instance Bergsman (1980), Altimir (1984), and Székely (1996, 1998) for details on this argument.

[46] The original DS data includes an estimate of the Gini for 1992, but since it does not give information on the distribution by quintile shares, we excluded it from the sample. We had access to the original survey, so we added both, the Gini coefficient and the quintile share distribution to the expanded data base.

[47] Our compilation draws on the information already gathered by Lustig (1992) and Lustig and Székely (1997).

while others use the original incomes.

The main differences between the available studies and our results are that Hernández Laos (1989) and CEPAL (1996) conclude that moderate poverty increased between 1977 and 1984, while our calculations indicate a sharp decline. This appears to be because these studies use a country specific poverty line that differs substantially from the one we have used.

Panama

The DS database includes four observations for Panama, and we were able to find two additional surveys from CEPAL (1993g), and the *Encuesta de Hogares* of 1994. Table B11 presents our estimates. According to our calculations, Panama follows the LAC aggregate trend in poverty and inequality very closely, with improvements during the 1970s, sharp deteriorations in the 1980s, and relative stability in the early 1990s.

We found four other studies (see Table C11) all of them presenting the same trends as our results.

Table B11: Social Indicators for Panama, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	58.4	34.1	31.8	17.0	11.7	479	52.7	30.0	21.3	793
1979	48.9	14.1	18.8	6.0	2.5	358	43.0	18.8	10.5	819
1980	47.5	12.5	16.2	4.5	1.7	316	40.6	16.8	8.9	792
1986	52.0	21.3	23.3	10.3	6.0	515	44.0	22.2	14.3	973
1989	56.8	29.9	28.0	14.2	9.5	659	50.0	26.9	18.5	1,175
1991	57.4	30.6	26.9	13.5	8.8	656	48.4	25.9	17.6	1,184

Source: Authors' calculations.

Peru

We have four observations for Peru. 1994 comes from DS; the distributions for 1970 and 1973 are from CEPAL (1989), and the 1986 observation corresponds to the *Estudio de Medición de Niveles de Vida,*1985-1986.

Table B12: Social Indicators for Peru, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	48.5	17.4	14.0	6.1	1.0	1,840	29.9	14.1	8.8	3,946
1973	49.3	15.3	12.0	4.8	1.5	1,720	28.2	12.4	7.4	4,053
1986	43.0	8.0	5.6	0.6	0.8	1,107	24.2	5.9	2.0	4,795
1994	44.9	10.3	11.2	4.4	2.1	2,617	35.0	12.9	6.3	8,175

Source: Authors' calculations.

Table B12 summarizes our estimates for Peru, and allows to see that there are only slight differences with

respect to the LAC aggregates; namely that inequality appeared to rise between 1970 and 1973, while income distribution in LAC as a whole was improving. The only differences regarding poverty levels are that contrary to the aggregate, poverty in Peru appeared to be declining during the early 1980s, but apart from these years, the trends correspond to those in Figure 1.

We identified six other studies for Peru for 1970-1995 (see table C12). The trends reported by Altimir (1979, 1994), Cuanto, and Figueroa (1996) coincide with ours. The rest of the studies are not strictly comparable because the timing of the surveys does not coincide with the information available in the expanded data set.

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This country had the largest number of observations in our sample, with 22. Ten were taken from DS, and the remaining 12 were obtained directly from the *Encuesta de Hogares por Muestra*. Table B13 presents the estimates we obtain from the use of this information.

The trends in poverty and inequality are very similar to the LAC aggregate. The only differences are that poverty did not appear to rise in the 1980s as much as in the rest of the region, and that income distribution seems to have deteriorated more in this country than in the others during the 1990s.

One interesting feature is that the availability of data allows to look at short-run variations in welfare. The picture we obtain for this country is that both, poverty and income distribution change considerably through time, and there are years such as 1979 and 1994, where the value of the head count and the Gini coefficient were significantly modified. Venezuela is therefore a good example of the fact that within-country inequality can vary considerably even in short periods of time (note for instance that the Gini coefficient shifts from 38 to 50 points in the 14-year period from 1979-1994).

