# **Growth, Poverty in Latin American Countries - Longterm Trends**

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#### Introduction

Latin America is the region with perhaps the greatest inequalities in the distribution of welfare and wealth. Despite the fact that many of the countries in the region have achieved a relatively high average income level, ample proportions of their populations continue to live in situations of absolute deprivation, lacking the necessities of life according to any objective criteria. Economic growth in the postwar period has been significant but in many instances unstable, and has declined across the region through out the eighties. Recovery of growth in the nineties has proceeded at only moderate rates. Traditional inequalities have significantly diminished with growth only in some cases, although in all cases they widened during the recession of the eighties. This complex panorama, to which economic reforms were incorporated at different moments of the last two decades, calls for a case-by-case assessment of the probable evolution of poverty during this long and eventful period.

To attempt an assessment of the long-term evolution of poverty, based on available data for the past (limited in terms of accuracy, measurement techniques and the type of data available) involves enormous compromises between how poverty should be measured and what we are actually able to estimate. The endeavor is, nevertheless, worthwhile, as was strongly emphasized at the World Summit on Social Development.

Availability of comparable income distribution data was the main reason to restrict this inquiry to Argentina, Chile, Colombia and Mexico. They also represent a variety of the different national situations present in Latin America. Section A presents the method devised for dealing with data limitations and arriving at arduous compromises. In the process, intertemporal comparability in order to depict the long-term trends of poverty and the use of alternative estimates to assess the robustness of those trends were more preferable than trying to obtain estimates of poverty based on present practices and available data since these figures would not be as accurate or decomposable. Readers not interested in these methodological intricacies can skip this section and go to Section B, where the resulting trends obtained for each country are depicted and analyzed in the context of the growth and macroeconomics of each subperiod, with commentaries on the possible *ex post facto* effects of social policy in correcting these trends.

# A. Estimating poverty trends on the basis of aggregate income distribution data

The analysis of long-term trends of absolute poverty in Latin American countries has to be based on already published or processed data on the distribution of household income, originally gathered for different purposes. Available data usually refers to the distribution of households by total household income (in general, close to a disposable income concept) or of income recipients by personal income. Very seldom the distribution of households by per capita household income is available for the not-recent past and the distribution of households by consumption expenditure rarely is.

Household employment surveys are the most frequent source of data, followed by scantier income and expenditure surveys and occasionally by acceptably reliable income information from population censuses. Also, in some instances, researchers have produced estimates of the distribution of income combining these different sources of data and the national accounts.

Therefore, producing estimates of poverty comparable over time requires: i) using the same poverty criterion; ii) explicitly taking into account the accuracy with which income was measured by each source in each period; iii) otherwise considering the comparability of data available for different dates; and iv) recognizing the difference between the distribution of households by total household income and by per capita income.

Under these circumstances, which force us to make important procedural assumptions, the best strategy is to obtain an index, or a family of indices, under different poverty definitions, approximating the long-term trend of the evolution of poverty with comparability over time being the overriding criterion. Moreover, as we shall see, given the relative degree of accuracy of the distributive data, using poverty measures that incorporate the degree of inequality is rather pointless and for this reason the indices of the evolution of poverty are based on the incidence measure (headcount ratio).

#### 1. Poverty measurement in Latin America.

Measurement of income poverty on the basis of household survey data using the food share method was initiated at ECLAC by Altimir (1979) and later undertaken regularly in ECLAC's *Social Panorama* (ECLAC, 1994, 1995, 1997). It was only in the eighties that some countries of the region began producing official estimates of poverty along similar methodological lines.

Essentially, that practice for drawing country-specific poverty lines consists in: (i) setting up in detail (taking into account cost, prevailing habits and availability of foodstuffs) what can be normatively considered a minimum food basket, providing adequate calorie and protein intakes; (ii) valuing it at relevant prices to obtain a minimum food budget; and (iii) expending the food budget to obtain a consumption budget that may cover all basic needs currently attended to privately, on the basis of the food/non-

food allocation of resources by households which spend on food just the amount of the minimum food budget (i.e,: the "food share method").

This way of assessing poverty involves some fundamental conceptual choices: (i) it considers poverty as the inadequacy of private consumption; (ii) it uses the consumption/income metric as the scale along which living standards are unidimensionally measured and, therefore, it assesses utilities more than capabilities, to measure the inadequacy of which would require a consideration of non-consumption attributes; (iii) it rests upon an absolute standard of deprivation, even though recognizing (by the country and area specificity, as well as by considering dietary habits) the context-dependency of any absolute standard; and (iv) it reflects a normative stance, since it rests on what should be (although allowing for some behavioral leeway) the minimum adequate food budget and, even when returning to behavioral evidence for establishing the non-food component of the standard, it does so with a view to making sure that the resulting amounts cover the other basic needs currently being met by means of private consumption. 2

Altimir's (1982a) poverty lines for 1970 were based on the then accepted international nutritional standards, weighted by the age and gender composition of each country's population, which were transformed into country-specific minimum-cost adequate food baskets by selecting those foodstuffs and varieties that could satisfy nutritional needs at the lowest cost per nutrient, at existing prices. However, to avoid trivial solutions, the selection took into account both the actual availability of each foodstuff and the dietary habits of low-income groups in each country and was constrained by lower bounds to the amounts of foodstuffs providing high-quality proteins and of vegetables and fruits providing minerals and vitamins and by upper bounds to the amount of foodstuffs providing cheap calories. Minimum food budgets for the capital city of each country were established by valuing each foodstuff in the minimum adequate food basket at its cost-of-living retail price, while minimum food budgets for other urban areas and for rural areas were obtained by the (informed) rule of thumb criterion of setting them at 5% and 25% respectively below those for the capital city.

The minimum private consumption budgets used as poverty lines for metropolitan and other urban areas were assessed as twice the respective cost of the minimum food baskets, since the observed food share of urban households only meeting the food budget was roughly around .5, (according to available expenditure surveys in some of the countries considered, after checking for the feasibility that those non-food budgets adequately cover housing and expenditures supplementary to free public services such as education and health care). Poverty lines for the rural areas were drawn at 1.75 the corresponding minimum food budgets, on the basis of scanty information on consumption patterns of rural households (Altimir, 1982).

