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**Working Paper**

## Mapping inclusive growth

Working Paper, No. 105

**Provided in Cooperation with:**

International Policy Centre for Inclusive Growth (IPC-IG)

*Suggested Citation:* Almeida Ramos, Raquel; Ranieri, Rafael; Lammes, Jan-Willem (2013) : Mapping inclusive growth, Working Paper, No. 105, International Policy Centre for Inclusive Growth (IPC-IG), Brasilia

This Version is available at:

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# MAPPING INCLUSIVE GROWTH

Working Paper number 105

March, 2013

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*The International Policy Centre for Inclusive Growth is jointly supported by the Poverty Practice, Bureau for Development Policy, UNDP and the Government of Brazil.*

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Print ISSN: 1812-108X

# MAPPING INCLUSIVE GROWTH

Raquel Almeida Ramos, Rafael Ranieri and Jan-Willem Lammens\*

## 1 INTRODUCTION

Since its emergence around the turn of the century the concept of inclusive growth has been substantially debated by researchers and practitioners, has increasingly gained space in domestic and international political circles, has inspired the design of and generated projects and policies, and has impacted the views and the lives of many people. While the conceptual debate and the practical application of various definitions of inclusive growth have taken place simultaneously, they have recently been joined by incipient attempts to measure inclusive growth.<sup>1</sup> With convergence towards a consensual definition of inclusive growth still nowhere in sight, these attempts are not just empirical analyses but fundamentally exploratory exercises in defining the meaning of inclusive growth.

In addition to identifying changes within and across countries in elements understood to pertain to what constitutes inclusiveness, since a measurement depends upon the conceptualisation of what is to be measured, each initiative aimed at measuring inclusive growth essentially tests a conceptualisation of inclusive growth. Shedding light onto whether a country or group of countries went through changes in inclusiveness is valuable, as it produces knowledge about certain core aspects and their direction of change in contemporary societies during a particular period. This in turn provides a basis for enquiring into what is behind identified changes or the lack of change, thereby being instrumental to assessing the role of policies and circumstantial factors in societal transformations.

At the same time, the application of an operationalised concept to measure inclusive growth facilitates the process of evaluating the suitability of a tentative definition, as it clarifies what that definition actually signifies. The empirical result of applying a definition to measure inclusive growth is instrumental in considering whether it makes sense to conceptualise inclusive growth in a certain way. In fact, it helps the consideration of both what is at the heart of the notion of inclusiveness and whether a definition really captures that.

The still limited number of studies seeking to measure inclusive growth replicate the orientation of the debate towards a more comprehensive definition than the focus on the income condition of poor people that characterises definitions of pro-poor growth. Yet they also replicate the understanding that even though inclusive growth involves dimensions other than income, poverty and inequality are central to the meaning of inclusiveness. Within this general orientation they emphasise different aspects and offer diverse avenues for thinking about and empirically assessing inclusive growth.

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Studying patterns of growth focused on the poverty elasticity of growth, Habito (2009) emphasised the relationship between changes in poverty and growth, while exploring differences between a one-dimensional and a multidimensional measure of poverty. Despite the characteristically pro-poor framework, the concern with incorporating multiple dimensions is in line with other attempts to measure inclusive growth. The focus on the relationship between growth and poverty, however, is absent from other initiatives, which centre their attention on the constituent elements of inclusiveness—essentially trying to measure changes in inclusiveness accompanying growth, with growth virtually left as a given.