We were able to find nine published works presenting estimates of poverty and inequality in Venezuela for the period under study (see Table C13). In general terms, the trends obtained by Altimir (1994), CEPAL (1993, 1996), IESA (1994), Morley and Alvarez, Márquez and Alvarez (1996), and Psacharopoulos, et.al. (1993) are very similar to ours. The differences are the magnitude of the estimated shift, but these are not considerable. One discrepancy is that Márquez (1991) found that poverty declined between 1988 and 1990 (we show an increase), and the opposite is true for 1985 and 1988. The difference seems to be that we are not using the same poverty lines.

Table B13: Social Indicators for Venezuela, 1970-1995

Year	Gini Index	Quintile Shares	Extreme Poverty Indicators				Moderate Poverty Indicators			
			(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor	(%) Poor	Poverty Gap	FGT(2) Index	Thousand Poor
1970	48.0	14.4	10.4	4.9	1.0	1,099	24.0	10.9	6.9	2,540
1971	48.0	14.4	10.2	4.9	1.3	1,124	23.6	10.8	6.8	2,595
1976	42.6	9.9	2.7	0.3	0.8	359	7.9	1.3	0.3	1,039
1977	42.2	9.8	2.3	0.3	0.0	310	6.6	1.3	0.3	898
1978	41.0	8.8	2.9	2.0	0.0	408	8.4	7.7	10.3	1,182
1979	38.4	8.5	2.2	0.6	0.0	324	6.4	2.3	1.1	938
1980	44.7	15.7	6.4	4.0	0.0	960	11.1	7.2	7.7	1,664
1981	44.3	15.7	6.6	4.3	0.0	1,020	12.1	6.8	5.2	1,866
1982	44.5	16.6	7.1	5.2	0.0	1,131	12.5	7.5	6.1	1,985
1983	44.9	15.5	6.1	3.5	0.7	990	11.8	6.2	4.4	1,924
1984	59.3	41.1	11.7	9.1	0.5	1,963	19.9	12.4	10.5	3,323
1985	48.0	18.6	7.5	4.2	0.7	1,287	14.5	7.6	5.4	2,495
1986	47.4	16.3	6.1	2.6	0.8	1,073	13.5	6.2	3.8	2,375
1987	46.9	17.4	6.5	1.4	0.9	1,170	12.2	8.2	9.2	2,196
1988	47.4	17.5	6.7	1.9	1.1	1,233	12.9	6.8	4.9	2,389
1989	46.1	19.3	8.5	7.2	8.2	1,603	14.3	9.3	8.2	2,706
1990	45.9	19.8	8.7	2.8	1.5	1,678	14.3	9.7	9.0	2,766
1991	45.7	19.1	8.3	3.4	1.6	1,640	13.9	9.0	8.0	2,746
1992	44.6	15.1	6.1	3.5	1.7	1,222	11.3	6.3	4.7	2,287
1993	44.9	14.3	5.3	4.4	1.9	1,099	11.0	5.4	3.7	2,262
1994	49.8	27.9	9.9	4.4	2.1	2,082	15.8	11.1	10.6	3,320
1995	47.1	19.3	7.7	4.4	2.2	1,663	13.4	8.0	6.9	2,869

Source: Authors' calculations.

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Table C2: Poverty and Inequality Estimates from Other Sources for BRAZIL

