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The multiple dimensions of poverty in Latin America[1]

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Summary

Using a multidimensional poverty index to quantify poverty provides a complementary view of the phenomenon in the region. Although poverty fell between 2005 and 2012, some 28% of the population continue to suffer from simultaneous deprivations in different dimensions of well-being. To assess these dimensions for Latin America, it is necessary to broaden the analysis beyond basic lacks and look at shortfalls in areas such as employment and social protection.

This section presents the findings of an analysis of 17 countries in Latin America using a multidimensional poverty index. This index builds further on the exploration of different dimensions and thresholds of poverty made in the previous edition of *Social Panorama* (ECLAC, 2013), and is the product of a joint effort between ECLAC and the Oxford Poverty and Human Development Initiative (OPHI).

This multidimensional index has three main innovations with respect to previous poverty measures in the region: (i) the addition of monetary and non-monetary dimensions, so as to minimize errors of inclusion and exclusion in identifying the poor; (ii) the consideration of deprivations in terms of employment, social protection and schooling gap, thus widening the set of dimensions commonly used to measure poverty in the region; and (iii) the inclusion of new deprivation cut-offs for the commonly used dimensions with a view to defining standards that better reflect the current regional reality (for more details on the index, see Santos and others, 2015).

This new index represents an attempt to provide the region with a useful instrument to monitor public policies and reflect situations in which deprivations in various aspects of well-being occur simultaneously. However, although the index seeks to make the best possible use of information available in household surveys in the countries, data limitations

[1] The index presented in this section and its findings are based on Santos and others (2015).
[2] Xavier Mancero. The text corresponds to a section of chapter I of the Social Panorama of Latin America 2014 (ECLAC, 2014).

remain a major drawback. Making progress in the multidimensional measurement of poverty in the region entails not only stepping up efforts to increase the availability and quality of information, but also ensuring that these efforts give rise to greater harmonization of the concepts and tools used for data collection.

This section is structured as follows: first, the conceptual framework on which the index was built is presented, then the basic rationale for the selection of dimensions, indicators and cut-offs included in the index is explained; third, the structure of the index is described, including the weighting of the various dimensions and the value used for the multidimensional poverty cut-off, as well as the justifications for those decisions. Lastly, the main empirical findings obtained by applying the index are presented and discussed.

I. Background and basic concepts

There are currently a great many reasons for working towards building a multidimensional measure of poverty. These include: (i) the spread and prevalence of new conceptual frameworks for development and well-being, as well as the rights- and capabilities-based approaches, in which income shortfall is only an incomplete proxy for standard of living, and (ii) the availability of new methodologies that have overcome some of the obstacles to the inclusion of various dimensions of poverty in an index (Alkire and Foster, 2007, 2011).

This new context has been reflected in the increasing number of multidimensional poverty indices involving several countries of the region,[3] as part of initiatives supported by the national governments and international agencies. ECLAC, continuing in its pioneering tradition in multidimensional poverty measurement in Latin America, has developed a multidimensional child poverty index grounded in the rights-based approach (ECLAC/UNICEF, 2010) and exploring the various dimensions of poverty and poverty thresholds for the entire population of the region (ECLAC, 2013).

Continuing in this vein, this section provides the findings of an examination of 17 countries in the region using the multidimensional poverty index. This index comprises non-monetary and monetary dimensions, including indicators of deprivations in respect of employment, social protection and schooling gap, and proposes new thresholds for the dimensions traditionally considered in measurements of poverty. The index was developed to make best possible use of information from surveys in the countries of the region, with a view to providing the region with an instrument to monitor public policies that is comparable between countries and can be applied to its entire population and used continually over the long term, as noted above.

The index used here incorporates elements from the capabilities-based, rights-based and unmet-basic-needs (UBN) approaches because they can be used in a complementary manner as they capture different aspects of deprivation. The rights-based approach describes the institutional means necessary for achieving well-being, while needs and capabilities —or functionings— are a way of describing and expressing the various constituent parts of well-being. The guaranteed exercise of rights enables people to satisfy their basic needs and function at a basic level. If their basic needs are not met or if they are prevented from performing essential functions, however, people will be less able to exercise their rights, which entrenches poverty reproduction (ECLAC, 2013).[4]

There are also practical reasons for combining complementary approaches. Although the capabilities- and rights-based approaches are clearly valid from a conceptual perspective, in practice household surveys capture lacks or deprivations, of which some may be interpreted simultaneously as constraints on meeting needs, as proxies for infringements of rights or as obstacles to the performance of functions (ECLAC, 2013). A direct measurement of these functions may require information which cannot be obtained through surveys or, even where such measurement is possible, information is generally not available for enough countries (as is the case, for example, with the nutritional status of the population) (Santos and others, 2010).

[3] For a review of the regional experience in multidimensional poverty measurement in the region, see Santos (2013).

[4] In Latin America, poverty is measured on the basis of determining the amount of resources needed to meet basic needs (poverty line method), or by attempting to determine directly whether such needs are fulfilled (UBN method). From the perspective of capabilities, poverty measurement based solely on resources is inadequate, since it does not provide information on the things that people can do or actually do with these resources (or means). From a rights-based perspective, meanwhile, the poor are not persons who are deprived or needy but rather citizens and rights-holders. However, even if capabilities or functionings have intrinsic value, not all of them are rights that States are legally obliged to uphold.

For Latin America, the best starting point for multidimensional poverty measurement is the set of core indicators of critical deficiencies in living conditions, which are the classic method of measuring UBN. This is because they are relatively well-established measures of poverty (constituting part of the prevailing notions of poverty in academic and policymaking circles) and are widely available in surveys. This starting point provides dimensions and indicators that provide a fairly good picture of whether people have access to goods that can often not be bought from current income (such as public goods).[5] However, in the region today, where progress has been made in reducing the most extreme deprivations in living conditions, an index measuring classic UBN would not appear the most comprehensive way of identifying poverty.

Common practice in Latin America has been to calculate separate poverty indicators for income insufficiencies and UBN. Two, not necessarily consistent, reasons have been put forward to justify this: (i) poverty in terms of UBN and insufficient income are two distinct types of poverty that can be measured using complementary methods, but which nonetheless remain different, and (ii) there is a high correlation between the two indicators, which implies risks of redundancy and suggests that the best option would to be to employ only one of them. However, from a very early stage some authors advocated combining the two methods, with a view to identifying poor individuals and households as accurately as possible (Beccaria and Minujfn 1985: Kaztman and Gerstenfeld, 1988; Boltvinik, 1990 and 1992).

In recent years the view that classic UBN indicators should be combined with monetary measures in a multidimensional index has been gaining ground. This is because both measures are imperfect, which means that errors of inclusion and exclusion can arise when only one is used to identify the poor (Santos and others, 2010; ECLAC, 2013). Indeed, there is ample empirical evidence from different countries of discrepancies arising between the numbers of poor as identified by income and by non-monetary dimensions.[6] Since the ultimate purpose of a poverty index is to identify who is poor with as much accuracy as possible, and since insufficient income is one of the clearest expressions of poverty, it would appear unwise to ignore the information contained in this variable.

ECLAC (2013) has observed that the combined use of a set of classic UBN indicators with a monetary measurement of extreme deprivation (indigence) yields incidences of poverty that are low and decrease over time, especially in countries where the living conditions of the population have improved the most. Thus, with a view to providing a measurement of poverty that is more in line with the reality of the region, two complementary paths can be followed: (i) amending certain cut-offs used for the deprivations normally included in measures of poverty (more on this later), and (ii) incorporating information on insufficiencies in other spheres.

Regarding the latter, the index presented here includes deprivations that reflect the weakness of links with institutions. Although this field has been little considered in measurements of poverty in the region, there are good reasons to include it. ECLAC has stated that poverty entails both lacking the income to met basic needs, and suffering social exclusion, which prevents full participation in society (Barcena, 2010). This approach is a way of incorporating the social structure and the functioning of labour market institutions and social protection as an explicit element in poverty measurement (Kaztman, 2001).[7]

In short, the index set out here represents an attempt to quantify hardships, deprivations and infringements of rights that prevent or hinder people or households from meeting their basic needs and performing essential functions for their well-being. Nonetheless, this conceptualization of poverty remains incomplete.

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5 This is not always the case, however, especially in the most market-orientated societies.

6 See for example Ruggeri Laderchi (1997) who considers data from Chile, Peru and India; Stewart and others (2007) who consider data from India; Bradshaw and Finch (2003) for the United Kingdom; and Whelan, Layte and Maitre (2004) for nine European countries.

7 It is also a way to include elements of the definition of poverty put forward by Townsend (1979).

It is an ad hoc construct, built by combining the prevailing approaches to well-being and the possibilities offered by surveys conducted by the countries and tailored to the need for a measurement of poverty in line with the regional reality that can provide data suitable for informing policymakers in the public and social spheres.

II. Dimensions and thresholds

Measuring poverty on a multidimensional basis necessitates evaluating whether people succeed in achieving minimum thresholds of well-being in a narrow set of dimensions and indicators. In this case, the dimensions and indicators were selected with reference to the notion of poverty mentioned earlier. The aim was to provide the most comprehensive representation possible of the various areas that make up well-being, although data limitations sometimes prevented this (a proposal on aspects of the data sources in need of improvement is presented in box I.3).

Box I.3
Towards improved data sources

The index used here was developed to make best possible use of information available from household surveys conducted in the region. It should, however, be noted that the difficulties inherent in building it means it still leaves a great deal to be desired.

Although great strides have been made in surveys in the region over the past two decades, there are still many aspects in need of improvement. Many of the proposals made with a view to improving both surveys in general[a] and multidimensional measurements of poverty[b] would not necessarily incur greater costs and could bring significant benefits for poverty measurement and for public policymaking.

In respect of multidimensional poverty measurement, it is necessary to expand and improve the coverage of the dimensions and move towards greater international harmonization of questions. The dimension of health, which is conspicuous by its absence from this index, is a salient example. The only indicator which is widely available in surveys is access to health insurance, and that fails to take account of effective use of services or health outcomes. With some exceptions, the surveys contain no health-care performance indicators such as anthropometric data and measurements of infant mortality, incidence of chronic diseases, disabilities and/or the inability to perform daily activities independently.

Since health is such an important dimension of well-being, expanding and improving indicators in this area should be a priority objective. This would not entail including an exhaustive module on health; choosing a few key indicators would suffice. With this in mind, and in line with the post-2015 development agenda, the Multidimensional Poverty Peer Network (MPPN) and the Oxford Poverty and Human Development Initiative (OPHI) have proposed a set of short modules for data collection, including some that have been referred to above.[c]

The available indicators on other dimensions are also far from perfect. In the field of education for example, there is great scope for improvement in the measurement of aspects relating to the quality of education. The inclusion of a concise instrument to measure certain fundamental age-appropriate cognitive skills would be a source of valuable information (Grosh and Glewwe, 2000). The modules proposed by MPPN include dedicated questions to that end. This is not only applicable to the school population; it is valid for adults too, since there is no information on whether they have the cognitive skills to participate adequately in modern societies.