The incorporation of multiple dimensions has involved either the tentative construction of inclusive growth indices or the structuring of frameworks of analysis that do not presume to compile a consolidated index. The former seek a sensible composite measure that constitutes a common denominator allowing longitudinal and cross-country comparisons. As shown by McKinley's (2010) application of his multidimensional inclusive growth index to a number of case studies, an index can be quite serviceable for assessing inclusive growth within and across countries. This virtually makes the development of a reliable index a standard goal; the reporting by the African Development Bank (AfDB, 2012) that it is developing its own inclusive growth index attests to that. But an index nonetheless carries shortcomings inherent to the demand for criteria to both harmonise the measurement of different dimensions and ascribe weights to each of them to combine them. The latter way of assessing inclusive growth instead focuses on the analytical strength of combining diverse measures that pertain to inclusiveness without the assumption that they are necessarily arithmetically congruent. This approach lacks the ease of comparability provided by an index but is also free of the vices of an index and can offer substantial analytical serviceability for assessing not only changes in inclusiveness but also what is behind them. For instance, Ianchovichina and Lundstrom (2009) proposed a framework of analysis focused on identifying barriers to greater inclusiveness that, when applied to the case of Zambia, showed particular aptitude for informing policymaking.

The concern with contemplating multiple dimensions explicitly or implicitly embeds the notion that inclusiveness involves both participation in and benefitting from growth, as conceptualised by Kakwani and Pernia (2000). Benefits refer to outcomes, whereas participation refers to process. The diverse dimensions included in attempts to assess inclusive growth cover both aspects, with the corresponding indicators referring to either one or the other, or in some cases to both simultaneously. Income poverty and inequality, invariably central indicators, refer to the distribution of benefits, as do most indicators utilised. Yet the understanding that participation in the growth process matters has been generating some indicators seeking to capture the societal implications of the way growth takes place. In this vein, the concept of productive employment has emerged prominently in the debate on inclusive growth, involving the assessment of active and constructive engagement in a society's economic trajectory, at the same time that an increase in the number of people productively employed can be interpreted as a positive outcome of the growth process. For instance, both Ianchovichina and Lundstrom (2009) and McKinley (2010) include productive employment in their approaches to assessing inclusive growth.

Building on the ongoing debate on inclusive growth, we provide an empirical analysis of changes in inclusiveness in 43 developing countries from the mid-1990s to the mid-2000s. The analysis includes three core aspects of inclusiveness: poverty and inequality as outcome dimensions and employment as a dimension pertaining more centrally to process but also accounting for outcome. By mapping changes in inclusiveness, the analysis offers a window onto recent transformations in the developing world.