ECLAC's poverty lines for the eighties were drawn according to the same minimum approach. New nutritional standards (FAO/WHO/UNU, 1985) were used, resulting in higher protein and lower calorie average requirements. Taking advantage of the greater availability of dissagregated data from expenditure surveys for almost every country

considered, the minimum food baskets were established on the basis of the composition of food consumption of those strata of households (the "reference group") that in each country attained with some latitude the minimum nutritional requirements, although such reference baskets were adjusted to those minima as well as to mean national availability of each fooditem and depurated of high-price-per-nutrient or nutritionally superfluous items (CEPAL, 1991).

Therefore, the criterion used by ECLAC for obtaining the minimum food baskets was one based on habits, taking into account availability and cost, rather than one of minimum-cost, taking into account availability and habits, as in the 1970 poverty lines. This difference of criteria has resulted, for some countries, in wide variations with respect to the 1970 minimum food baskets valued at the same prices (CEPAL, 1991; Appendix 1, Table 2), as is apparent in Table A.1, where both sets of lines are expressed at prices for the second semester of 1988.

On other regards, the procedure for obtaining the private consumption poverty lines on the basis of the minimum food budgets is the same as the one used in the 1970 estimates. Analysis of expenditure patterns in urban areas of each country, according to the latest available surveys, indicated that the respective "reference groups" (of households spending on food somewhat more than the minimum food budget) had a "food share" between .4 and .5 of total consumption expenditure (CEPAL, 1991; Table 8), giving credence to the applicability (at the poverty threshold) of the uniform criterion of doubling the value of the minimum food budget to allow for other basic needs. 3 For rural areas, the criterion of drawing the poverty line at 1.75 the value of the respective minimum food budget was also maintained.

Beyond the use of a standard procedure for obtaining them, ECLAC's poverty lines are country-specific to a degree that hinders international comparability. In particular, they represent different levels of real welfare inasmuch the underlying consumption budgets are of different purchasing power. In an attempt to overcome this inconvenience, defining poverty according to a uniform welfare level in all countries of the region, Psacharopoulos et al. (1993) used poverty lines representing US\$ 60 a month in 1985 purchasing power parity dollars (of private consumption) and defined an additional extreme poverty line at US\$ 30 per person per month in 1985 PPP dollars. 4

# 2. Selecting poverty lines for the long-term assessment of poverty.

The practice just reviewed provides us with alternative poverty lines for each country, drawn according to the food-share method but using different combinations of normative/behavioral criteria, and with a set of exogenously established (for international comparability) lines. Rather than attempting a new round of estimates, our purposes may well be served by selecting the poverty lines to be used from the existing sets.

However, these show in some instances wide differences (see Table A.1). Lines from Altimir (1979) lie in some cases (Colombia and Mexico) about 30% below those from

CEPAL (1991). The \$ 60 a month of PPP dollars (Psacharopoulos et al., 1993) represents around .7 of the corresponding CEPAL lines for Argentina and Chile, .6 in the case of Mexico and only .4 of the CEPAL poverty line for Colombia. On the other hand, the poverty lines drawn by INEGI/ CEPAL (INEGI, 1993) for Mexico are more than 20% higher than those previously drawn by CEPAL (1991).

All of these absolute poverty lines were drawn with the intention of establishing thresholds of minimum basic consumption needs satisfaction below which people are considered to be "poor", in the sense that they are deprived of fully satisfying those basic needs. This, however, implies a dichotomous partition of the population into poor/non-poor (deprived/non-deprived) with at least two important consequences. On the one hand, such a sharp cut-off assumes the certainty that those below it are deprived and those above it are not, whereas the probability of actually being poor (while certainly increasing when the level of resources decreases and being very likely high at the cut-off level) is in fact unknown. On the other hand, conceptually the partition itself involves all degrees of deprivation, from the slightest (just below the poverty line) to the most extreme (at the bottom of the distribution of welfare).

When reviewing these problems, along with the possible effects of measurement errors and the arbitrariness involved in drawing the poverty lines according to any of the current approaches, Ravaillon (1995) has suggested the practice of considering at least two poverty lines (-the lower one interpretable as an "ultra-poverty line"-) and has even made a case for considering points over a wide range of the distribution of consumption or income. Along similar lines, Lipton (1988) has argued for identifying as the "ultra-poor" the sub-set of the poor who are at serious nutritional risk.

The use of dual poverty lines has been standard in Latin American practice. Altimir (1982) assumed that those having barely enough resources to acquire the minimum food budget had a very high probability of widely failing to meet their nutritional needs, since the satisfaction of some other unpostponable basic needs would successfully compete for those resources. Consequently, the value of total private consumption equivalent to the minimum food budget was considered as the threshold for ultra-poverty, labelled as the "destitution line" (Altimir, 1982) or "indigence line" (CEPAL, 1991) 5

On the other hand, the differences between the levels of consumption represented by the poverty lines (and the corresponding indigence or extreme poverty lines) drawn by different authors can fairly be interpreted as differences in the austerity of the norm, which involve differences in the degree of deprivation or in the probability of those below it being severely deprived.

Taking advantage of those differences, a set of poverty thresholds was selected for each country, covering a wide range of income levels, from the available estimates, with a view both to assessing the long-term trend of poverty at different levels of resource insufficiency and to be able to analyze the dominant conditions of that trend. In all countries, ECLAC's (1991) poverty and indigence lines were used, 6 with a view to comparing the results of the present exercise with ECLAC's current estimates of the

incidence of poverty in the main countries of the region (CEPAL, 1997). Also in all of them, a poverty line of two dollars of purchasing power parity in 1985 7 per capita a day and the corresponding extreme poverty line of one dollar of PPP a day were used, both because they represented lower thresholds and for international comparability purposes.

8 However, in Colombia and Mexico those alternatives lie wide apart, for which reason another set of intermediate poverty and indigence lines was also considered. 9

For each country, altogether these alternative poverty and indigence lines constitute an array of thresholds representing different degrees of deprivation, ranging in value from 1 to 3 in Argentina and Chile and from 1 to 5 in Colombia and Mexico (See Table 1). The poverty lines of two dollars of PPP per capita a day represent between 15% and 18% of GDP per capita in all of the countries considered here, and the corresponding extreme poverty lines of one dollar a day between 7% and 10% of that average. 10 On the other extreme, the higher poverty lines amount to 20% and 25% of GDP per capita in Argentina and Chile, 33% in Mexico and as much as 43% in Colombia.