Data sources on employment are also in need of improvement, especially those on the quality and formality of work. There are conceptual frameworks that can act as guidelines for this purpose, such as the concept of decent work promoted by ILO and the technical recommendations of the Nineteenth International Conference of Labour Statisticians.[11]

Although income is one of the most widely used indicators in surveys, the way in which information on it is gathered varies greatly within the region, which acts as an obstacle to data comparability. Aspects such as income from second jobs, payment in kind, the distinction between gross and net income or how to measure public transfers, to name but a few, are issues that need to be properly addressed before the monetary resources of households can begin to be measured more adequately.

With regard to housing and basic services, the categories used need to be further harmonized and adapted, as far as possible, in line with the standards of the Millennium Development Goals, and an indicator of quality should be added where applicable.[6] Greater harmonization of categories is particularly important in respect of the water sources and sanitation available to the household, as well as the durable goods they possess. There is a particular need for the inclusion of a question on the continuity of services in terms of access to mains water, electricity and natural gas, so as to reflect any deprivations that would not be revealed by merely asking whether households are connected to these networks.

Importantly, the incorporation of the aforementioned indicators on health, employment and access to services would represent genuine progress in the measurement of the effective functionings of members of households and would be a way of overcoming the restrictions imposed by measurements that merely quantify the means at their disposal. The collection of information on multiple dimensions in the same survey would also enable analysis of the interplay of different dimensions, their combined distribution and causal interrelationships, which would facilitate the formulation and monitoring of policies.

But beyond improving questions, many challenges remain in respect of the drawing-up, carrying out and distribution of household surveys. It is to be hoped that the various efforts being made in the region, under the banner of the Statistical Conference of the Americas of ECLAC, or globally through initiatives such as the International Household Survey Network, will give rise to the greater availability of more useful and reliable sources of information that can adequately meet the growing demand for information.

Source: Economic Commission for Latin America and the Caribbean (ECLAC).
[a] See, for example, documentation on the workshops held between 1998 and 2004 under the programme for the improvement of surveys and the measurement of living conditions in Latin America and the Caribbean (MECOVI).
[b] See Alkire (2014), Alkire and others (2014) and Santos (2013).
[c] See [online] http://www.ophi.org.uk/wp-content/uploads/MPPN_SDG-Pov_QuexPost2015_Sept-14a.pdf70a8fd7.
[d] See [online] http://ilo.org/global/statistics-and-databases/meetings-and-events/international-conference-of-labour-statisticians/19/WCMS_234036/lang--en/index.htm.
e Not all of the countries' surveys ask whether toilets are shared with other households, for example.

The indicators that measure severe deprivations in the habitability of housing, such as overcrowding and precarious building materials, have commonly been included in measurements of UBN poverty in Latin America. Deprivation in housing habitability is understood to exist when it fails to provide its occupants with a minimum level of protection from the natural and social environment. This means that the dwelling fails to provide protection against various environmental factors (such as rain or humidity), as well as privacy and comfort for basic biological and social activities (Feres and Mancero, 2001).

A dwelling's ability to insulate individuals against the natural elements is usually assessed by looking at the construction materials used in the roof, walls and floor. This indicator considers people living in houses with dirt floors or with ceilings or walls made of unsound materials to be deprived.[8] [9]

A dwelling's adequacy to provide social insulation is established through the indicator of overcrowding, the commonly used standard being more than three persons per room. This bar would appear to be rather undemanding for some countries in the region; Chile and Mexico, for example, apply thresholds of around 2.5 persons per room.11 Nonetheless, given that other countries in the region continue to use the old standard, the value of three or more persons per room has been taken in this work as representing an intermediate benchmark.[10]

With regard to housing, the index includes an indicator to measure insecurity of tenure of homes. According to the United Nations (2013) all persons should possess a degree of security of tenure which guarantees legal protection against forced eviction and other threats, and enables them to live in peace and dignity. Unlike the United Nations (2013), which considers security of tenure to be safeguarded by common law, here it is deemed to be protected by civil (written) law only. People occupying dwellings illegally (squats) or living in loaned housing are thus deemed not to have secure tenure.

Deprivation in access to water and sanitation has also been a regular part of measurements of UBN poverty in Latin America, and its importance is internationally recognized. In 2010, the United Nations affirmed the human right to water and sanitation, since both are essential for preventing undernutrition, infectious diseases and maternal and child mortality.

The standard set by the World Health Organization (WHO) defines as appropriate access to improved water sources that each individual should have access to at least 20 litres of clean water per day from a source situated less than one kilometre from the home.[11] Unimproved water sources, meanwhile, are vendors, water trucks, unprotected wells or watersheds, and bottled water, whereas rainwater is classified as an improved source (UNICEF/WHO, 2012).

However, the information provided by the surveys of the Latin American countries does not allow for direct measurement of access to improved water sources, and presents gaps and discrepancies which hinder comparison between countries. What is more, not all countries in the region have adopted the international standard so notions of what constitutes improved water sources differ from country to country (Taccari and Stockins, 2013), thus giving rise to —often large— discrepancies in empirical estimates of access to water sources (and improved sanitation services) (see Cecchini and Azocar, 2007, for further details).

The WHO definition also provides criteria for determining whether a water source can be considered to be improved, namely the quality and quantity of water available and the effort necessary to obtain it. ECLAC (2013) attempted to implement the aforementioned international standard, based on survey data, with water from vendors, water trucks and unprotected wells considered to be unimproved, as was rainwater since its availability could not be guaranteed on a year-round basis.[12]

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[8] Information on the materials used in the construction of dwellings is usually obtained differently in national surveys from country to country, partly because of the features peculiar to those contexts (Feres and Mancero, 2001).

[9] For Chile, see Ministry of Social Development [online] http://www.ministeriodesarrollosocial.gob.cl/casen/definiciones/vivienda.html; for Mexico, see State System of Information and Indicators on Land and Housing [online] https://www.coveg.gob.mx/seiisv/modulos/secciones/indicadores/indicadores/Indicador%2014.pdf.

[10] This is the cut-off used in the indicator on overcrowding for gauging progress in the Millennium Development Goals (see [online] http://mdgs.un.org/unsd/mdg/Host.aspx/ContentGndicators/OfficialList.htm).

[11] See the WHO website [online] http://www.who.int/water_sanitation_health/mdg1/en/.

[12] A situation liable to get worse as the effects of climate change manifest themselves.

In designing this index it was decided to continue efforts to improve the measurement of access to water sources. Thus, in urban areas, households are not considered to be deprived if they have access either to mains water from a tap on the premises, whether inside or outside the dwelling itself, or to a well with a pump.[13] Other situations are deemed to constitute deprivation. In rural areas, households with a protected well, well with a pump (if surveys allow this distinction to be ascertained) or access to a communal tap are not considered to constitute water-related deprivation.

An improved sanitation installation, meanwhile, is one which allows for the hygienic separation of faeces from human contact (Taccari and Stockins, 2013). As in the case of water sources, a usual practice in the evaluation of improved sanitation is consideration of the features of the surroundings. For example, in some rural settings, households, irrespective of their poverty status, would not have access to a sewerage system or to mains water.

As with water sources, some changes were made to the definitions of improved sanitation in ECLAC (2013), most notably to the effect that in both urban and rural areas households sharing toilets are considered to be deprived. Households in urban areas are deemed not to suffer deprivation if they have sanitation systems for removal of waste into a sewerage system or a well with a septic tank. Households in rural areas are deemed not deprived if they have some form of sanitation (including latrines) with removal and disposal of waste neither aboveground nor in rivers or seas.

One aspect overlooked by commonly used UBN indicators is energy poverty. Households are said to be energy poor when they do not consume enough energy to meet their daily requirements and use fuel that is hazardous to the health of their members (Nussbaumer and others, 2011). The resources of households have been linked to the level of toxicity and the efficiency of the fuel that they use, with the worst fuels being waste matter, wood and charcoal, in that order14 (Duflo and others, 2008). In this index, as in ECLAC (2013), households without electricity and those using toxic fuels for cooking are considered to be deprived in respect of energy.

The overall multidimensional poverty index of Alkire and Santos (2010) includes a measurement of the amount of durable goods that households possess as an indicator of standard of living. Although information on durable goods is usually available in national surveys in the region, it has not been particularly widely used in multidimensional measurements of poverty. It was therefore decided to include a durable goods deprivation indicator in the index, as a more lasting proxy for the standard of living of households. The goods considered are vehicles, washing machines and refrigerators.

Again in respect of the dimension of living standards, the exercise carried out by ECLAC (2013) included a monetary indicator of deprivation, which deemed households below the indigence line to be deprived. The indigence indicator was preferred as a cut-off partly because the indicator of total monetary poverty could increase the possibility of double counting, given that part of the income poverty measurement that does not correspond to indigence is a proxy for the ability of households to satisfy non-food needs, including some which are already covered by the set of UBN indicators. Moreover, although the fungible nature of income means that revenue cannot be equated with food consumption, the indigence line represents a minimum amount of resources necessary for people to satisfy their basic requirements for daily sustenance, an aspect not captured by the other indicators considered by ECLAC (2013).

[13] Surveys in most countries provide no information on whether or not the well is protected. Some, however, state whether the wells have pumps, which enables application of the criterion of the necessary effort to obtain water (per the international standard).

[14] No differentiated cut-offs have been set for urban and rural areas in relation to the use of cooking fuel, since the very harmful effects of the use of toxic fuels are believed to take precedence over cultural differences or differences in resources.

On this occasion the criteria used previously have been modified, however, and the overall poverty line has been employed as a cut-off to determine monetary deprivation. The reason for this is twofold: first, the indicator of extreme poverty covers a very small percentage of the population in Latin America, and is thus unable to capture income insecurity. Second, although there is greater co-occurrence between some critical gaps and income insufficiencies when the poverty line is used rather than the indigence line, not all of this co-occurrence is redundancy (when the same deprivation is determined more than once), since another part of the covariance corresponds to the systematic association of different deprivations, which is essential for the identification of multidimensional poverty (see further details on redundancy in box I.6).

Education, moreover, is essential in order to build the skills that people need in order to participate adequately in productive and social life. Lack of education is therefore a very real obstacle to escaping from poverty and can contribute to its reproduction. The indicator of school attendance has been traditionally used in multidimensional poverty measurements in the region. It is usually calculated for the population aged from 6 to 14 years but, given the legislative reforms undertaken in some countries in the region to make full secondary education mandatory, here households with at least one child or adolescent (aged from 6 to 17 years) not attending an educational institution are considered to be deprived.