AUTHOR	VARIABLE	1970	1972	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Altimir (1979, 1994)	Ext. poverty Mod poverty Gini Coef.	35.6 63.5	33.6 55.9				17 39								18 40	
Datt/Ravallion (1992)	Ext. poverty Mod poverty Gini Coef.								26.5 0.580		32.1 0.591		26.2 0.593		24.2 0.597	26.5 0.615
CEPAL (1990, 1996)	Ext. poverty Mod poverty Gini Coef.		0.61	0.60	0.61	0.56	17 39 0.66		0.53	0.56	0.57	0.52	0.53		18 40 0.61	
Chan **	Ext. poverty Mod poverty Gini Coef.												24			
Conjuntura Economica (-1997)	Ext. poverty Mod poverty Gini Coef.													23.7		
Ferreira/Litchfield (1996)	Ext. poverty Mod poverty Gini Coef.								44.5 0.574		55.3 0.584	52.0 0.577	45.7 0.589	29.6 0.581	41.7 0.592	43.9 0.609
Fox/Morley *	Ext. poverty Mod poverty Gini Coef.								24.8		30.9		25.4	16.1	23.3	26.9
IDB **	Ext. poverty Mod poverty Gini Coef.						28									
Moran *	Ext. poverty Mod poverty Gini Coef.								22.0		28.0			12.0		
Paes de Barros/-Mendonca/Rocha (1995)	Ext. poverty Mod poverty Gini Coef.	0.63					0.59	0.58	0.58	0.59	0.59	0.59	0.59	0.59	0.60	0.61
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.						12.2 34.1 0.594									
Romao **	Ext. poverty Mod poverty Gini Coef.							24			42			28	36	

** Cited in Psacharopoulos et. al. (1993)€*
*** Cited in Mejia and Vos (1997)*

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Table C3: Poverty and Inequality Estimates from Other Sources for CHILE

AUTHOR	VARIABLE	1970	1979	1980	1981	1982	1983	1984	1985	1986	1987	1989	199
Altimir (1979, 1994)	Ext. poverty Mod poverty Gini Coef.	6.0 17.0		33							14 38		12 35
CEPAL (1993, 1996)	Ext. poverty Mod poverty Gini Coef.										13 38	0.54	11 33 0.5
Cowan/de Gregorio (1996)	Ext. poverty Mod poverty Gini Coef.										16.8 44.6		13. 40. 0.4
Ferreira/Litchfield (1997)	Ext. poverty Mod poverty Gini Coef.										22.1 51.4 0.547		16. 44. 0.5
IDB **	Ext. poverty Mod poverty Gini Coef.											12	
Larrañaga (1994)	Ext. poverty Mod poverty Gini Coef.										38.2		34.
MIDEPLAN **	Ext. poverty Mod poverty Gini Coef.										38		35
Mujica *	Ext. poverty Mod poverty Gini Coef.		0.52	0.53	0.52	0.54	0.54	0.54	0.53	0.54	0.53		
Pardo *	Ext. poverty Mod poverty Gini Coef.										0.53		0.5
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.											1.5 10.0 0.573	
Raczynski (1992)	Ext. poverty Mod poverty Gini Coef.										16.8 44.6		13. 40.
Scott (1996)	Ext. poverty Mod poverty Gini Coef.	6.5 17.0									13.5 38.1		11. 34.

** Cited in Morley (1994)€*
*** Cited in Mejía and Vos (1997)€*

Table C4: Poverty and Inequality Estimates from Other Sources forCOLOMBIA

AUTHOR	VARIABLE	1970	1971	1972	1974	1977	1978	1980	1981	1982	1984	1985	1986	1987	1988	1989	1990
Acevedo (1986)	Ext. poverty Mod poverty Gini Coef.		0.52														
Altimir (1979, 1994)	Ext. poverty Mod poverty Gini Coef.	38.2 64.7		64.3 81.2	36.9 65.3			16 39					17 38				
CEPAL (1986, 1996)	Ext. poverty Mod poverty Gini Coef.	18 45						16 39					17 38				
Departamento Nac. de Planeación (1996)	Ext. poverty Mod poverty Gini Coef.										0.488	0.500	0.507	0.482	0.491	0.494	0.486
Departamento Nac. de Planeación (1995)	Ext. poverty Mod poverty Gini Coef.						23.3 56.3 0.49								22.1 54.3 0.49		
IDB ***	Ext. poverty Mod poverty Gini Coef.																
Lasso/Guerrero (1993)	Ext. poverty Mod poverty Gini Coef.						21.0 0.485								15.5 0.451		
Londoño (1995)	Ext. poverty Mod poverty Gini Coef.		0.527				29** 0.481								25** 0.477		
Núñez/Sánchez (1997)	Ext. poverty Mod poverty Gini Coef.				0.565	0.574			0.615			0.602				0.575	
Moreno (1995)	Ext. poverty Mod poverty Gini Coef.						21.0 0.485								15.5 0.451		
Ocampo/Perez/Tovar (n/d)	Ext. poverty Mod poverty Gini Coef.						25.1 59.1 0.542								27.2 59.2 0.554		
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.							6.0 13.0								2.9 8.0	
World Bank (1994)	Ext. poverty Mod poverty Gini Coef.						23.6 0.55*								18.7 0.51*		