# 3. Drawing poverty lines back in time.

Comparisons of absolute poverty over time requires that poverty lines in terms of consumption have a constant purchasing power. For that purpose, a cost-of-living index appropriate for the poor should be used. One possible solution is to use a bundle of goods corresponding to the level of consumption at the poverty line (Lipton and Ravaillon, 1994). Lacking the information for applying such a criterion over the long periods covered in this exercise, the official CPI for food 11 was used in each case for backdating the minimum food budgets that were the basis of the estimation of the poverty lines selected. As far as the bundles of foodstuffs used in calculating them did not differ significantly from those consumed by households around the poverty line, this may be an acceptable proxy of the said criterion, at least for the urban area. 12

Minimum food budgets (used also as "indigence lines") estimated by ECLAC (1991) at 1988 prices for the capital cities or the urban areas were expressed at current prices for the reference periods of the income distribution data used in the estimates, by means of the CPI for food of each country. To obtain the corresponding minimum food budgets for non-metropolitan urban areas and for rural areas, the differentials (-5% and -25%, respectively) of the baseline were maintained, since for back years there is still less information on that regard.

Poverty lines for the same periods were obtained by applying to the minimum food budgets also the same coefficients used in Altimir (1982) for 1970 -on the basis of the evidence then available- and in the estimates of ECLAC (1991) for the eighties, after considering more recent evidence: 2 for urban areas and 1.75 for rural areas. This criterion of maintaining the relation between food and non-food basic requirements constant over time is highly debatable, even though it is common practice. For our purposes, this procedure was preferred to the alternative of using the general ICP for the poverty lines because: (i) the food/non-food relations in the weights of the CPIs were

considerably different from those of households around the poverty threshold; (ii) the bundles of non-food items in the CPIs were widely different from those of basic needs satisfactors implicit in the poverty lines; and (iii) the relationship between the minimum food budget and the respective poverty line would have been subject to the change in the relation between the prices of the bundle of foodstuffs (deemed as roughly representative of that faced by the poor) and the prices of the bundle of non-food goods (deemed as not being representative for the poor) and only to that change, without regard to the corresponding substitution effects and to contextual influences that may affect the food/non-food expenditure of the poor over time.

Assessing past deprivation according to contemporary standards becomes more dubious the farther we go back in time and the more rapid development has been in the interval. There is a strong case for shifting even absolute poverty lines over time, in the context of growth and societal progress, based on the relation of needs to the prevailing style of living. 13 On the other hand, the absolute nutritional core of human deprivation may be considered less related to that context. To take both circumstances into consideration, poverty lines (though not indigence or extreme poverty lines) set for the eighties were alternatively shifted backwards applying positive elasticities with respect to changes of real per capita income. 14

Since this procedure intends to incorporate the effect of rising incomes and societal change on needs and consumption behavior, the resulting relationship between the (constant) indigence lines and the (shifting) poverty lines represents a simulation of a changing food/non-food relationship in defining poverty lines, instead of the invariant relationship assumed in our basic estimates. In the rapid growing economy of Mexico, this shifting of the poverty norms would imply that poverty lines applicable to the fifties should have amounted to around one and a half times the (constant in real terms) basic food budget, instead of twice the amount as in the late eighties. In the other three countries, the difference should have been somewhat less, but nonetheless significant. 15

#### 4. Selection of income distribution estimates.

Income distribution statistics available in Latin America have traditionally originated in: i) labor surveys, carried out once or more times a year, ii) occasional supplementary income surveys, iii) infrequent income and expenditure surveys; iv) those few population censuses that inquired successfully about incomes; and v) more recently, in some countries, surveys of living conditions or access to public services and infrastructure. 16 In Argentina and Colombia, estimates have also been obtained by combining different sources of data on income.

Surveys of national coverage (including rural areas) are not the rule, except for Mexico, where there is a long-standing tradition of carrying out income and expenditure surveys with national coverage. Moreover, in some countries (like Argentina or Chile) only income data covering the metropolitan area of the capital city is available for long periods of time.

On the other hand, the measurement of income in different types of surveys is subject to a number of non-sampling errors which affect the accuracy of both the mean and the shape of the distribution in varying degrees.

Therefore, in order to obtain poverty measurements of *comparable accuracy* (even though this accuracy may be less than that required of current measurements for policy purposes) to analyze long-term trends, it was deemed necessary first, to select for each subperiod surveys as comparable as possible and second, to take into account the differences in the underestimation of income of even otherwise similar surveys. Previous work on income distribution in these countries (Altimir, 1981, 1982b, 1986, 1987 and 1994) provided insights on the reliability of available income distribution measurements and also helped in making a selection. This, for each country, considering the type of surveys (or of multi-sources estimates), geographical coverage and relative reliability of available results, is summarized in Table 2. The selection also excluded data for years of recession, in order to better approximate the underlying trends in "normal" times.

# 5. Accounting for income underestimation.

Estimating the incidence of poverty by applying independently valued poverty lines to income distributions that are subject to different degrees of income underestimation would not only result in exaggerating incidence but, even more important for our purposes, in incomparable estimates of poverty.

One way to obtain an assessment of the degree of incomes underestimation in available distributions is by comparing them with the corresponding (i.e.: conceptually similar) national accounts averages (Altimir, 1987). The discrepancies between surveys' mean income and the equivalent income concepts derived from national accounts have been calculated by ECLAC for most available surveys in the postwar period. 17

In order to account for income underestimation, indigence and poverty lines applicable to each income distribution were adjusted downwards (when necessary) according to the discrepancy with national accounts calculated by ECLAC for that distribution. This procedure assumes the same proportion of income underestimation along the entire distribution. Therefore, it may involve some downward bias in estimating the incidence of poverty, as far as income underestimation may actually either increase with income or at least be different for different types of income (with unitary income elasticity for each of them) as assumed in Altimir (1987). However, that the incomes of the poor are better reported that on average is by no means certain.