At any rate, the increase of school coverage has led to a substantial increase in enrolment in primary and secondary education in the region. This index therefore includes a schooling gap indicator, following the example of the national poverty measurements in Mexico (National Council for the Evaluation of Social Development Policy (CONEVAL), 2010) and Colombia (Angulo, Diaz and Pardo Pinzon, 2013). Although imperfect, the schooling gap indicator provides a proxy for the quality of education children receive (and reflects the education system's inability to help children progress through the levels of schooling at an adequate pace), which can be used to supplement the indicator of school attendance. A household is understood to be deprived when at least one child between 6 and 17 years is lagging behind their school year group. A cut-off of two years or more was used, since a cut-off of one year could give rise to confusion as a result of the particularities of school years, effective school starting ages and the date on which the countries take measurements.[15]

Given that the school attendance and schooling gap indicators are insufficient to determine the educational status of the adults in the household, an indicator on completion of education is also included for the members of the household aged 20 years or over. Usually the deprivation cut-off is completion of primary education, but people in Latin America now require a level of education far beyond primary school to have a good chance of escaping income poverty (Villatoro, 2007). The cut-off used here for persons aged between 20 and 59 years is completion of lower-secondary education, while that for those of 60 years or over remains completion of primary school.

In turn, attending school, progressing through the school system or completing a given level of schooling does not ensure the acquisition of knowledge and cognitive tools needed to overcome poverty and participate adequately in the knowledge society and networks (which requires skills such as the ability to analyse written texts, process information, build relationships and come up with new ideas). However, household surveys in the region do not currently include indicators of cognitive skills for either children of school age or adults.

So far, only indicators frequently used in multidimensional measurements of poverty have been selected. Naturally, any comprehensive measurement of poverty requires data on other aspects. It would be particularly relevant to include indicators of people's health and nutritional status (Santos, 2013), but this information is not available for a sufficient number of countries in the region. Indeed, the health dimension is notably absent from household surveys in Latin America. Very little information is generally collected on this dimension, and the indicators used vary greatly from country to country in those that do compile more comprehensive information. It is therefore essential to increase the amount of information collected on this dimension in household surveys in the near future (see box I.3).

One of the innovations of this index is the inclusion of deprivations stemming from precarious links with institutions, a hardship affecting people in their relations with other members of society. Thus, alongside the more extreme deprivations, which have typically been part of the absolute measures of poverty, the index also includes deprivations that reflect relative disadvantage. In the Latin American region, these include living in socially segregated urban areas,[16] access to only poor quality services (education, health, transport, housing, among others), and lack of connection to social networks and institutional frameworks that would facilitate dealing with shocks and accessing opportunities of upward mobility (Kaztman, 2001).

[15] For example, it could be assumed that in a given country the school year begins in March and that the official age for entering the first year of primary education is 6 years. If a child turning six in June is not admitted in the first year for being younger than the official age, he or she will begin school at age seven; with a cut-off of one year he or she would be considered to be lagging behind.

[16] This dimension was not included in the measurements made here owing to data limitations.

One of the most important mechanisms for ensuring social inclusion is employment. The International Labour Organization (ILO) has stated that work is a source of personal dignity, family stability and peace in the community. The concept of decent work expresses the principle that people should have safe, worthwhile jobs that they may carry out in conditions of freedom and equity.[17] Decent work is characterized by the safeguarding of labour rights and the presence of social protection and social dialogue.

There is, however, no internationally accepted method for measuring decent work, and a cut-off to determine it may be set too high for the purposes of measuring poverty in Latin America. As a first step, an unemployment indicator has been included in the multidimensional poverty index, both because of the importance of the issue and the fact that it is one of the most commonly covered aspects in surveys of the countries of the region.

Although unemployment is considered to be one of the causes of monetary poverty, comparative evidence at international level suggests that there is no linear correlation between these two phenomena (Atkinson and others, 2002). Unemployment is included in this index because of the risk it implies of social exclusion and detachment from the lifestyle and the prevailing culture of society (Atkinson and others, 2002). People deemed to be deprived in this regard are those living in households where at least one person of working age is in any of the following situations: (i) unemployed; (ii) employed without pay; or (iii) discouraged (able to work but having ceased to look for employment).[18]

Access to adequate social protection is a fundamental right enshrined in international labour standards and recognized by the United Nations and, as such, a principle of the ILO decent work agenda.[19] There are in fact very serious shortcomings in terms of social protection in Latin America: the segmented nature of the structure of production means that the poorest individuals work in informal jobs with either precarious social protection arrangements or no social protection whatsoever (Katzman, 2010).

The question of whether people have access to adequate social protection cannot be directly determined from household surveys. Recent practice in the multidimensional measurement of poverty in the region has been to consider lack of access to social protection —in terms of health insurance coverage, affiliation to social protection schemes and receipt of pensions— as deprivation (see CONEVAL, 2010; Angulo Pardo Diaz and Finch, 2013; ECLAC, 2013).

This index uses the approach taken by ECLAC (2013) to social protection, with some modifications. Households in which no member has any form of contributory insurance (based on mandatory or voluntary contributions from individuals) are considered to be deprived in respect of social protection. This cut-off is used for both social security and health, and has the advantage of using a constant delimiting criterion across the different indicators of social protection.

As for social security, people living in households where no member is either affiliated to a social security system (or contributes to one) or receives any contribution-based pension or retirement benefits are considered to be deprived. Receipt of a non-contribution-based pension (such as a solidarity-based or basic pension) is thus insufficient to prevent an individual being considered deprived in respect of social security.

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[17] See the ILO website for further details [online] http://www.ilo.org/global/about-the-ilo/decent-work-agenda/lang--en/index.htm.

[18] The indicator used here follows the guidelines proposed by Atkinson and others (2002) (the "jobless households" indicator), as a social indicator for the European Union (pp. 144-147). The possibility of counting as deprivations certain situations where people do not participate in the labour market for other reasons (as a result of employment discrimination, responsibilities associated with the care economy or cultural bias, for instance) was considered but, since this would have led to very high incidences of employment derivation, it was decided to leave them out.

[19] See ILO [online] http://ilo.org/global/about-the-ilo/decent-work-agenda/social-protection/lang--en/index.htm.

With regard to health insurance, households in which no member is covered by a contribution-based health insurance scheme are considered to be deprived. This definition was adopted on the basis that, to a greater or lesser degree, fees in the health systems of all of the countries covered by this indicator are adjusted for purchasing power.

The cut-off employed for health insurance differs from that of ECLAC (2013), which deemed households not to be deprived in this respect if they had health insurance of any kind. This criterion presented problems of comparability, since it judged differently two households in different countries but in similar situations in respect of access to health care.[20]

The definition of deprivation in respect of health insurance used here can be taken as a proxy for the quality of the health-care services people receive, provided that individuals or households able to pay more rationally prefer health protection schemes that provide the best quality of care. However, owing to the opacity of health insurance markets, this is not necessarily the case.

In respect of social linkages, one dimension that was considered but ultimately rejected was deprivations in access to information and communications technology (ICT). While there is extensive literature on the existence of a digital divide that reproduces socioeconomic gaps, the emergence of mobile telephony in the region compromises the effectiveness of this dimension. At present, access to Internet-enabled mobile telephones tends to cut across different socioeconomic groups, so assessing deprivations in access to information and networks via technological devices does not seem appropriate.

What is more, including deprivations in terms of links with other people or institutions would most likely mean exceeding the scope of the conventional notion of poverty, which could lead to a greater likelihood of inclusion error. However, this risk is reduced by using a method of aggregation under which the presence of just one deprivation is insufficient to identify a household as poor. Some of these indicators serve, albeit imperfectly, as a proxy for the dimensions of health and employment, which are important aspects of well-being.

III. Building the index

The index was developed on the basis of the methodology described in Alkire and Foster (2007 and 2011) (see box I.4 for further details). This entailed: (i) choosing the dimensions and indicators and weighting them; (ii) setting the multidimensional cut-off (k) or the proportion of deprivations that a subject must suffer in order to be considered poor; and (iii) calculating the deprivation score for each person and determining, by comparing the score and the value of k, whether he or she is multidimensionally poor.

Table I.3 shows the dimensions, indicators and weighting structure of the index. All the deprivations are weighted the same (7.4%), except for social protection (3.7%) and income (14.8%). Deprivations in social protection were weighted less for two reasons: (i) because they are hardships that account for a lack of well-being that goes a step beyond the traditional concept of poverty, and (ii) because otherwise the

[20] For example, in Chile almost the entire population has some form of health insurance; in Argentina, meanwhile, a portion of the population has no insurance but the public health system is required to treat them free of charge. In respect of the hierarchical stratification of users of the systems, the proportion of Chileans holding a free card (i.e. those living in indigence) are in a position similar in relative terms to those without insurance in Argentina. The difference is that in Chile means testing is carried out to ascertain and categorize the most vulnerable in society, while in the Argentine system relies on a self-selection that does not explicitly classify the most vulnerable. In terms of figures, under the definition of deprivation of ECLAC (2013), there is practically no deprivation in Chile (what is more, the proportion of uninsured people is spread more or less evenly across the different socioeconomic groups). When a cut-off based on contribution-based insurance is used, the levels of deprivation are similar in the two countries.

effective weight of this dimension, which is created by combining the weighting and the selected cut-off, would have been very high, thus leading to something of an imbalance between dimensions in the index.[21] Income, in turn, is weighted more because it is itself a synthetic indicator that reflects insufficiencies in various dimensions of well-being. The other indicators used do not have this characteristic.

The union approach was not used to calculate the multidimensional cut-off k, as it requires only one deprivation for a household to be identified as poor, thus greatly increasing the likelihood of errors of inclusion because all of the indicators have measurement errors.[22] The intersection method, which requires that a household be deprived in all dimensions, was not used either since it markedly increases the probability of errors of exclusion.

For the purposes of this index an intermediate criterion was preferred, k=25%. With this value, persons identified as poor must be deprived in the equivalent of an entire dimension plus one other indicator, or must be deprived in income and have at least two additional deprivations. Setting this k value also ensured that no individual deprived in just one dimension could be identified as multidimensionally poor,[23] thus reducing the chances of inclusion error.

Because there is an element of discretion in selecting weightings and cut-offs, it is very important to establish whether the estimates provided by the index are sufficiently robust. In particular, checks need to be made to ascertain whether the ranking of countries tends to be similar when different values are used for the multidimensional cut-off and changes are made to the weightings of the dimensions or indicators. As box I.5 shows, the index remains robust for changes to weightings, indicators, deprivation cut-offs and k values.

[21] The effective weighting of each indicator is determined by two factors: the relative weighting accorded in the aggregation of the index and the cut-off selected. Thus, indicators with high cut-offs, which yield high rates of deprivation, have a greater influence in ascertaining poverty, although the relative weight assigned is equal to that of other indicators. This is the case with the social protection indicator.