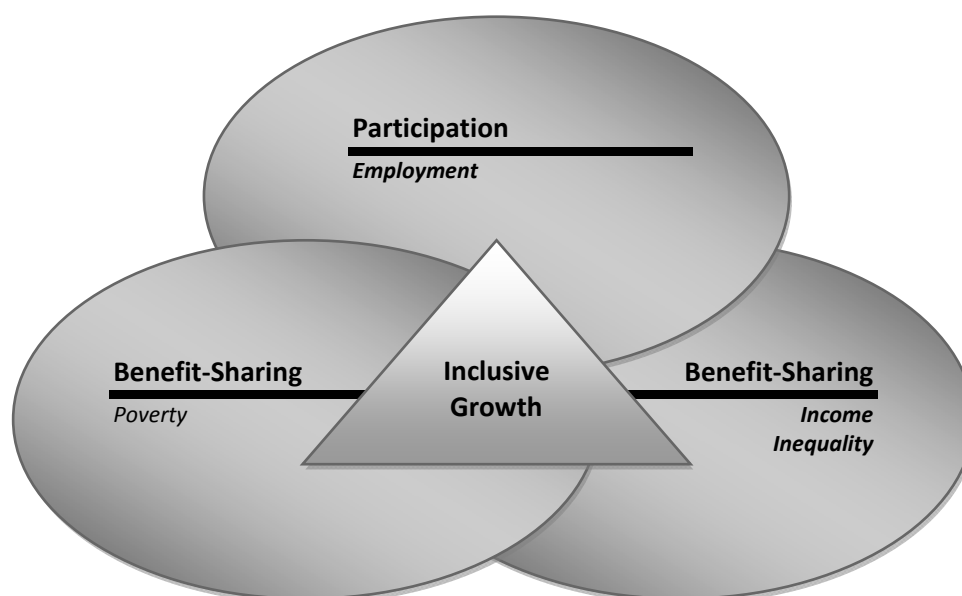
## 2 OUR ANALYSIS OF INCLUSIVE GROWTH

As mentioned in the previous section, different interpretations of the concept of inclusive growth circulate in the literature, and reaching a consensus about it seems a distant goal, but there is a clear path from the focus on just poverty and inequality towards an analysis that, beyond these two, includes other indicators. The analysis developed in this paper embraces this conceptual shift. Based on the understanding of inclusive growth as an economic process characterised by an equitable distribution of its benefits and by comprehensive participation of the population in this process, it is centrally concerned with the consequences of economic growth rather than with levels of growth. What is important for the analysis is not how much growth a country realised, but rather how much inclusiveness was generated in that *period of time*, which is generally characterised by growth.

The analysis is divided into the two dimensions of inclusive growth: benefit-sharing and participation. Figure 1 presents the two dimensions and their indicators. Given this definition based on two complementary dimensions, the paper analyses inclusive growth in two steps. The first part focuses on the benefit-sharing dimension, through an analysis of income inequality and poverty indicators. The second part includes the participation dimension in the analysis by adding employment indicators.

FIGURE 1

### **Inclusive Growth: Dimensions and Indicators**



The benefit-sharing dimension looks into whether the process led to a decrease in poverty and in income inequality. This segment of the analysis is aligned with the concept of 'relative pro-poor growth', which differs from 'absolute pro-poor growth' due to the understanding that, for growth to be pro-poor, poor people's income must grow faster than that of wealthier people, resulting in a decrease in inequality (Grosse et al., 2008).<sup>2</sup>

The participation dimension is the second significant dimension in conceptualising inclusive growth and in differentiating it from pro-poor growth. The participation dimension looks into how the society is involved in the process, given that such involvement is essential for promoting social coherence and for capacity-building, which are crucial for the sustainability of an inclusive growth process. Analysed in the economic sphere, a participatory process can be thought of as characterised by generating employment for a significant part of a country's population. The analysis developed in this paper, therefore, looks into employment ratios as a proxy for participation.

Showing the results in each of these constituent elements separately is constructive for three main reasons: it presents a clear picture of each indicator; it highlights the limitations of each single indicator; and appreciating measures that are meaningful on their own before compiling an index with them helps us to consider the meaning and usefulness of the index.

The analysis with the composite index of the three indicators starts with a study of the *level of inclusiveness of the economies* at determined points in time: at the starting point, circa 1996, and 10 years later, circa 2006. Based on the notion of inclusive growth as a *process that produces changes in levels of inclusiveness*, the paper then analyses the changes in the indicators between the two points in time. For this analysis, the most important aspect is if the economic growth seen over the 10 years was inclusive—i.e. if it led to an increase in the level of inclusiveness, which is calculated based on these three indicators.

## 2.1 METHODOLOGY<sup>3</sup>

To generate a cross-national comparison on the outcomes of inclusive growth processes, and to propose a roadmap towards best practices, this paper devises a simple analytical tool that utilises the indicators identified above—poverty, inequality and employment—in parallel to real GDP per capita growth considered over time. Due to limitations, the methodology should be regarded as providing a global perspective on the extent of inclusive growth cross-nationally. It should be used as a means to determine a periodic snapshot of the evolution of inclusiveness in each country setting, not as a regular national-level monitoring tool. The approach allows for a standard mapping operation of countries, subject to data availability, and constitutes a first step when looking for best practices in inclusive growth and its desired policy frameworks.

Before devising a composite Inclusiveness Index (II), we carefully take into consideration the initial state of each country's poverty and inequality levels at the time points being studied and make a primary assessment of the observed evolution in the indicators. To this analysis we add employment interpreted through the participation dimension of our definition of inclusive growth. Employment aggregate indicators are, however, controversial when used in a comparative constellation; how the data should be interpreted is, therefore, crucial (cf. Methodology).