# 6. Adjusting for differences in the distribution by total household income and by per capita household income.

Poverty lines are drawn in per capita terms. A household is considered poor if its per capita income falls below the line. That is how the incidence of poverty among all households is determined in the ECLAC estimates published in the *Social Panorama* 

(Annex Table A.4), which are the benchmark for the present estimates. However, very few of the statistics on income distribution for the past are in terms of per capita household income; most rank households by total household income or even refer to the distribution of earners by size of their personal income.

The ranking of individual households by their total income is very different from the ranking of the same households by their per capita income. However, the aggregate distribution of households by relative -to the mean- per capita income, being generally less concentrated than that by relative size of total household income, usually is not of a shape so utterly different from this last. Nevertheless, transforming one into the other by means of the average size of all households would introduce a bias when estimating the incidence of poverty, not only because of the possible differences between both frequency distributions, but also because households in the neighborhood of the poverty line are of a size different from the average.

There is enough empirical evidence that, while household size decreases with per capita income, it increases with total household income. The analysis of the relevant data from a number of household surveys carried over the last two decades in Latin American countries revealed pretty stable less-than-unitary relations between the mean size of households in each of the lower decile groups of the distribution of households by total income and the average household size. 18 Consequently, the per capita indigence and poverty lines were transformed into per household lines by adjusting the average household size of the survey by the coefficient corresponding to the relevant decile. 19

In those cases (Colombia, at the national level) in which it was necessary to base the estimates on the distribution of income among income earners, a similar transformation was made, from a per capita to a per earner poverty line, by considering average persons by household earner. In this case there is also evidence that the number of earners in the household increases with total household income, but there is not enough of it on which to base a similar adjustment function. Therefore, in those cases there is a bias toward overestimating the incidence of poverty *vis à vis* the estimates based on the distribution of household income, although it may not affect their comparability over time

#### 7. The poverty measure.

The long-term trends of the evolution of poverty are assessed by means of the incidence of poverty (i.e.: the proportion of households below the poverty line or head-count index). As it is well known, this index is insensitive to the depth of poverty. Other measures reflect how far the average income of the poor is from the poverty line (as the poverty gap does) or the severity of poverty amongst the poor (like the Foster-Greer-Thorbeke P(2) measure).

However, it was deemed inappropriate to estimate these other measures, considering the limitations of the data being used and the *ad hoc* procedures devised for estimating the proportion of the poor with a degree of accuracy (or inaccuracy) that admits at least its comparability over time. In particular, the unavailability in most cases of data on the

entire distribution of the poor according to their per capita income and the possibility that income underestimation (being different in different surveys) may not be proportional along the income axis, impaired the comparability of such measures over time.

Nevertheless, the use of several poverty lines, of different severity, according to which the incidence of poverty has been alternatively estimated, in a way (conceptually less rigorous than the above mentioned measures) permits the analysis of the evolution of a wide spectrum of poverty situations.

# 8. Indices of the evolution of poverty and benchmark estimates of poverty incidence.

The estimates of the incidence of poverty among households (in annex Tables A.5 to A.8) obtained by the procedures described above are intended to provide comparable measurements, based on alternative poverty criteria, on the basis of which the trends of poverty over a long period of time can be assessed. For that purpose, and considering the relative accuracy of those measurements, each series has been expressed as an index, with the base in the first "normal" (i.e.: non recessive) year for which there is a benchmark estimate.

ECLAC's estimates of the incidence of poverty for the eighties and early nineties in the *Social Panorama* (ECLAC, 1997), which were obtained by processing all households according to their (adjusted) 20 per capita income and using the ECLAC poverty and indigence lines, are considered as *benchmark estimates*. The corresponding estimates in the series (Annex Tables A.5 to A.8) using the ECLAC lines for the same years and based on the same surveys are in most cases close to those benchmarks, but do not coincide with them because the data were treated with the same procedures used for earlier periods, for the sake of comparability over time. 21

Each series of incidence estimates for a given geographic coverage and the index built upon it correspond to a different definition of absolute poverty, inasmuch as it originates in applying a different poverty or extreme poverty line to the same distribution data. Thus, incidence estimates in Annex Tables A.5 to A.8 for a given year somehow stratify the poor from the broadest to the strictest criterion of deprivation, as concentric circles of poverty.

On the other hand, the indices in Tables 3 to 6 depict the trend of each particular definition of poverty. In general, these trends may and do differ, reflecting changes in the distribution of income affecting the proportions suffering from different degrees of deprivation. There are different ways of looking for the "general" trend of absolute poverty over the long-run and for its changes in specific subperiods. One way is to focus on the index corresponding to the more ample definition of poverty, considering those corresponding to the other definitions or degrees of severity as indicative of differential trends within the universe of the poor. Another way is to observe the trend of the average of indices corresponding to the different deprivation criteria as representative of changes in all shades of poverty. But in any case it is necessary to analyze the possible ambiguity

of the trend; as we are using the headcount ratio for different points of the poverty spectrum, it is possible to analyze the first-order dominance[i.e.: only if the incidence of poverty according to all definitions (cut-off points on the "poverty incidence curve") 22 changes in the same direction, the change or trend is unambiguous].

# **B.** Country trends

In 1980, an estimated 35% of Latin American households (25% of those in the urban areas and 54% of rural households) were in poverty and 15% in extreme poverty, according to ECLAC standards. 23 After the critical and eventful decade of the eighties, the incidence of poverty in the region had increased to 41% of households. Economic recovery across the region in the early nineties reduced it only slightly, to 39% (with 17% of households in extreme poverty) in 1994. Thus, more than 200 million people live on incomes below those poverty lines, almost half of them in extreme poverty. Moreover, in contrast with 1980, almost two thirds of Latin American poor (and more than half of the indigent) now live in urban areas (ECLAC, 1997).

In this context, the four countries we are considering here are differently situated. Colombia and Mexico, with an incidence of poverty exceeding or just below 40% respectively, belong to a class with Brazil and are therefore near the regional mean, to which they contribute significantly. Chile, which for some time belonged to that class, has recently improved its poverty incidence into a more moderate degree, comparable with the one traditionally held by Costa Rica. Argentina, in spite of its recent slide into significant poverty, still exhibits, along with Uruguay, one of the lowest incidences of the region. (See ECLAC, 1997; Table 16.) These, however, reflect the present stage of long-term processes of evolution and change that the economies and societies underwent. The purpose of this paper is to access the consequences of these changes on the evolution of poverty.