[22] This risk is greater when insufficiencies going beyond those traditionally associated with poverty are included.

[23] The maximum score that can be obtained by a person deprived in respect of all indicators in a single dimension is 22.2%.

Table I.3
Multidimensional poverty index: dimensions, deprivation indicators and weightings

Dimensions	Deprivation indicators: persons living in...	Weighting (percentages)
Dwelling		22.2%
Makeshift building materials[a]	Dwellings with a dirt floor or walls or roof of makeshift materials (waste material, cardboard, cans, thatch, palm fronds, straw or other materials).	7.4%
Overcrowding[b]	Households with three or more people per room, rural and urban areas.	7.4%
Insecure housing tenure[c]	Households: (i) living as squatters; or (ii) living in ceded or borrowed housing.	7.4%
Basic services		22.2%
Lack of access to improved water sources[d]	Urban areas: Households obtaining water from: -Mains network off the premises -Unprotected wells or lacking a motor pump -Mobile sources (village tank, tank cart, tanker truck, etc.) -Bottled water -River, stream, rainwater, other Rural areas: households obtaining water from: -Unprotected wells or with a hand pump -Mobile sources (village tank, tank cart, tanker truck, etc.) -Bottled water -River, stream, rainwater, other	7.4%
Lack of improved sanitation[b]	Urban areas: -Waste not connected to a sewer system or septic tank -Shared toilet -No sanitation Rural areas: -No sanitation -Shared toilet -Waste going untreated to ground surface, river or sea.	7.4%
Lack of source of energy[e]	Households without electricity or using firewood, coal or waste for cooking.	7.4%
Living standard		22.2%
Insufficient resources	Households with insufficient per capita income to meet food and non-food needs.	14.8%
Lack of durable goods[f]	Households that have none of the following goods: (i) vehicle; (ii) refrigerator; (iii) washing	7.4%
Education		22.2%
Non-attendance at school	Household has at least one child of school age (6 to 17 years old) who does not attend	7.4%
Schooling gap	Household has at least one child or adolescent aged 6 to 17 who is more than two years behind schooling grade for age.	7.4%
Low educational attainment	Household has nobody aged 20 or above with a minimum level of schooling. -Persons aged 20 to 59: have not completed lower secondary education. -Persons aged 60 and above: have not completed primary education.	7.4%
Employment and social		11.1%
Unemployment	Household has at least one person aged 15 to 65 in one of the following situations: -Unemployed -Employed without pay -Discouraged worker	7.4%
Lack of social protection[g]	Household meets all the following conditions: -Nobody has any kind of contributory or co-payment health insurance -Nobody is affiliated with a contributory social security system -Nobody has income from a pension or contribution-based retirement scheme	3.7%

Source: Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of Santos and others (2014).
[a] No information was available on walls for Argentina (2005 and 2012), on floors for Brazil (2005 and 2012), on roofs for Colombia (2008 and 2012) and Ecuador (2005), or on dwelling materials for Uruguay (2005).
[b] The correction proposed by Katzman was used for non-exclusion of kitchen and/or toilet regarded as rooms for Brazil, Costa Rica, Honduras and Mexico (see Katzman, 2011).
[c] Living in housing given in usufruct is not considered housing deprivation.
[d] For the Dominican Republic (2006 and 2012), urban criterion applies to rural areas because the question does not allow for other criteria.
[e] No information was available on electricity for Argentina (2005 and 2012), Dominican Republic (2006) and Uruguay (2005); no information on fuel for Bolivarian Republic of Venezuela (2005 and 2012), Chile (2003 and 2011), and Honduras (2006).
[f] No information was available on goods for Argentina (2005 and 2012) and Plurinational State of Bolivia (2003); no information on vehicle for Brazil (2005), replaced with cooking stove; no information on vehicle for Chile (2003), replaced by water heater; no information on washing machine for Costa Rica (2012) no information on washing machine, replaced by plasma or liquid crystal display (LCD) television set; no information on washing machine for Honduras (2010 and 2006), replaced with cook stove.
[g] No information on health insurance for Brazil (2005 and 2012) and the Bolivarian Republic of Venezuela (2005 and 2012); the indicator for social protection is not included for Nicaragua (2009) because of lack of information on pension and health insurance affiliation.

Lastly, all the deprivations included in the index are operationalized at the household level. This is not only because of issues related to data characteristics, but also because many of the deprivations experienced in principle individually have important externalities for all members of the household. For example, income is obtained individually but is used to meet the needs of all members of the household. The same is true for health insurance and social security, which are usually contracted individually, but their benefits are extended to most or all household members (especially dependents). Even individual educational attainment and underperformance have positive or negative effects, respectively, on other household members (Basu and Foster, 1998). Furthermore, a considerable proportion of public policies target households.

Box I.4
The Alkire-Foster method

The Alkire-Foster method links the counting tradition, which identifies the poor by the number of deprivations that affect them, with the axiomatic tradition, which sets out a group of desirable properties that poverty measures must satisfy at the identification and aggregation stages.

The Alkire-Foster approach proposes: (i) an identification method pc, which links and extends traditional intersection and union approaches, and (ii) a class of poverty measures Ma, which are extensions of the traditional measures proposed by Foster, Greer and Thorbecke (the FGT index), but adjusted for multidimensionality and satisfying a variety of axioms.

For the process of identification, the authors suggest a cut-off level k for ci (the number of weighted deprivations suffered by an individual) lying somewhere between k=1 and $k=d$. Thus, pi (the identification method) identifies person i as poor when the number of weighted deprivations is at least k. Since pi is dependent on both the within- dimension cut-off line zj and the across-dimension cut-off line k, pi is a dual cut-off method of identification.

The basic input for the Alkire-Foster methodology is a deprivations matrix g0 = $[gij0]$, where each individual is assigned the value of zero when there is no deprivation, and the value of one when there is $(yij < zj)$.Then the people's deprivation scores (ci) are calculated using the (weighted) sum of their score in the different dimensions, thus identifying who is poor $(ci >$k). The matrix is then censored (g0k), which means that the deprivations of the non-poor are excluded (they are assigned a value of zero).

The Alkire and Foster measurement used to construct the multidimensional poverty index presented in this chapter is the adjusted headcount ratio (MO).This is made up of two basic indicators: the poverty headcount ratio (H) and the poverty intensity rate (A), as defined below:

- The headcount ratio (H) is the proportion of individuals identified as poor. $H=q/n$, where q is the number of poor people and n is the total population.
- The poverty intensity rate (A): is the (weighted) average of the deprivations suffered by people identified as poor: $A=Z\ ci$ (k)/dq.

To estimate A, it is necessary to calculate the proportion of deprivations experienced by individuals, taking $ci(k)/d$ the censored vector of deprivation counts as a benchmark (discounting deprivations among the non-poor). This value is then divided by the total number of poor individuals (q).

The adjusted headcount ratio (MO) is the result of multiplying H by A.

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of S. Alkire and J. Foster, "Counting and multidimensional poverty measurement, *Journal of Public Economics*, vol. 95, No. 7-8, 2011; and "Counting and multidimensional poverty measurement, *OPHI Working Paper*, No. 7, 2007.

IV. Findings

The methodology described was used to estimate the percentage of poor in 17 countries in Latin America, around 2005 and 2012. In 2012, approximately 28% of the region's population was living in multidimensional poverty. The highest levels were in Nicaragua (74.1%), Honduras (70.5%), Guatemala (70.3%), and the Plurinational State of Bolivia (58%). The lowest levels were in Chile (6.8%), Argentina (8.1%), Uruguay (9%), Brazil (14.5%) and Costa Rica (14.9%) (see figure I.8).

Multidimensional poverty incidence declined in all the countries between 2005 and 2012. The sharpest decreases were in Argentina, Uruguay, Brazil, Peru, Chile and the Bolivarian Republic of Venezuela, equivalent to a decrease in the headcount ratio of 7% or more per year, while El Salvador, Mexico, Honduras and Nicaragua posted decreases of 1% or less per year.

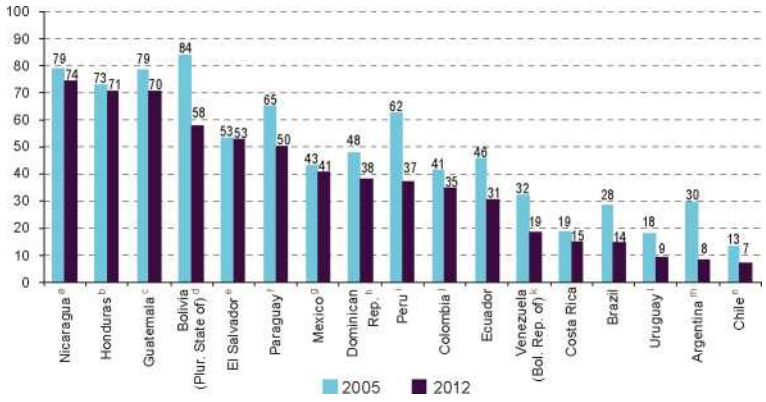
Poverty reduction was steeper in countries with lower baseline incidence (around 2005). However, the Plurinational State of Bolivia, Ecuador, Paraguay and the Dominican Republic, where the baseline incidence was in excess of 45%, posted very significant reductions in poverty (of between 3% and 6% per year).

A complementary method of quantifying poverty is determining its intensity. This indicator is obtained by dividing the weighted deprivation values of poor individuals in all dimensions (indicators) by the total number of poor (see box I.4).

Figure I.9 shows that the intensity of poverty declined in all of the countries under review between the two years considered, especially in Peru, the Plurinational State of Bolivia Argentina and Uruguay, which saw decreases of between around 1.7% and 2.8% per year.

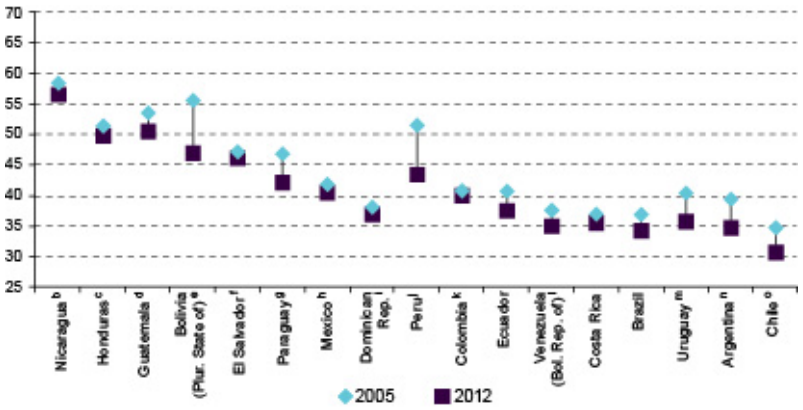
In both around 2005 and 2012, poverty was most intense in countries with the highest incidence of poverty. In these countries, then, are not only are there more poor individuals, but the poor are deprived in more dimensions.