** Cited in Morley (1994)€*
*** Cited in Psacharopoulos et. al. (1993)*
**** Cited in Mejía and Vos (1997)*

Table C5: Poverty and Inequality Estimates from Other Sources for COSTA RICA

AUTHOR	VARIABLE	1970	1971	1977	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Altimir (1979, 1994)	Ext. poverty Mod poverty Gini Coef.		10.4 24.3			6 22							8 25		10 24	
CEPAL (1993)	Ext. poverty Mod poverty Gini Coef.	6 24				6 22 0.42	0.43			0.41			8 25 0.45	0.44	10 34 0.44	
Chan ***	Ext. poverty Mod poverty Gini Coef.									15						
DGEC ***	Ext. poverty Mod poverty Gini Coef.											29	28	28	27	32
Gindling/Berry *, **	Ext. poverty Mod poverty Gini Coef.				48.0 0.40	62.0 0.41	78.0 0.42	69.0 0.38	58.0 0.38	63.0 0.37	52.0 0.36	45.0 0.42	0.42			
IDB ***	Ext. poverty Mod poverty Gini Coef.					15								4	10	10
Morley/Alvarez **	Ext. poverty Mod poverty Gini Coef.					25.4					26.8			10.2		
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.					5.4 13.4 0.475								1.1 3.4 0.460		
Sauma/Garnier (1997)	Ext. poverty Mod poverty Gini Coef.			8.5 18.5				13.6 35.8			9.9 21.5	9.1 29.0	9.8 28.4	9.0 28.3	9.1 27.1	11.7 31.9
Sauma/Trejos *	Ext. poverty Mod poverty Gini Coef.							0.42			0.42					
Seligson/Martínez /Trejos (1995)	Ext. poverty Mod poverty Gini Coef.		29.4 0.43					35.8 0.45			21.5 0.44		18.6 0.42			
World Bank (	Ext. poverty Mod poverty Gini Coef.	12 31	0.44	8 16 0.42				17 35 0.42			11 20 0.42					

** Cited in Morley (1994)€*
*** Cited in Psacharopoulos et. al. (1993)*
**** Cited in Mejía and Vos (1997)*

Table C6:Poverty and Ineqality Estimates from Other Sources for DOMINICAN REPUBLIC

AUTHOR	VARIABLE	1984	1986	1989	1992
Dauhajre *	Ext. poverty Mod poverty Gini Coef.		10.5 18.3	13.7 24.5	9.0 20.6
Del Rosario *	Ext. poverty Mod poverty Gini Coef.	20 60			
Gamez *	Ext. poverty Mod poverty Gini Coef.	11.8 39.2		24.5 51.7	
IDB **	Ext. poverty Mod poverty Gini Coef.			25	
PNUD *	Ext. poverty Mod poverty Gini Coef.			20.2 29.8	
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.			4.9 24.1 0.503	
Santana/Rathe (1992)	Ext. poverty Mod poverty Gini Coef.	0.43		0.51	
Swindale *	Ext. poverty Mod poverty Gini Coef.		17.3 33.3		
World Bank **	Ext. poverty Mod poverty Gini Coef.				21