The evolution of poverty, as measured by its incidence (i.e.: the head-count ratio) is dependent on the growth of the economy, since it affects the relationship between the absolute poverty line and the average income, and on changes in the distribution of income that affect the proportion of units that fall below the poverty line. Thus, changes inequality have an effect on poverty as far as they involve changes in the relative position of the groups at the bottom of the distribution *vis à vis* those in the other echelons of the distribution.

Growth in Latin America has been significant between 1950 and 1980 (2.7% per capita a year for the region as a whole). However, the four countries have grown, on average, at different speeds (Mexico, at 3.4% per capita a year, Colombia at 2.3%, Argentina at around 2% and Chile at 1.4%) and with contrasting steadiness (Colombia and Mexico, quite steadily; Argentina and Chile, with disruptions and instability or severe fluctuations). The regional crisis of the eighties led to a recession in all of them (in different degrees and duration) except Colombia. All four eventually recovered, although

to different degrees of sustainability of growth, with Chile and Colombia growing at almost 4% per capita in the recent years and Argentina and Mexico plunging again into recession.

On the other hand, income inequality - traditionally very high in the countries of the region - in the fifties was considerably higher in the labor surplus economies of Colombia and Mexico than in land-abundant Argentina, with Chile was an intermediate situation. In the first two countries, inequality rose even more during the fifties and sixties, when it began a decline that reached previous levels by the end of the seventies. In Argentina and Chile, inequality crawled upwards during the fifties and sixties, but increased in both countries increased significantly during the seventies (Altimir, 1994).

During the crisis of the eighties, different combinations of external shocks, policy failures and recession brought about increases in inequality in Argentina, Chile and Mexico, while a mild recession and steady policies in Colombia allowed for a decrease of inequality. Subsequent recovery induced decreases of income inequality, but at the end of the crisis (i.e.: when economies were again growing at full-capacity), at least Argentina and Mexico had degrees of inequality wider than before the crisis, and Chile had to wait for further sustained growth and progressive policies to barely recover pre-crisis levels of inequality (Altimir, 1996).

Trends of absolute poverty have been obviously affected by the evolution, just sketched, of growth and equity. To at least avoid the effect of cyclical fluctuations blurring the longer-term trends of absolute poverty, only years in which the economies were closer 24 to their potential growth path were considered.

# 1. Colombia: poverty-reducing growth.

In 1964, at the culmination of a quarter century of moderate growth with increasing inequality (Londoño, 1995), the incidence of poverty at the national level had been reduced only slightly, but unambiguously; it was lower at the different levels of deprivation considered here. Accepting that the incidence of poverty in 1938 was somewhat higher than in 1951, development during WWII and its aftermath brought about some improvement to the situation of most poor. 25 In this light, the advances of the subsequent period, between 1951 and 1964, look meager, even for the poorest 26 (See Table 3).

Distributive improvement and accelerating growth steadily (and unambiguously, since the reduction occurred at all levels of deprivation) reduced the incidence of poverty in the late sixties and in the seventies. By 1978, incidence of the more ample definitions of poverty had dropped a third or more from its 1964 levels and extreme poverty had been reduced by more than half or even by two thirds (depending on the yardstick we follow.)

The abatement of poverty in the urban areas was no less spectacular and also relatively more intense at the lower end of the distribution.

During the slowdown of the eighties, the incidence of poverty continued to decrease, at the national level at least, <u>28</u> albeit more sluggishly and not so definitely, since the most extreme poverty (i.e.: below one PPP dollar a day) increased somewhat. However, the incidence of poverty and indigence in the urban areas may have remained approximately constant, both according to ECLAC <u>29</u> and to DNP. <u>30</u> Further progress was achieved in 1993, when the incidence of poverty and extreme poverty in the urban areas appears to have been significantly reduced, <u>31</u> which was also reflected in considerable and unambiguous reductions at the national level. (See Table 3).

Therefore, the long-run record of the Colombian economy and society is one of strong poverty-reducing growth. Beyond the changes of pace just outlined, the incidence of all shades of income poverty has significantly and steadily decreased over the more than half a century between 1938 and 1993. Moreover, the greater reduction has been in the area of extreme poverty: however defined, it has dwindled to a fifth of what it was in the pre-war years (or a fourth of the 1951 levels), affecting at present at most one sixth of households. However, the incidence of poverty defined at more moderate levels has also significantly decreased over the long run to a half or less of what it was in 1951 when, according to contemporary standards, it would have included at least three quarters of the population. Even allowing for the effects of long-term development on poverty lines, current moderate poverty incidence would be around one half of what has been estimated for fifty years back (see Table 3).

In addition to the effects of growth and labor market developments that lie behind this evolution of poverty stemming from the primary distribution of income 32 successive social policies since the seventies have had a significant progressive impact on the distribution of welfare and, hence, on poverty. Both the increase of real social expenditures and their better targeting had improved the secondary distribution of income in favor of the lower strata 33

### 2. Mexico: an interrupted trend of poverty reduction.

During the fifties and early sixties the Mexican economy grew at a significant rate (2.8% per capita a year) while inequality was increasing (Altimir, 1982). In that phase of unequal growth the incidence of poverty decreased only modestly (about 20%, for most definitions) and that of extreme poverty may have even increased. Moreover, accounting for the influence of growth on poverty norms (i.e.: shifting poverty lines) the incidence of poverty more amply defined would have been reduced by only a seventh, while the proportion of households below a more severe line 34 would not even have changed.

However, in the sixties growth accelerated and inequality peaked, to start a progressive improvement that stretched over the seventies. In the process, the incidence of extreme poverty was reduced to less than a half its previous level and incidence according to the more ample definitions decreased to about two thirds of what it was in 1963. Even considering the possible influence of the rapid (3.4% per capita) growth of the 1963-1977

period on the definition of poverty, the incidence according to the most ample definition would have been reduced by 25%. (See Table 4.)