Figure I.8
Latin America (17 countries): incidence of multidimensional poverty around 2005 and 2012
(Percentages of the population)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Data for Nicaragua refer to 2005 and 2009.
[b] Data for Honduras refer to 2006 and 2010.
[c] Data for Guatemala refer to 2000 and 2006.
[d] Data for the Plurinational State of Bolivia refer to 2003 and 2011.
[e] Data for El Salvador refer to 2004 and 2012.
[f] ata for Paraguay refer to 2005 and 2011.
[g] Data for Mexico refer to 2004 and 2012.
[h] Data for the Dominican Republic refer to 2006 and 2012.
[i] ata for Peru refer to 2003 and 2012.
[j] Data for Colombia refer to 2008 and 2012
[k] Data for the Bolivarian Republic of Venezuela for 2005 and 2012 refer to urban areas.
[l] Data for Uruguay for 2005 refer to urban areas.
[m] Data for Argentina for 2005 and 2012 refer to urban areas.
[n] Data for Chile refer to 2003 and 2011.

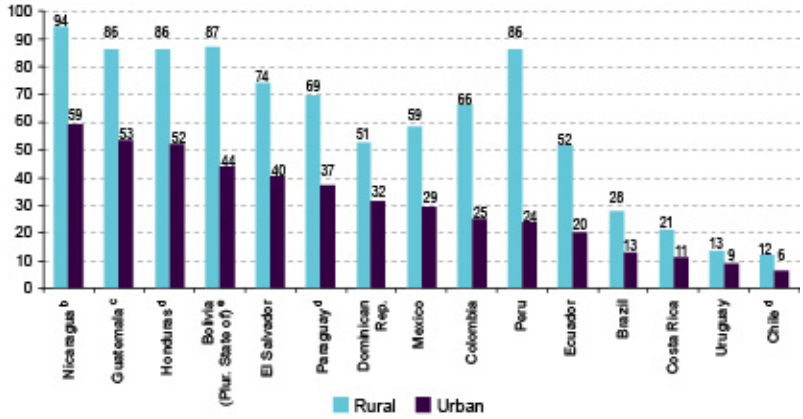
Figure I.9
Latin America (17 countries): intensity of multidimensional poverty, around 2005 and 2012 [a]
(Percentages of deprivation suffered by poor households)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries shown in order of poverty incidence around 2012.
[b] Data for Nicaragua refer to 2005 and 2009.
[c] Data for Honduras refer to 2006 and 2010.
[d] Data for Guatemala refer to 2000 and 2006.
[e] Data for the Plurinational State of Bolivia refer to 2003 and 2011.
[f] Data for El Salvador refer to 2004 and 2012.
[g] Data for Paraguay refer to 2005 and 2011.
[h] Data for Mexico refer to 2004 and 2012.
[i] Data for the Dominican Republic refer to 2006 and 2012.
[j] Data for Peru refer to 2003 and 2012.
[k] Data for Colombia refer to 2008 and 2012.
[l] Data for the Bolivarian Republic of Venezuela for 2005 and 2012 refer to urban areas.
[m] Data for Uruguay for 2005 refer to urban areas.
[n] Data for Argentina for 2005 and 2012 refer to urban areas.
[o] Data for Chile refer to 2003 and 2011.

Figure I.10 presents the incidence of multidimensional poverty by area of residence around 2012. In all the countries, a higher percentage of the population was poor in rural than in urban areas. The highest rural poverty levels were in Nicaragua, Guatemala, Honduras and the Plurinational State of Bolivia. The pattern was very similar for urban poverty, which also had the highest incidence in these four countries.

Figure I.10
Latin America (15 countries): rate of multidimensional poverty by area of residence, around 2012 [a]
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries shown in order of poverty incidence around 2012.
[b] Data for Nicaragua refer to 2009.
[c] Data for Guatemala refer to 2006.
[d] Data for Honduras refer to 2010.
[e] Data for Chile, Paraguay and the Plurinational State of Bolivia refer to 2011.

Regarding changes in poverty incidence by area of residence between 2005 and 2012, in all countries poverty fell more in rural areas than in urban areas. The greatest differences between the declines in rural and urban poverty were in Peru, the Plurinational State of Bolivia, Ecuador, Brazil and Paraguay.

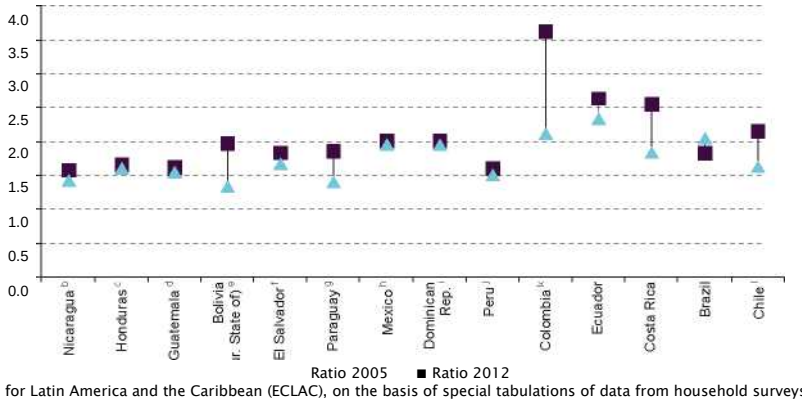
It is therefore not surprising that the largest increases in imbalances between rural and urban headcount rates occurred in some of these countries. In Peru, for example, rural poverty was 3.6 times urban poverty in 2012, compared to twice in 2003; in the Plurinational State of Bolivia, the ratio rose from 1.8 times in 2003 to 2.6 times in 2011; and in Ecuador, this ratio was twice in 2012, compared to 1.3 times in 2005 (see figure I.11).

Around 2012, rural poverty was more intense than urban poverty in practically all countries, with the sole exception of Uruguay. The most intense rural poverty around 2012 was seen in Nicaragua, the Plurinational State of Bolivia, Honduras and Guatemala. In urban areas, meanwhile, poverty was most intense in Nicaragua, Guatemala, El Salvador and Honduras (see figure I.12).

The largest reductions in rural poverty intensity between 2005 and 2012 took place in Peru, the Plurinational State of Bolivia, Ecuador, Paraguay and Chile. Trends in rural poverty in the first four countries merit special attention. In these countries, poverty rates fell much less in rural areas than in urban areas, but the intensity of rural poverty declined considerably. In other words, although a large proportion of the rural population in these countries remained in poverty in 2012, they were deprived in fewer dimensions than around 2005. Rural poverty intensity increased slightly in El Salvador, meanwhile, and remained constant in Costa Rica.

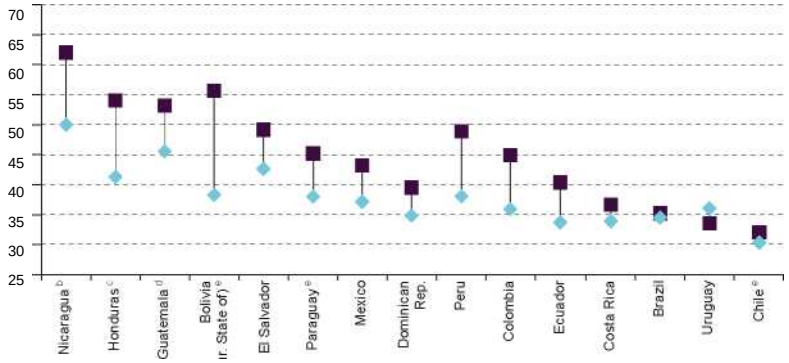
In respect of urban poverty intensity, the greatest reductions between 2005 and 2012 were seen in the Plurinational State of Bolivia, Peru, Chile and Paraguay, while levels in Nicaragua and Honduras remained practically unchanged.

Figure I.11
Latin America (14 countries): ratio of rural and urban multidimensional poverty rates, around 2005 and 2012 [a]
(Number of times)



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries shown in order of the incidence of poverty at national level around 2012.
[b] Data for Nicaragua refer to 2005 and 2009.
[c] Data for Honduras refer to 2006 and 2010.
[d] Data for Guatemala refer to 2000 and 2006.
[e] Data for the Plurinational State of Bolivia refer to 2003 and 2011.
[f] Data for El Salvador refer to 2004 and 2012.
[g] Data for Paraguay refer to 2005 and 2011.
[h] Data for Mexico refer to 2004 and 2012.
[i] Data for the Dominican Republic refer to 2006 and 2012.
[j] Data for Peru refer to 2003 and 2012.
[k] Data for Colombia refer to 2008 and 2012.
[l] Data for Chile refer to 2003 and 2011.

Figure I.12
Latin America (15 countries): intensity of multidimensional poverty by area of residence, around 2012 [a]
(Percentages of deprivation suffered by poor households)

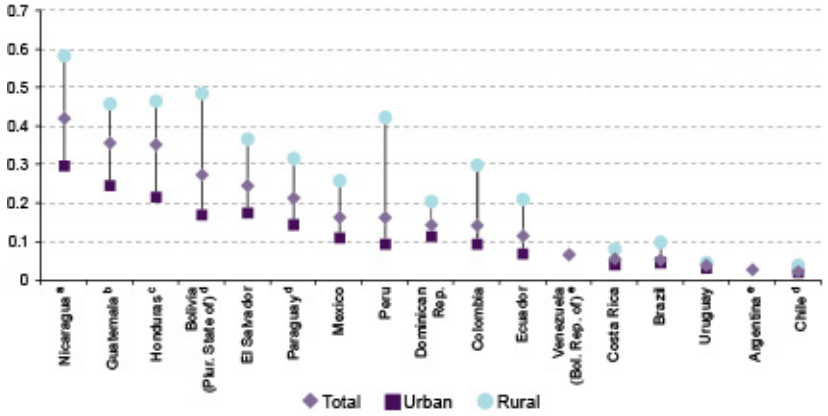


Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries shown in order of poverty incidence at national level around 2012.
[b] Data for Nicaragua refer to 2009.
[c] Data for Honduras refer to 2010.
[d] Data for Guatemala refer to 2006.
[e] Data for Chile, Paraguay and the Plurinational State of Bolivia refer to 2011.

As noted above, a headcount ratio such as the indicator of poverty intensity can provide useful information for quantifying poverty from a multidimensional perspective. A way of synthesizing the information obtained in both indices is to calculate a measurement of overall poverty (M0), or adjusted headcount ratio by multiplying the unadjusted headcount ratio (or incidence of poverty) by the intensity of poverty (see box I.4).

Figure I.13 shows that the countries with the highest adjusted poverty headcount ratios (M0) around 2012 were Nicaragua, Guatemala and Honduras, while Chile, Argentina and Uruguay had the lowest. These ratios were generally higher in rural than in urban areas, with the widest disparities between areas of residence in the poorest countries.