** Cited in Aristy and Dauhajre (n/d).€*
*** Cited in Mejía and Vos (1997)*

Table C7:Poverty and Ineqality Estimates from Other Sources for GUATEMALA

AUTHOR	VARIABLE	1980	1981	1985	1986	1988	1989
CEPAL (1993, 1996)	Ext. poverty Mod poverty Gini Coef.	33 65			43 68 0.53		 0.54
Chan *	Ext. poverty Mod poverty Gini Coef.			57			
IDB *	Ext. poverty Mod poverty Gini Coef.				63		62
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.				36.6 66.4 0.579		42.1 70.4 0.587
World Bank **	Ext. poverty Mod poverty Gini Coef.		 0.48		 0.53		 0.57

** Cited in Mejía and Vos (1997).*
*** Cited in Morley (1994).*

Table C8:Poverty and Ineqality Estimates from Other Sources for HONDURAS

AUTHOR	VARIABLE	1980	1985	1986	1988	1989	1990	1991	1992
CEPAL (1993, 1996)	Ext. poverty Mod poverty Gini Coef.			51 71	 0.58	 0.54	54 75 0.55		50 73
IDB *	Ext. poverty Mod poverty Gini Coef.					62			
Ministry of Planning **	Ext. poverty Mod poverty Gini Coef.					55 72	63 78	66 82	55 72
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.			21.6 48.7 0.549		22.7 54.4 0.591			
Thorpe (1996)	Ext. poverty Mod poverty Gini Coef.						13.0 63.0		
World Bank (1991)	Ext. poverty Mod poverty Gini Coef.	11.5 56.7	21.9 56.9			36 55 0.54	43 62 0.54	43 63 0.50	31 50 0.49

** Cited in Mejía and Vos (1997)€*
*** Cited in World Bank (1991)*

Table C9: Poverty and Ineqality Estimates from Other Sources for JAMAICA

AUTHOR	VARIABLE	1980	1985	1986	1988	1989
Chan **	Ext. poverty Mod poverty Gini Coef.		6			
Gordon **	Ext. poverty Mod poverty Gini Coef.					33
IDB **	Ext. poverty Mod poverty Gini Coef.					11
Psacharopoulos (1993) *	Ext. poverty Mod poverty Gini Coef.					1.1 12.1 0.435

** Based on consumption data.*
*** Cited in Mejía and Vos (1997).*

Table C10: Poverty and Ineqality Estimates from Other Sources for MEXICO

AUTHOR	VARIABLE	1977	1984	1989	1992
Alarcón/McKinley (n/d)	Ext. poverty Mod poverty Gini Coef.		 0.429	 0.469	 0.475
Altimir (1994)	Ext. poverty Mod poverty.	10 32	10 30		
Aspe/Beristain (1984)	Gini Coef.	0.50			
Bergsman (1980)	Ext. poverty Mod poverty Gini Coef.	 0.476			
CEPAL (1996)	Ext. poverty Mod poverty Gini Coef.	10 32.0 0.48	11 34.0	14 39	12 36
Hernández Laos (1989)	Ext. poverty Mod poverty Gini Coef.	34.0 58.0 0.487	29.9 58.5 0.452		
IDB **	Ext. poverty Mod poverty		 14	 19	 20
INEGI (1984, 1989, 1992, 1994)	Gini Coef.		0.429	0.469	0.475
INEGI-CEPAL (1993)	Ext. poverty Mod poverty Gini Coef.		11.4 22.8	14.1 25.3	11.8 24.1
Levy *	Ext. poverty Mod poverty	19.5 81.2			
Lustig **	Ext. poverty Mod poverty Gini Coef.		 0.44		
Lustig/ Székely (1997)	Ext. poverty Mod poverty Gini Coef.		 32.73 0.474	 36.7 0.531	 34.84 0.531
Lustig/ Mitchell (1995)	Ext. poverty Mod poverty Gini Coef.		 58		
Panuco/ Székely (1996)	Ext. poverty Mod poverty Gini Coef.		10.3 29.9 0.462	10.7 28.3 0.513	10.8 27.8 0.516
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.		2.5 16.6 0.506	4.5 17.7 0.519	
SPP/OIT *	Ext. poverty Mod poverty		8.7 24.7		
Székely (1995a)	Gini Coef.		0.462	0.513	0.516
Székely (1995b)	Ext. poverty Mod poverty		 29.8	 27.3	
Székely (1996, 1998)	Ext. poverty Mod poverty Gini Coef.	15.0 23.0 0.49	11.4 30.2 0.44	11.5 29.3 0.48	11.4 28.6 0.49