Between 1977 and 1984, a period which includes the slowdown of the early eighties, the reduction of extreme poverty continued apace, due to distributive improvement, while the incidence of a more general concept of poverty diminished more modestly. The ensuing period of recession and adjustment brought about a considerable increase in inequality and an unambiguous increase in poverty at all levels 35. By 1992, however, economic recovery (per capita income had regained the 1984 level) improved the lot of the poor, bringing down the incidence of poverty and extreme poverty to about the 1984 levels.

Overall, the combination of high growth and distributive improvement in the sixties and seventies has been responsible for two-thirds of the reduction in poverty and extreme poverty recorded in Mexico since 1950. During the sixties the decreases in the incidence of poverty and particularly of extreme poverty in the urban areas was relatively more intense than the corresponding decrease in the rural areas. On the contrary, reductions of poverty incidence (and particularly of extreme poverty) in the seventies were relatively more intense in the rural areas, whereas the abatement of urban poverty proceeded at a slower rhythm (see Table 4). On the other hand, the crisis of the eighties hit harder on the urban poor, and relatively more on the moderate poor than the poorest.

Social expenditure had an undisputed redistributive effect in the seventies, at the very least by the expansion of its level, if not by targeting the poor <u>36</u> This should have contributed, on top of the improvement of the distribution of primary incomes, to an even grater progress in living conditions. On the contrary, the fiscal crisis of the eighties may have affected the poor more, since the cuts and restructuring of public expenditure did not always focus on the needs of the urban poor or of rural communities (Friedman, Lustig, and Legovini, 1995). However, from 1989 onwards targeted antipoverty programs were put in place, but neither their actual impact nor their maintenance after the 1995 crisis can be readily assessed.

In summary, the trend of significant poverty reduction over the whole postwar period was interrupted in the eighties and has not yet reappeared. Moreover, the redistributive effects of social policies were largely suspended, with additional negative consequences on living standards, while it is difficult to ascertain the degree in which the actual short-term 37 impact of the new social policies on the poor has significantly dented the incidence of poverty.

# 3. Chile: restoring a broken trend of poverty reduction.

The trend toward the reduction of poverty incidence in the urban areas of Chile, which was manifest in the fifties, gained momentum during the sixties. Poverty at all levels of deprivation was approximately halved between 1957 and 1968. Even shifting poverty lines to account for the influence of an average per capita growth of 1.8% a year would

imply that the incidence of poverty, according to the more ample definitions, was reduced by a third during that period (see Table 5). Though there is no equivalent data for the rural areas, it is widely recognized that rural poverty may have also been reduced, as a consequence of the agrarian reform undertaken since 1965 (Ffrench-Davis, 1991).

Until the early seventies, public social spending and social services expanded considerably. Even though this process was heavily influenced by the pressure of middle-class groups and unionized workers, significant amounts of social expenditure also favored the poor, which was reflected in the rapid improvement of social indicators (Raczynski and Cominetti, 1994).

In the seventies, institutional disruption, an economic recession and a change of regime that included unfavorable rules for the workers and labor repression broke the previous trend and dramatically increased the incidence of poverty. By 1978, poverty in the urban areas had unambigously increases; its incidence at moderate levels had about doubled and the incidence of extreme poverty had been multiplied by 2.5. Two years of booming growth (at almost 6% per capita a year) improved the situation by 1980, returning the incidence of poverty to double its 1968 levels and that of more ample poverty to less than double its previous levels.

During the crisis of the eighties the incidence of poverty increased further, albeit temporarily. The deep recession (almost 20% in per capita terms in the bienium 1982/83) brought about unprecedented open unemployment (more than a quarter of the labor force in Greater Santiago) and a significant fall in real wages. The incidence of poverty may have increased by a fifth (Pollack and Uthoff, 1987).

The reforms of the seventies and eighties included a restructuring of public services and a change in the conception of social policies (Raczynski and Cominetti, 1994). The shrinking of the State, limiting its intervention, targeting and shifting responsibilities to the private sector became the tenets of the new strategy. Total fiscal spending on the social areas was drastically reduced (10% in per capita terms) in the second half of the seventies. Significant enhancement in the eighties was mainly due to the fiscal cost of reforming the pension system to make room for private pensions; in 1987, real per capita fiscal expenditure in education was 20% lower and in health it was only as half the level of 1974 (Mujica and Larrañaga, 1992). These reductions have no doubt affected the living conditions of the poor. However, this effect was to certain extent offset by improvements in targeting social expenditure by means of specific programs. 38

By 1987 the economy had recovered and was again functioning at close to full capacity. After the positive effects of recovery on real income and its distribution, the incidence of urban poverty, at all levels of severity, was still slightly higher than in 1980 and, therefore, more than twice the 1968 incidence of extreme poverty and more than 50% higher than that of more ample definitions of poverty. At the national level, the comparison between the situation in 1987 and that of 1968 appears somewhat less unfavorable in the urban areas, as a reflection of the improved conditions in some agricultural areas. (See Table 5.)

Sustained economic growth at more than 5% per capita a year and better working conditions in the early nineties restored the previous trend toward the abatement of poverty. Benchmark estimates indicate a reduction of the incidence of poverty (ECLAC) at the national level between 1987 and 1994, from 39% to 24%, and of indigence or extreme poverty from 14% to 7% of households. Urban poverty correspondingly decreased from 38% to 24% (urban indigence, from 14% to 6%) and rural poverty, even more spectacularly, from 45% to 26%. Thus, it is only in the early nineties the levels of poverty and extreme poverty incidence have matched (or even improved upon) those attained in the late sixties.

The change in 1990 to a democratic regime brought also about a change of emphasis in social policies, from assistance to investment in human capital, and increases of social expenditures (on the basis of a specific tax increase for that purpose) while maintaining and improving targeting mechanisms. Social policy, mainly through spending in education and health, has tended to increasingly correct the unequal distribution of income; while monetary incomes of the richest quintile were in 1990 thirteen times those of the lowest quintile, income adjusted by social expenditure reduced that relation to nine times. By 1994, that relation had been further reduced to 8.6 times (Cowan and De Gregorio, 1996).