Figure I.13
Latin America (17 countries): adjusted poverty headcount ratio (M0), total and by area of residence, around 2012



Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries. [a] Data for Nicaragua refer to 2009. [b] Data for Guatemala refer to 2006. [c] Data for Honduras refer to 2010.

[d] Data for Chile, Paraguay and the Plurinational State of Bolivia refer to 2011. [e] Data for Argentina and the Bolivarian Republic of Venezuela refer to urban areas.

The adjusted poverty headcount ratio (M0) can be broken down to show the contribution made by each deprivation (and dimension) to overall poverty. Considering the simple average for the region, in 2012 income deprivations contributed the most to overall multidimensional poverty (28%). Next were deprivations in the educational attainment of adults in the household (12%), employment, social protection and sanitation (7% each), then deprivations in relation to overcrowding, energy and ownership of durable goods (6% each).

Figure I.14 shows the relative contributions of the various derivations to overall poverty in each country around 2012. The contribution of income to overall poverty tends to be larger in countries with the lowest adjusted incidence of poverty (M0). The largest contributions by monetary poverty were seen in Chile (41%), Brazil (37%) and the Bolivarian Republic of Venezuela (35%). The contribution of income to total poverty was below 25% in the five countries with the highest adjusted poverty rates (Nicaragua, Guatemala, Honduras, Plurinational State of Bolivia and El Salvador).

Precarious housing, insufficient energy and lack of durable goods contributed most to overall poverty in countries with higher levels of poverty (adjusted headcount ratios). By contrast, the contribution of unsecure housing tenure tended to be higher in countries with lower levels of poverty. For the rest of the deprivations, no substantial differences linked to the level of multidimensional poverty were found.

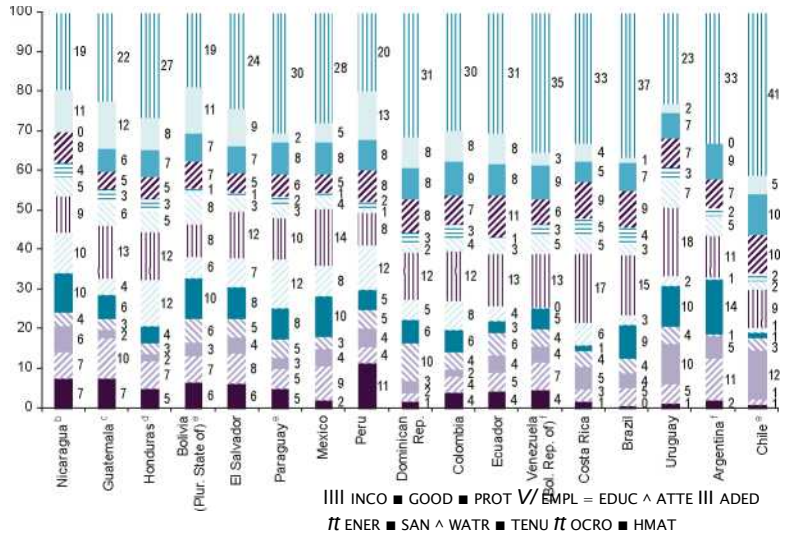
Table I.4 presents variations in the contribution of the various deprivations to overall poverty between around 2005 and 2012. As can be seen, the contributions of the different deprivations to the adjusted headcount ratio remained fairly stable in both periods under review. The most marked change was the drop of 20 percentage points in the contribution of income-based deprivation to total poverty in Argentina between 2005 and 2012. Another notable change was the fall in the contribution of the same deprivation (income) to total poverty in the Plurinational State of Bolivia (down by 15.8 percentage points between 2003 and 2011).

Tables I.5 and I.6 show the contributions of the various deprivations to total poverty around 2012, broken down by area of residence. In urban areas, considering the simple average of all countries, the largest contribution to the adjusted poverty index was made by income deprivation (31.8%), followed by the educational attainment of adults (11.6%), sanitation (8.2%), employment (7.4%), social protection (7.2%) and ownership of durable goods (6.3%). In rural areas, income deprivation was once more the largest contributor to total poverty (22.7%), ahead of educational attainment (13.2%), energy (10.1%) and ownership of durable goods (7.8%).

The most marked differences in contributions by area of residence are in deprivations relating to energy, housing materials and water, which contributed more to rural than urban poverty. Deprivations in sanitation and income, meanwhile, contribute more to poverty in urban areas than in rural areas.

Figure I.14

Latin America (17 countries): contribution of the various deprivations to overall poverty, around 2012 [a]
(Percentages)



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

[a] Countries shown in order of adjusted headcount ratio (M0). Deprivations are abbreviated as follows: INCO=monetary income; GOOD=durable goods in the household; PROT=social protection; EMPL=employment; EDUC=low education achievement; ATTE=school attendance; ADED=educational attainment of adults; ENER=energy; SANI=sanitation; WATR=water; TENE=secure housing tenure; OCRO=overcrowding; HMAT=housing materials.

[b] Data for Nicaragua refer to 2009.

[c] Data for Guatemala refer to 2006.

[d] Data for Honduras refer to 2010.

[e] Data for Chile, Paraguay and the Plurinational State of Bolivia refer to 2011.

[f] Data for Argentina and the Bolivarian Republic of Venezuela refer to urban areas.

Table I.4

Latin America (17 countries): variations in the contribution of the various deprivations to overall poverty, around 2005 and 2012 [a]
(Percentage points)

Country	Years	HMAT	OCRO	TENU	WATR	SANI	ENER	ADED	ATTE	EDUC	EMPL	PROT	INCO	GOOD
Argentina [b]	2005 and 2012	0.7	4.5	2.6	-0.2	3.7	-0.2	3.2	2.7	0.3	0.5	2.2	-20.0	
Bolivia (Plurinational State of)	2003 and 2011	-0.6	-0.5	1.6	1.0	-3.0	-1.7	0.2	4.5	-0.7	1.6	1.0	-15.8	
Brazil	2005 and 2012	0.2	-0.1	-0.1	-0.5	-0.7	-0.8	-0.3	-0.2	0.8	-0.3	1.4	-2.1	0.8
Chile	2003 and 2011	-0.6	-3.3	2.8	0.1	-2.4	-0.2	-1.1	-0.7	0.0	1.6	2.5	7.0	-4.6
Colombia	2008 and 2012	0.5	-0.1	0.8	0.6	0.7	0.2	-0.4	0.0	0.1	0.5	0.1	-1.7	-1.3
Costa Rica	2005 and 2012	-1.1	-0.3	0.6	1.4	0.4	-0.6	-0.8	-1.0	-0.8	1.2	-0.6	0.8	0.9
Dominican Republic	2006 and 2012	0.0	0.3	0.8	0.4	-0.5	0.3	-0.4	0.1	-1.4	-0.4	-0.8	0.1	1.6
Ecuador	2005 and 2012	-1.1	-1.6	1.2	-1.1	-4.0	-0.4	0.5	-1.6	-0.4	3.6	0.0	0.1	5.0
El Salvador	2004 and 2012	0.9	-1.4	0.3	0.3	1.2	0.1	-0.7	-0.5	-0.9	0.8	0.2	0.5	-0.9
Guatemala	2000 and 2006	-0.6	-0.2	-0.5	0.0	0.2	-1.4	0.3	-0.9	0.2	0.5	0.0	2.5	-0.1
Honduras	2006 and 2010	-0.8	-1.2	-0.1	-0.6	-2.0	5.4	-0.6	-0.4	-1.1	1.7	0.2	0.0	-1.5
Mexico	2004 and 2012	-2.7	-1.1	0.9	1.4	-2.0	4.2	-0.7	-0.9	-0.7	0.9	0.4	1.2	-0.6
Nicaragua[d]	2005 and 2009	0.6	0.7	-0.3	0.4	1.0	0.3	-0.1	0.7	-0.7	2.9		-2.3	-0.2
Paraguay	2005 and 2011	0.5	-0.2	0.4	-1.7	0.2	0.3	-0.7	0.0	-0.6	0.0	0.8	4.0	-3.1
Peru	2003 and 2012	0.8	-0.8	1.7	-1.3	-1.7	0.2	0.5	1.0	-1.0	-0.3	1.0	-2.2	3.1
Uruguay[e]	2005 and 2012		-1.7	-5.7	0.9	4.3	2.4	3.7	2.9	0.3	-1.7	1.7	-6.8	-1.5
Venezuela (Bolivarian Republic of) [f]	2005 and 2012	-0.1	-0.4	1.0	0.7	0.4	-0.2	-1.2	0.2	-0.6	-0.7	0.7	2.7	-2.6
Simple average		**-0.2**	**-0.4**	**0.5**	**0.1**	**-0.2**	**0.5**	**0.1**	**0.3**	**-0.4**	**0.7**	**0.7**	**-1.7**	**-0.3**

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

[a] Deprivations are abbreviated as follows: HMAT=housing materials; OCRO=overcrowding; TENU=secure housing tenure; WATR=water; SANI=sanitation; ENER=energy; ADED=educational attainment of adults; ATTE=school attendance; EDUC=low education achievement; EMPL=employment; PROT=social protection; INCO=monetary income; GOOD=durable goods in the household. [b] Data refer to urban areas; information on goods in the household is not available. [c] Information not available on goods in the household.

[d] No estimate was made for deprivations in social protection for 2009 owing to a lack of information on social security affiliation and health insurance. [e] Data for Uruguay from 2005 refer to urban areas and include no information on housing materials. [f] Data refer to urban areas.

Table I.5
Latin America (15 countries): contribution of the various deprivations to overall poverty in urban areas, around 2012 [a]
(Percentages)

Country	Year	HMAT	OCRO	TENU	WATR	SANI	ENER	ADED	ATTE	EDUC	EMPL	PROT	INCO	GOOD
Nicaragua [b]	2009	6	6	7	2	11	9	9	4	3	8		24	10
Guatemala	2006	5	10	2	3	10	3	14	5	2	4	6	24	12
Honduras	2010	2	8	3	1	7	8	12	4	3	7	7	33	5
Bolivia (Plurinational State of)	2011	3	9	5	3	13	1	7	11	1	5	9	22	12
El Salvador	2012	4	7	4	5	11	4	11	2	1	5	7	28	9
Paraguay	2011	2	4	3	5	13	9	10	2	2	5	8	35	1
Mexico	2012	1	10	6	2	12	3	14	4	1	4	8	33	3
Peru	2012	10	5	8	5	6	8	7	2	1	7	8	22	13
Dominican Republic	2012	1	2	2	8	8	2	10	3	3	10	8	35	7
Colombia	2012	2	5	2	3	6	2	12	4	3	9	9	37	7
Ecuador	2012	2	5	5	5	2	1	12	3	1	11	9	39	5
Costa Rica	2012	1	3	5	4	1	1	17	4	5	10	5	39	3
Brazil	2012	0	5	3	5	10	1	15	3	4	8	7	38	1
Uruguay	2012	1	5	10	4	11	1	17	7	3	7	7	24	2
Chile	2011	0	1	12	1	2	1	8	2	2	10	10	45	4
Simple average		**3**	**6**	**5**	**4**	**8**	**4**	**12**	**4**	**2**	**7**	**7**	**32**	**6**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries shown in order of poverty incidence around 2012. Deprivations are abbreviated as follows: HMAT=housing materials; OCRO=overcrowding; TENU=secure housing tenure; WATR=water; SANI=sanitation; ENER=energy; ADED=educational attainment of adults; ATTE=school attendance; EDUC=low education achievement; EMPL=employment; PROT=social protection; INCO=monetary income; GOOD=durable goods in the household. [b] No estimate was made of the social protection indicator owing to a lack of information on health insurance and social security affiliation.