This paper draws on existing information sources such as World Bank data for poverty, the Standardized World Income Inequality Database (SWIID) for income inequality, the employment-to-population ratios (EPRs) provided by the International Labour Organization (ILO) and GDP per capita growth (in local currency units) for economic growth. It integrates data that were previously analysed separately, merging them into one modular approach.

### **2.1.1 Timeframe**

This paper analyses data from two points in time: 1996 and 2006. Because of a significant lack of data, a standard multiple imputation routine was used. To anticipate missing values, the simple average of existing data circa 1996 and circa 2006 was calculated, being considered a window of three years for each point. This enabled us to avoid discarding information about the other dataset variables in the analysis.

### **2.1.2 Data sources**

#### **Poverty (headcount ratio at US\$2 a day PPP)**

The poverty data are provided by the World Bank's Development Research Group's (WBDRG) global update (released in February 2012). The poverty line this paper considers is the same as the median poverty line for all developing countries, which constitutes US\$2/day purchasing power parity (PPP).

#### **Inequality**

As a measure for inequality this paper turns to the Standardized World Income Database (SWIID) Version 3.1. The SWIID Gini coefficient is considered a useful starting point for looking at inequality; however, it is inadequate. The Gini coefficient gives a summary for the whole distribution without providing direct information about the nature of changes within the entire range. Therefore, it should be complemented with supplementary national indicators that better reflect the particular distributional shifts within the population; this does, however, conflict with the cross-national mapping purpose of this paper. The simplicity of the Gini coefficient allows cross-national comparison of inequality independent of absolute incomes over time.

#### **Employment**

To compare the employment-generating capacity of economies, we consider the indicator employment-to-population ratio (EPR), 15+, total (percentage) provided by the ILO. As a general guide, EPRs that are lower than 60 per cent are likely to indicate some malfunctioning in the labour market (ILO, 2011), which is deemed negative for participation. EPRs which are much higher than this level should also be assessed as non-inclusive, since they are only observed in countries where the level of poverty is very high, being generally regarded as evidence of poor working conditions and insufficient remuneration. However, the specific areas of friction between positive and negative EPRs can only be determined with an assessment of other labour market indicators, and, even then, only when analysing in depth the socio-economic country context (ILO, 2011).