# 4. Argentina: the emergence of poverty in a faltering economy.

In the fifties, absolute poverty in Argentina had become a marginal phenomenon: it involved a couple of percentage points of the population, and indigence was not significant. Moreover, the incidence of poverty in the rural areas did not reach one tenth of the rural population. Even relative poverty 39 had been reduced to less than a tenth of households.

With moderate growth (2.3% per capita a year in the fifties and 3.2% in the sixties), the creeping increase of inequality gradually enhanced the incidence of poverty in urban areas, 40 that by 1970 had reached between 3% and 4% of urban households. 41 After a temporary reduction in 1974/75, during a populist interregnum, by 1980 the incidence of poverty in the urban areas had doubled with respect to 1970, after a period of slow (1.5% per capita a year, on average) and unstable growth, deep political conflict, attempts at liberalization and labor repression. Benchmark estimates indicate that about 7% of households were then in poverty (ECLAC line). 42 However, extreme poverty was still of marginal importance, affecting around 2% of urban households (see Table 4).

The crisis of the eighties and the hyperinflation with which it culminated in 1989 considerably deteriorated the distributive situation and dramatically increased the extent of poverty. The magnitude of external shocks and ensuing adjustments with increasing labor underutilization brought about a further increase of poverty incidence, that by 1986 (a year of stability and partial recovery) affected 12% of urban households. At the peak of hyperinflation and through the recession, in 1989, the incidence of poverty may have temporarily doubled and that of indigence became significant. 43 However, by 1992, amid rapid recovery and disinflation, the incidence of poverty had regained the 1986

levels. Further growth in the next two years (at 5.3% per capita), which brought the economy near its potential product, in a context of drastic reforms that changed the economic regime, with almost absolute price stability and a surge of capital flows, did not make a dent in poverty, because income inequality reached unprecedented levels, 44 in 1994 the incidence of poverty remained at 12% of urban households, with around 2% in extreme poverty (see Table 6).

Having been reduced to levels comparable with those of developed countries, absolute deprivation in postwar Argentina was not -even when assessed by present standards-more than a marginal social problem. However, mainly due to the increasing volatility of growth and inflation and the effects of a succession of conflicting -and eventually unsustained-policy changes, poverty crept upwards in the seventies. Even so, it was the chain of events unleashed by the crisis of the eighties, including a succession of failed policies and eventual radical restructuring, which produced the emergence of poverty in significant proportions, even in normal times. Being still comparatively low by Latin American standards, poverty has thus become a pressing social problem for Argentine society.

Consequently, until the eighties, targeting the poor was not a priority of social policy. Until then policies had been deployed with the aim of universal protection and actually reached effectively more the middle strata and unionized workers and which did not include specific programs coordinated to reduce (gradually increasing) structural poverty. Macroeconomic instability and the fiscal crisis of the eighties led to significant fluctuations of real social expenditure 45 but not to social policy reform; poverty relief initiatives (like the national food program) attracted some attention, but lacked a comprehensive approach and the otherwise unchanged structure of social expenditure did little to compensate for the rapidly increasing incidence of poverty (Beccaria and Carciofi, 1995). Stabilization and policy reform in the nineties included social policy reforms along two main dimensions; decentralization and private provision of services, and were prompted mainly by financial and budgetary reasons. With real per capita social expenditure expanded to a new peak (ECLAC, 1997; Table IV.1), growing concern about the now significant and permanent magnitude of poverty in Argentine society has been slowly translating into specificly targeted programs, the actual impact of which is still to be assessed.

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- 2 To consider these choices in the framework of the many conceptual issues involved in measuring poverty, see Lipton and Ravaillon (1994).
- 3 Even accepting that a non-food share for the poor somewhat lower than that of the "reference group" may be justified on the basis of covering only "basic" needs, a uniform procedure for all countries in the region results in a comparative underestimation of poverty in those countries with higher real income.
- **4** Thus maintaining the relationship established by Altimir (1982) and CEPAL (1991) between the "moderate poverty" line and the "extreme poverty" line. Psacharopoulos et al. (1993) also adopted the urban-rural price differentials used in those previous studies.
- **5** Psacharopoulos et al. (1993) also set "extreme poverty" lines at half the value of the corresponding poverty thresholds (i.e.: \$ 30 PPP dollars of 1985, for international comparability).
- **6** In the cases of Chile and Mexico, these are also the thresholds used for the official estimates of poverty by MIDEPLAN and INEGI, respectively.
- 7 The PPPs for private consumption from Summer and Heston (1988) were used in each case.
- **8** These were also the lines used in Psacharopoulos et al. (1993), except that they were set to the period of estimation by those authors using the general consumer price index (see below).
- **9** In the case of Colombia, the lines set in Altimir (1979) were used. In the case of Mexico, those based on a stricter food basket (CEPAL, 1991) were used.
- 10 This is not surprising, since the per capita GDP of the four countries draw nearer, when expressed in the purchasing power parities estimated by Summer and Heston (1988).
- 11 According to the latest update in ECLAC's data base (CEPAL, 1996a). In the case of Chile, the official CPI was corrected for underestimation during the period 1971/1978 in accordance with the corrections estimated by Cortázar and Marshall (1980).
- 12 A recent sensitivity analysis by ECLAC (1996b) of the influence of different methodological options on its poverty estimates for Chile, showed that the extrapolation to 1994 of the basic food budget for 1987 by means of the official ICP for food rendered a value only 1.3% below the one obtained by its normal procedure of valuing the basic food basket with the average of prices collected for each foodstuff included in that basket.
- **13** As originally advocated by Bardhan (1970) and Dandekar and Rath (1971) [quoted by Ravaillon (1995)] and discussed in Altimir (1981, 1994) and Sen (1983).
- 14 As indicated by Ravaillon (1995), there is not enough evidence for developing countries on which to base an estimate of such an elasticity. Consequently, and for sensitivity purposes, two arbitrarily selected elasticities of .3 and .5 were used. Shifting was applied only upwards with growth, assuming that recession did not depress standards.
- **15** In fact, the coefficients for the early fifities would have been: 1.8 or 1.7 in Chile -depending on the elasticity assumed- 1.7 or 1.5 in Argentina and Colombia and 1.6 or 1.4 in Mexico (See Table A.3).