** Cited in Arellano (1995).*
*** Cited in Morley (1994).*
**** Cited in Mejía and Vos (1997).*

Table C11: Poverty and Ineqality Estimates from Other Sources for PAN

AUTHOR	VARIABLE	1979	1986	1989	1991	1994
Altimir (1994)	Ext. poverty Mod poverty Gini Coef.	19 36	16 34	18 38		
CEPAL (1996)	Ext. poverty Mod poverty Gini Coef.	19 36	16 34	18 38	16 36	12 30
IDB **	Ext. poverty Mod poverty Gini Coef.	28		36		
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.	8.4 * 27.9 * 0.488		13.2 * 31.8 * 0.565		

** Urban estimations.*
*** Cited in Mejía and Vos (1997)*

Table C12:Poverty and Ineqality Estimates from Other Sources for PERU

AUTHOR	VARIABLE	1972	1979	1981	1984	1985	1986	1987	1989	1990
Altimir (1979, 1994)	Ext. poverty Mod poverty Gini Coef.	38.7 60.1	21 46				25 52			
CEPAL (1989, 1996)	Ext. poverty Mod poverty Gini Coef.	 0.58	21 46	 0.58			25 52			
Cuanto ***	Ext. poverty Mod poverty Gini Coef.					42				
Figueroa (1996)	Ext. poverty Mod poverty Gini Coef.					41.6				
GRADE **	Ext. poverty Mod poverty Gini Coef.			 0.34	 0.39		 0.40	 0.39	 0.41	 0.44
Psacharopoulos (1993) *	Ext. poverty Mod poverty Gini Coef.					3.3 31.1 0.428				10.1 40.5 0.438

** Consumption data for Lima.€*
*** Cited in Morley (1994). Estimation for Lima.*
**** Cited in Mejía and Vos (1997).*

Table C13: Poverty and Ineqality Estimates from Other Sources for VENEZUELA

AUTHOR	VARIABLE	1977	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	
Altimir (1994)	Ext. poverty Mod poverty Gini Coef.			7 22					9 27				12 34		
CEPAL (1993, 1996)	Ext. poverty Mod poverty Gini Coef.			7 22 0.39					9 27 0.42			0.40	12 34 0.40		
IESA ***	Ext. poverty Mod poverty Gini Coef.			0.40*						0.44 *	0.46 *		0.44 *		
Márquez (1991)	Ext. poverty Mod poverty Gini Coef.	0.368		34.4 37.0 0.354				41.3 48.1 0.388			37.9 56.4 0.397		34.9 65.0 0.402		
Márquez **	Ext. poverty Mod poverty Gini Coef.			17.7				28.4		31.8		41.3		34.6	
Márquez/Alvarez (1996)	Ext. poverty Mod poverty Gini Coef.		17.65	22.82	25.65	32.65	37.58	34.77	38.89	38.84	39.96	44.44	41.49	35.37	
Morley/Alvarez **	Ext. poverty Mod poverty Gini Coef.			24.0					29.0			48.2			
Psacharopoulos (1993)	Ext. poverty Mod poverty Gini Coef.		0.7 4.0 0.428									3.1 12.9 0.441			
World Bank (1991)	Ext. poverty Mod poverty Gini Coef.				10.3 22.3					15.1 28.6		22.3 31.4			

** Household income per capita.€*
*** Cited in Psacharopoulos et. al. (1993).*
**** Cited in Morley (1994).*

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