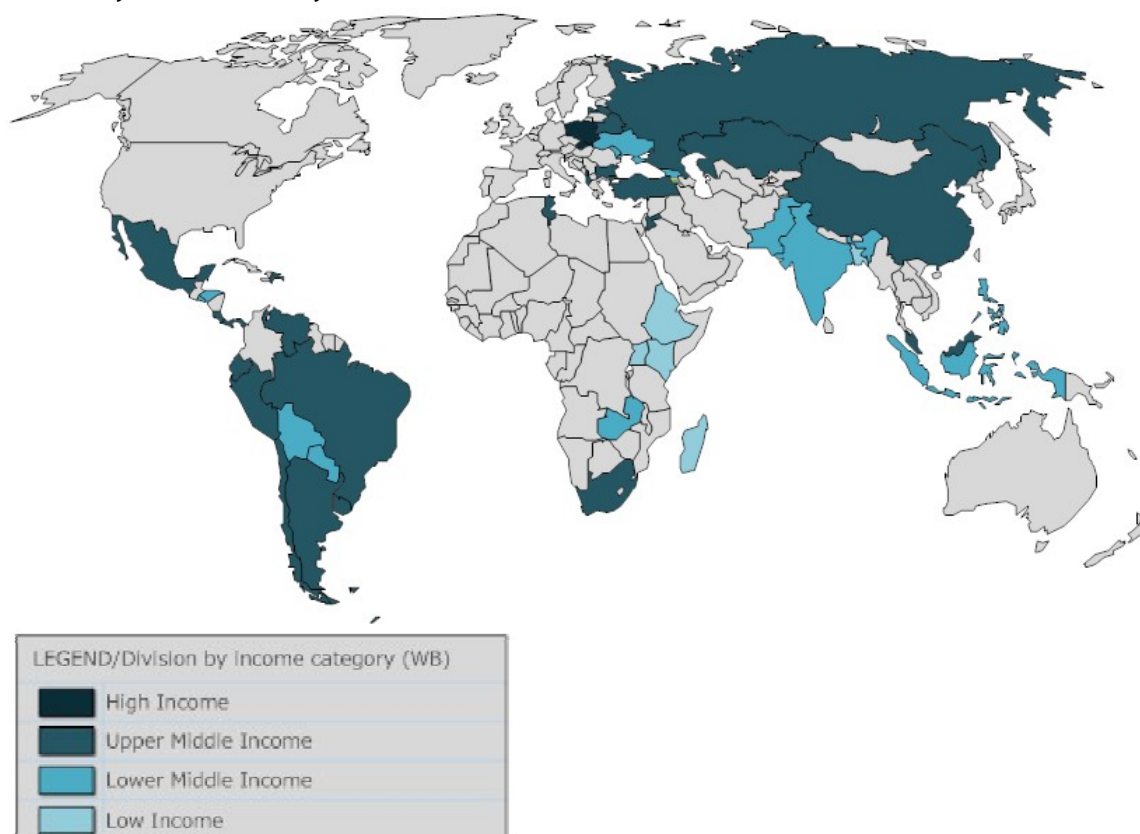


### 2.1.3 Countries analysed

The sample of developing countries ultimately depended on data availability. When data were missing (after the imputation routine described above), countries were simply excluded from the selection. The initial ambition of mapping out the entire developing world was impeded due to a considerable lack of data. However, this paper assesses 43 countries (see methodology in the Annex): Albania, Argentina, Armenia, Bangladesh, Belarus, Bolivia, Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, Dominican Rep., Ecuador, El Salvador, Ethiopia, Georgia, Honduras, India, Indonesia, Jordan, Kazakhstan, Kenya, Latvia, Madagascar, Malaysia, Mexico, Moldova, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Russia, Slovak Rep., South Africa, Tunisia, Turkey, Uganda, Ukraine, Uruguay, Zambia. Figure 2 presents the income level of the countries analysed, according to World Bank 2010 classification.<sup>4</sup>

FIGURE 2

#### Analysed Countries by Income Level



### 3 BENEFIT-SHARING

This section provides an analysis of poverty and income inequality from 1996 and 2006. Based on this study, it concludes with an analysis of the benefit-sharing dimension of inclusive growth.

#### 3.1 INCOME INEQUALITY

The developing countries in our sample are a heterogeneous group in terms of income inequality. In 1996, income inequality varied from a Gini coefficient of 23 in the Slovak Republic to one of 61 in Zambia. Of the 43 countries analysed, 11 had Gini coefficients lower than 35, and 17 higher than 45—see Table 8 in the Annex and Figure 3.

In geographical terms, the lowest Gini coefficients are mostly located in Eastern Europe, followed by Central and South Asia. There are only three exceptions in these continents: Russia, Turkey and Armenia have middle-level inequality. At the opposite end of the scale, the higher Gini coefficients are highly concentrated in Latin America and sub-Saharan Africa. The average income inequality of the 43 countries increased slightly from 1996 to 2006—from 42.2 to 43. In fact, the number of countries where inequality increased is almost the same as of those where it decreased.