Table I.6
Latin America (15 countries): contribution of the various deprivations to overall poverty in rural areas, around 2012 [a]
(Percentages)

Country	Year	HMAT	OCRO	TENU	WATR	SANI	ENER	ADED	ATTE	EDUC	EMPL	PROT	INCO	GOOD
Nicaragua [b]	2009	8	7	6	5	9	12	9	5	4	8		17	11
Guatemala	2006	9	11	2	3	4	5	13	6	3	5	6	21	12
Honduras	2010	6	7	1	3	3	13	13	6	3	5	7	24	9
Bolivia (Plurinational State of)	2011	9	6	2	9	8	8	9	6	1	8	6	17	11
El Salvador	2012	8	8	4	5	5	10	12	4	2	5	7	21	10
Paraguay	2011	7	6	2	5	4	15	11	4	2	6	8	27	3
Mexico	2012	2	8	3	4	9	12	14	4	1	5	8	24	6
Peru	2012	13	4	2	6	4	14	9	1	2	9	7	18	12
Dominican Republic	2012	2	2	4	12	3	9	13	2	3	7	8	28	8
Colombia	2012	5	4	2	6	6	13	13	4	3	6	8	23	9
Ecuador	2012	5	5	3	6	3	6	14	4	1	11	7	25	9
Costa Rica	2012	2	3	6	4	1	10	17	5	4	8	6	29	5
Brazil	2012	1	2	6	1	4	8	17	2	4	12	8	33	2
Uruguay	2012	5	2	10	10	6	14	19	8	1	8	6	8	2
Chile	2011	2	2	14	10	1	3	15	2	2	7	10	27	7
Simple average		**6**	**5**	**4**	**6**	**5**	**10**	**13**	**4**	**2**	**7**	**7**	**23**	**8**

Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of special tabulations of data from household surveys conducted in the respective countries.
[a] Countries shown in order of poverty incidence around 2012. Deprivations are abbreviated as follows: HMAT=housing materials; OCRO=overcrowding; TENU=secure housing tenure; WATR=water; SANI=sanitation; ENER=energy; ADED=educational attainment of adults; ATTE=school attendance; EDUC=low education achievement; EMPL=employment; PROT=social protection; INCO=monetary income; GOOD=durable goods in the household. [b] No estimate was made of the social protection indicator owing to a lack of information on health insurance and social security affiliation.

V. Final remarks

In conclusion, the results of applying this index for multidimensional poverty measurement show that the deprivations suffered by the poor vary from country to country in respect of intensity and the forms they take. This heterogeneity must therefore be taken into account in drawing up effective policies to overcome poverty, as the same policy solutions are unlikely to yield similar results in all countries.

Furthermore, the evidence that poverty manifests itself in many areas shows just how urgent it is to devise and implement poverty reduction-related policies in a coordinated manner across multiple sectors. More specifically, although income insufficiencies are an important component of the set of deprivations affecting poor households, they are not the only hardships that they suffer. Since several of the non-monetary deprivations cannot be adequately resolved by marginal increases in household income, the reduction of poverty necessitates, in addition to cash transfers, substantial efforts to be made in the field of housing policy (especially concerning housing materials and overcrowding) and the provision of basic utilities (water, sanitation and energy), particularly in the poorest countries.

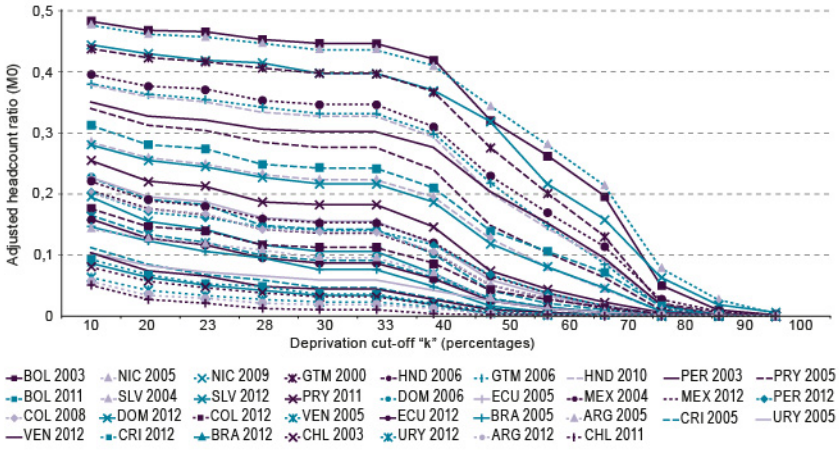
Box I.5
Robustness of the multidimensional poverty index

In the development of any measurement of poverty a series of decisions need to be taken that affect the estimates obtained. The indicators and deprivation cut-offs and their weightings must be selected, and the multidimensional poverty threshold "k" —the proportion of deprivations that are required to identify a person as poor— has to be set. If changing these parameters substantially alters the order in which countries are ranked, the index is unlikely to be sufficiently robust to provide effective guidance in public policymaking. In this case, the evidence shows that the proposed index is extremely robust to changes in these parameters.

One way of analysing degree of robustness is to modify k values without changing the structure of the index (indicators and weightings). For a ranking to be robust, a country that is poorer than another with a given k value must remain so when other k values are set. When all k values between 10% and 70% were considered, 93% of all possible comparisons between pairs of observations were robust.[a] When k values were restricted to a range of between 20% and 40%, the percentage of robust comparisons rose to 98%.

The Spearman and Kendall rank correlation coefficients are also high between the rankings of countries with the different k values used. The Kendall coefficient for k values between 10% and 70% varies between 0.89 and 0.99, while the Spearman coefficient ranges between 0.98 and 0.99. The robustness of the index to changes in the k value is shown in the figure below, which presents the adjusted headcount ratios (M0) with the various k values for the 34 observations.[b]

Latin America (17 countries): adjusted headcount ratio (M0) of extreme poverty with different k values, around 2005 and 2012



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

The robustness of [illegible] was found that structure (indicators, cu[illegible] observations were checked. Twenty-nine possible structures (specifications) were analysed, including the following:

- 14 structures were estimated for all countries and years. The structures had different weightings and sets of indicators, and seven alternative k values (of between 10% and 70%) were robust to these 98 variants. When the alternatives were restricted to a narrower range of three k values, 20%, 30% and 40%, the proportion of robust pairs of combinations rose to 91%.
- the same 14 structures were also estimated for all countries and years but different monetary cut-offs (using both the poverty

Box I.5 (concluded)

line and the indigence line) and seven alternative k values (from 10% to 70%) were used, resulting in a total of 196 variants. It was found that 84% of all possible comparisons between pairs of observations were robust to these 196 variants. When the alternatives were restricted to a narrower range of three k values, 20%, 30% and 40%, the proportion of robust pairs of combinations rose to 90%.

- 29 structures were also estimated uniquely for observations without any missing indicators,[11] with k values ranging from 10% to 70% (203 alternative specifications). It was found that 81% of all possible pairs of comparisons were robust. When the alternatives were restricted to a narrower range of three k values, 20%, 30% and 40%, the proportion of robust pairs of combinations rose to 88%.

Source: Economic Commission for Latin America and the Caribbean (ECLAC). [a] With 34 observations (17 countries at two points in time), there are 561 possible pairs of countries.
[b] The figure shows more k values close to the value actually used, 23%.
[c] The observations are: Brazil, 2005 and 2012; Colombia, 2008 and 2012; Costa Rica, 2005 and 2012; Dominican Republic, 2012; Ecuador, 2005 and 2012; El Salvador, 2004 and 2012; Guatemala, 2000 and 2006; Honduras, 2010; Mexico, 2012; Nicaragua, 2005; Paraguay, 2005 and 2011; Peru, 2003 and 2012; Plurinational State of Bolivia, 2011; and Uruguay, 2012.

Box I.6
Redundancy analysis of the indicator of income deprivations

Given that income enables the purchase of a variety of goods and services, its inclusion in the multidimensional poverty index made it necessary to ascertain whether there redundancy exists vis-a-vis non-monetary indicators of deprivation. This was determined for all possible pairs of deprivation using a correlation indicator, Cramer's V, and a measure of redundancy, the R coefficient, developed by Alkire and Ballon (2012).

The table summarizes the results of these measurements for income and other indicators. Analysis of the 34 observations (two years for each of the 17 countries under review) with Cramer's V yields a low average correlation between income deprivation and deprivation in non-monetary indicators, less than 0.25 in most cases. The lowest correlations were found in respect of deprivation in housing tenure (0.08), followed by school attendance (0.14) and schooling gap (0.15), while the highest were with deprivation in durable goods (0.25), educational attainment (0.3) and social protection (0.33).

The R coefficient indicates the degree of co-occurrence of a pair of deprivations as a proportion of the minimum marginal deprivation rate between the pair. In other words, R determines the proportion of people deprived in a given indicator "A" who are also deprived in another indicator "B" (where B is the indicator with the higher rate of deprivation). The table below shows that, in line with the findings of the correlation coefficient, the income deprivation indicator has the highest level of redundancy vis-avis the indicators on social protection (0.75) and durable goods (0.67). Moreover, an average R coefficient of 0.75 indicates that one in four people who are deprived in one of these indicators is not deprived in the other. These two indicators should therefore not be used simultaneously, as such people would be ignored by the poverty indicator, thus increasing the risk of failing to identify some poor individuals as poor (exclusion error).

In sum, the empirical evidence suggests that it is not redundant to include the income deprivation indicator in the multidimensional poverty index. Even when measuring deprivations which most often occur concurrently with income deprivations, excluding the income indicator would make it more difficult for the index to correctly identify people living in poverty.