- 16 Like the LSMS developed by the World Bank and carried out in Peru or the CASEN survey carried out biannually in Chile.
- **17** Including CEPAL (1987b) for Argentina, CEPAL (1987a) for Chile, CEPAL (1986) for Colombia, CEPAL (1988) for Mexico and CEPAL (1989) for eight countries.
- 18 The estimated relations were: .826 for the first decile group, .903 for the second decile, .953 for the third one, and close to one for the fourth and fifth deciles, in all cases with low variances.
- 19 Applying the same procedure to the results of recent surveys in which both the distribution of households by per capita income and by total income was available, as well as the alternative of transforming the per capita line to a household basis by means of the average size, showed that: (i) the second procedure overestimated poverty incidence between one and two fifths of the incidence estimated on the distribution by per capita income and (ii) the procedure adopted reduced that overestimate at least by half, in some cases completely and in some other even produced a slight underestimation.
- **20** Adjustment of the income of households for underestimation is done according to the procedure first proposed in Altimir (1987), which considers the underestimation of each type of income as equivalent to the shortfall of the mean income of that type with respect to the corresponding mean from the national accounts and assumes that the degree of underestimation (and, therefore, the adjustment) is constant for each type of income.
- 21 Therefore, in those cases it would be fair enough to apply the indices corresponding to the ECLAC poverty lines to the benchmark estimates for the base year in order to obtain a rough approximation of the incidence of poverty -according to that standard- in a distant period.
- **22** See Ravaillon (1995).
- 23 Psacharopoulos et al (1993) estimated that in 1980 close to 27% of the population lived below the 60 PPP dollars line.
- **24** At least, locally, in the sense that the years selected were not of recession. On the other hand, abnormal non-seasonal fluctuations that may have affected the distribution of incomes could anyhow blur the assessment of poverty trends.
- 25 With contemporary standards, the incidence of poverty in 1951 would have been as much as 84% using the CEPAL moderate poverty line, 75% using the less generous Altimir line, and even 45% using the 60 PPP dollars of 1985 line. This highlights the need for shifting poverty norms along with growth; using a .5 elasticity, poverty incidence would have been 75%, 32% and 30%, respectively, with extreme poverty at 15% of households, when using the 30 PPP dollars yardstick.(See Table A.6)
- **26** Moreover, shifting poverty lines with growth, the incidence of poverty at the low end of the distribution would have not been reduced in this period.
- 27 In 1978, extreme poverty or indigence at the national level is estimated at 27%, 14% or 5%, depending on the severity of the extreme poverty line (See Table A.6). On this respect, it should be noted that the 30 dollars of PPP did not cover, in 1988, more than 40% of the minimum food budget estimated by ECLAC or a mere half of the more austere one estimated by Altimir (1979). (See Table 1.)
- 28 And based on Londoño's estimates (Londoño, 1995) of the distribution of income in Colombia.
- 29 See Annex Table A.4.

- **30** See Pérez, Lasso, Parra and Rivas (1996). DNP uses a set of poverty lines that is, on average, 20% higher than ECLAC's poverty line for the urban areas. Although its minimum food budgets average 10% less than that used by ECLAC.
- 31 According to estimates by DNP, the incidence of poverty in the seven main cities was reduced by more than a quarter, and that of indigence by half, between 1992 and 1993 (Pérez, Lasso, Parra and Rivas, 1996). ECLAC's estimates for these years are not comparable, since starting in 1993 the sample was enlarged to cover most of the urban population, for which the incidence of poverty is higher than that estimated for the main seven cities. (See Annex Table A.4)
- 32 It must be noted that distribution statistics do not capture rents from drug trade and from other criminal activities, that are important in the case of Colombia. Their probable regressive effect is increasing with their importance (Londoño, 1997), although it is difficult to assess their possible impact on poverty, beyond the visible one of dislocation of rural communities and mass exodus.
- **33** Londoño (1997) estimates that the evolution of social expenditure between 1970 and 1995 has reduced by 1.6 points the Gini coefficient of the distribution of income; half of it is attributable to the level and composition of social expenditures and the other half to their better targeting.
- **34** That is equivalent (shifted) to 60 PPP dollars in 1985.
- 35 Lustig and Mitchell (1995) finds that, using survey data corrected for underreporting, poverty rises between 1984 and 1989 for all the poverty lines proposed by different authors. See also ECLAC's estimates for those years in Annex Table A.4.
- **36** Social and rural development expenditures increased from 5.8% of GDP in 1970 to 10% in 1977 and 12.8% in 1981, falling later to 9% in 1984 and 7.2% in 1989 (Friedman, Lustig, and Legovini, 1995).
- **37** As opposed to the longer-term impact of social policies on the structural conditions in which poverty originates.
- **38** In 1987, the lowest quintile of the population received 33% of actual fiscal social spending (excluding entitlements to pensions), but as much as 50-60% in the case of targeted programs, which certainly represented a minor proportion of total fiscal social expenditure (Haindl et al, 1989).
- 39 As measured by Fuchs' criterion of setting the relative poverty line at .5 the median income.
- **40** However, it cannot be ruled out that the estimates for 1953 and 1961 underestimate somewhat the incidence of poverty, because they are based on income distributions built up from multiple sources, that may not completely take into account the intra-group dispersion of small groups of similar recipients (Altimir, 1986).
- **41** After 1961, there is no consistent data about the distribution of rural or agricultural incomes.
- **42** Our estimate using the 60 PPP dollars poverty line is about 4% of incidence, for 1980 and almost insignificant amounts going back in time (see Annex Table A.5), which highlights the irrelevance of this yardstick for assessing the extent of poverty in a country like Argentina.
- **43** In such circumstances, the accuracy of any measure becomes uncertain. Official estimates put the incidence of poverty in October 1989 at almost twice the level reached in May 1988, which was certainly higher than the one prevalent in 1986. By May 1991 it was already below the 1988 level, decreasing further until October 1992 (Ministerio de Economía, 1994).
- **44** See ECLAC (1997, Table 23).

**45** Real per capita social expenditure in 1990 was 25% lower than the maxima reached in 1974, 1980 and 1987, but the average for the eighties was considerable higher than that of the seventies (Beccaria and Carciofi, 1995).