Latin America (17 countries): correlation and redundancy between deprivation in income and non-monetary indicators

Income deprivation in relation to	Cramer's V (Correlation indicator)			R coefficient (Redundancy indicator)		
deprivation in the following indicators	Average [a]	Minimum	Maximum	Average [a]	Minimum	Maximum
Housing						
Housing materials	0.19	0.02	0.45	0.63	0.16	0.93
Overcrowding	0.25	0.08	0.43	0.65	0.34	0.86
Tenancy	0.08	-0.03	0.28	0.50	0.15	0.83
Basic utilities						
Drinking water	0.14	0.03	0.26	0.56	0.18	0.89
Sanitation	0.19	0.03	0.33	0.59	0.31	0.89
Energy	0.22	0.03	0.47	0.61	0.10	0.92
Education						
Educational attainment of adults	0.30	0.11	0.42	0.64	0.21	0.94
School attendance	0.14	0.03	0.24	0.57	0.11	0.87
Schooling gap	0.15	0.04	0.25	0.64	0.11	0.90
Employment and social protection						
Employment	0.15	0.06	0.25	0.52	0.30	0.83
Social protection	0.33	0.10	0.49	0.75	0.46	0.94
Living standard						
Durable goods	0.25	0.05	0.47	0.67	0.32	0.90

Source: Economic Commission for Latin America and the Caribbean (ECLAC). [a] Simple average.

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Annex

Table I.A.1
Latin America (18 countries): poverty and indigence indicators, 1990-2013 [a]
(Percentages)

Country	Year	Poverty [b]				Indigence			
		Households	Population			Households	Population		
		Incidence (H)	Incidence (H)	Poverty gap (PG)	Poverty gap squared (FGT2)	Incidence (H)	Incidence (H)	Poverty gap (PG)	Poverty gap squared (FGT2)
Argentina [c]	1990 [d]	16.2	21.2	7.2	3.4	3.5	5.2	1.6	0.8
	1999	16.3	23.7	8.6	4.3	4.3	6.6	2.1	1.1
	2004	27.3	34.9	16.0	10.0	11.7	14.9	6.8	4.6
	2011	4.3	5.7	2.3	1.5	1.8	1.9	1.1	0.8
	2012	3.4	4.3	1.9	1.3	1.7	1.7	1.0	0.8
Bolivia (Plurinational State of)	1989 [e]	48.9	52.6	24.5	15.0	21.9	23.0	9.7	6.1
	1999	54.7	60.6	33.9	24.1	32.5	36.4	20.3	14.7
	2002	55.5	62.4	34.4	23.8	31.7	37.1	19.5	13.5
	2009	36.3	42.4	19.8	12.7	18.2	22.4	11.0	7.3
	2011	31.2	36.3	15.5	9.4	15.6	18.7	8.1	4.9
Brazil	1990	41.4	48.0	23.5	14.7	18.3	23.4	9.7	5.5
	1999	29.9	37.5	17.0	10.2	9.6	12.9	5.3	3.3
	2001	30.0	37.5	17.3	10.7	10.0	13.2	5.8	3.8
	2012	14.5	18.6	7.6	4.6	4.8	5.4	2.8	2.0
	2013	14.1	18.0	7.6	4.7	5.3	5.9	3.1	2.3
Chile	1990	33.3	38.6	14.9	8.0	10.6	13.0	4.4	2.3
	1998	17.8	21.7	7.5	3.8	4.6	5.6	2.0	1.1
	2003	15.3	18.7	6.3	3.2	3.9	4.7	1.7	1.0
	2011	9.2	10.9	3.5	1.8	3.0	3.1	1.3	0.9
	2013	6.5	7.8	2.5	1.3	2.3	2.5	1.0	0.7
Colombia	1994	47.3	52.5	26.6	17.5	25.0	28.5	13.8	9.1
	1999	48.7	54.9	25.6	15.7	23.2	26.8	11.2	6.9
	2002 [f]	42.2	49.7	21.9	12.8	14.3	17.8	6.8	3.7
	2012 [f]	26.7	32.9	12.9	7.1	8.2	10.4	3.8	2.1
	2013 [f]	24.8	30.7	11.8	6.4	7.3	9.1	3.3	1.8
Costa Rica	1990	23.6	26.3	10.7	6.5	10.0	10.1	4.8	3.4
	1999	18.2	20.3	8.1	4.8	7.5	7.8	3.5	2.3
	2002	18.6	20.3	8.4	5.2	7.7	8.2	3.9	2.7
	2012 [g]	15.4	17.8	6.9	4.0	6.3	7.3	3.1	1.9
	2013 [g]	15.6	17.7	6.9	4.0	6.4	7.2	3.1	1.9
Dominican Republic	2002	42.2	47.1	20.9	12.6	18.2	20.7	8.8	5.3
	2008	40.1	44.3	20.2	12.1	20.4	22.6	8.8	5.0
	2012	37.9	41.2	18.0	10.4	18.4	20.0	7.8	4.4
	2013	36.9	40.7	17.7	10.2	18.3	20.2	7.6	4.1
Ecuador [c]	1990	55.8	62.1	27.6	15.8	22.6	26.2	9.2	4.9
	1999	58.0	63.5	30.1	18.2	27.2	31.3	11.5	6.3
	2002	42.6	49.0	20.8	11.8	16.3	19.4	6.9	3.7
	2011	27.9	32.4	11.4	5.7	9.0	10.1	3.3	1.7
	2013	28.2	33.5	11.6	5.7	8.9	10.9	3.2	1.6
El Salvador	1995	47.6	54.2	24.0	14.3	18.2	21.7	9.1	5.6
	1999	43.5	49.8	22.9	14.0	18.3	21.9	9.4	5.8
	2001	42.9	48.9	22.7	14.0	18.3	22.1	9.5	5.7
	2012	38.9	45.3	16.7	8.4	10.9	13.5	3.9	1.7
	2013	35.5	40.9	14.9	7.4	10.1	12.5	3.5	1.5
Guatemala	1989	63.0	69.4	35.9	23.1	36.7	42.0	18.5	11.2
	1998	53.5	61.1	27.3	15.4	26.1	31.6	10.7	5.1
	2002	52.8	60.2	27.0	15.4	26.9	30.9	10.7	5.5
	2006	46.7	54.8	25.5	15.2	22.7	29.1	11.3	5.8

Table I.A.1 (concluded)

Country	Year	Poverty[b]				Indigence			
		Households	Population			Households	Population		
		Incidence (H)	Incidence (H)	Poverty gap (PG)	Poverty gap squared (FGT2)	Incidence (H)	Incidence (H)	Poverty gap (PG)	Poverty gap squared (FGT2)
Honduras	1990	75.2	80.8	50.2	35.9	53.9	60.9	31.5	20.2
	1999	74.3	79.7	47.4	32.9	50.6	56.8	27.9	17.5
	2002	70.9	77.3	45.3	31.2	47.1	54.4	26.6	16.2
	2010	63.0	69.2	39.1	26.7	39.5	45.6	22.8	14.5
Mexico	1989	39.0	47.7	18.7	9.9	14.0	18.7	5.9	2.7
	1998	38.0	46.9	18.4	9.4	13.2	18.5	5.3	2.2
	2002	31.8	39.4	13.9	6.7	9.1	12.6	3.5	1.4
	2010	29.3	36.3	12.8	6.3	9.8	13.3	4.1	1.9
	2012	29.9	37.1	12.7	6.1	10.4	14.2	4.2	1.8
Nicaragua	1993	68.1	73.6	41.9	29.3	43.2	48.4	24.3	16.2
	1998	65.1	69.9	39.4	27.3	40.1	44.6	22.6	15.1
	2001	63.0	69.4	37.1	24.5	36.5	42.5	19.2	12.0
	2009	52.0	58.3	26.1	15.2	25.1	29.5	11.7	6.3
Panama	1991[c]	26.0	31.0	12.8	7.6	9.5	10.8	5.0	3.3
	1999[c]	15.8	19.5	7.0	3.8	4.6	5.5	2.2	1.3
	2002	30.0	36.9	16.8	10.2	14.4	18.6	7.6	4.3
	2011	17.7	24.0	9.5	5.2	7.6	11.3	4.0	2.0
	2013	17.4	23.2	10.1	6.1	8.7	12.2	5.3	3.1
Paraguay	1990	36.8	43.2	16.1	8.0	10.4	13.1	3.6	1.5
	1999	50.3	59.0	29.1	18.4	25.0	31.8	14.1	8.6
	2001	50.7	59.7	28.7	18.0	25.2	31.3	13.7	8.2
	2012	42.1	47.3	20.6	12.1	20.4	23.6	9.7	5.5
	2013	35.2	40.7	16.6	9.3	16.8	19.2	7.1	3.9
Peru	1997	40.4	47.5	20.7	12.0	20.3	25.0	10.1	5.6
	1999	42.3	48.6	20.6	11.7	18.7	22.4	9.2	5.1
	2001[i]	48.7	54.7	24.7	14.5	20.4	24.4	9.6	5.2
	2012[i]	23.1	25.8	9.2	4.6	5.2	6.0	1.8	
	2013[i]	21.1	23.9	8.1	3.9	3.8	4.7	1.3	0.5
Uruguay[c]	1990	11.8	17.9	5.3	2.4	2.0	3.4	0.9	
	1999	5.6	9.4	2.7	1.2	0.9	1.8	0.4	0.2
	2002	9.3	15.4	4.5	1.9	1.3	2.5	0.6	0.2
	2012	3.9	6.1	1.7	0.7	0.8	1.2	0.3	0.1
	2013	3.7	5.7	1.6	0.6	0.7	0.9	0.2	0.1
Venezuela (Bolivarian Republic of)	1990	34.2	39.8	15.7	8.5	11.8	14.4	5.0	2.4
	1999	44.0	49.4	22.6	13.7	19.4	21.7	9.0	5.5
	2002	43.3	48.6	22.1	13.4	19.7	22.2	9.2	5.7
	2012[j]	21.2	25.4	9.1	4.9	6.0	7.1	2.7	1.7
	2013[j]	27.3	32.1	12.1	6.7	8.8	9.8	3.9	2.5
Latin America[k]	1990	41.0	48.4			17.7	22.6		
	1999	35.4	43.8			14.1	18.6		
	2002	36.1	43.9			14.6	19.3		
	2012	22.0	28.1			8.7	11.3		
	2013	22.0	28.1			9.1	11.7		

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

[a] H = headcount ratio; PG = Poverty gap; FGT2 = Foster, Greer and Thorbecke index. [b] Includes households (and persons) living in indigence or extreme poverty. [c] Urban areas. [d] Greater Buenos Aires.

[e] Eight departmental capitals plus the city of El Alto.

[f] Figures provided by the National Administrative Department of Statistics (DANE) of Colombia, not comparable with those of previous years. [g] Figures not comparable with those of previous years, owing to a change in the survey used. [h] Metropolitan area of Asuncion.

[i] Figures of the National Institute of Statistics and Informatics of Peru. Figures not comparable with those of previous years.

[j] Figures of the National Institute of Statistics (INE) of the Bolivarian Republic of Venezuela, not comparable with those of previous years. [k] Estimate for 18 countries in the region plus Haiti. Weighted average.