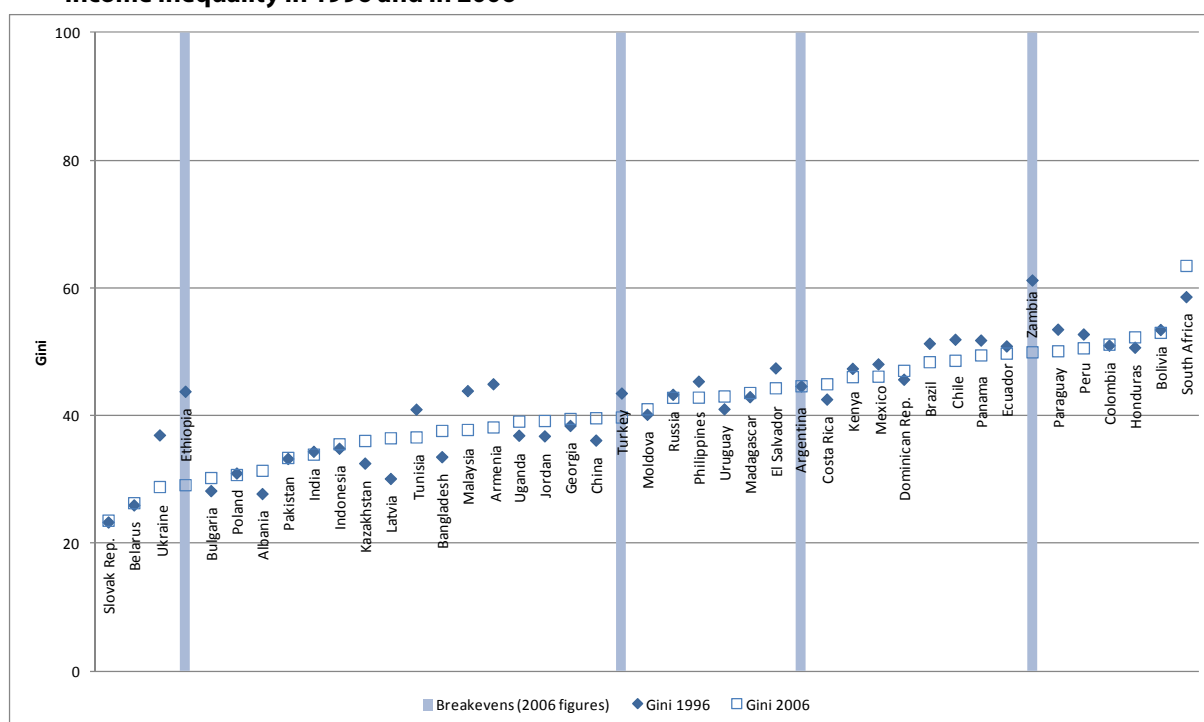
Among countries which faced a reduction in inequality, the reduction was, on average, of 8 per cent, or 3.8 percentage points. The biggest reduction was seen in Ethiopia, where the Gini coefficient reduced by 33 per cent, from 44 to 29. The reduction in the Ukraine was also notable: 22 per cent, from 37 to 29. Among this group it is also worth highlighting the development seen in Zambia, which had the highest Gini among the group, 61, circa 1996, and reduced it to 50. Surprisingly, most of the countries that faced higher than average reductions in inequality did not start from high but from middle inequality levels, between 40 and 45. Other countries in which inequality decreased, although not by so much, were Bolivia, Brazil, Chile, Ecuador, El Salvador, India, Kenya, Mexico, Panama, Paraguay, Peru, Philippines, Poland and Russia. In this group, the average Gini reduction was of 4 per cent.

In the 22 countries where inequality increased, the average increase was of 6 per cent. The countries where inequality increased more than this were Kazakhstan, Latvia, Bangladesh, South Africa (all by more than 10 per cent), China, Albania, Bulgaria and Jordan (with smaller increases). Most of these countries had low inequality starting points; indeed, almost all of them had Gini coefficients lower than 40. The exception, and the most worrisome case, is South Africa. The country faced a significant increase in inequality—of 8 per cent—coming from a very high inequality level in 1996, a Gini of 59.

Inequality increased in another 14 countries, but much less so: Argentina, Belarus, Colombia, Costa Rica, Dominican Republic, Georgia, Honduras, Indonesia, Madagascar, Moldova, Pakistan, Slovak Republic, Uganda and Uruguay. To be precise, six of these countries faced a very small increase in inequality—lower than 2 per cent. In turn, though small, the increase in inequality seen in Honduras and Colombia is very worrisome, due to these countries' very high inequality levels: a Gini of 51 in both countries.

FIGURE 3

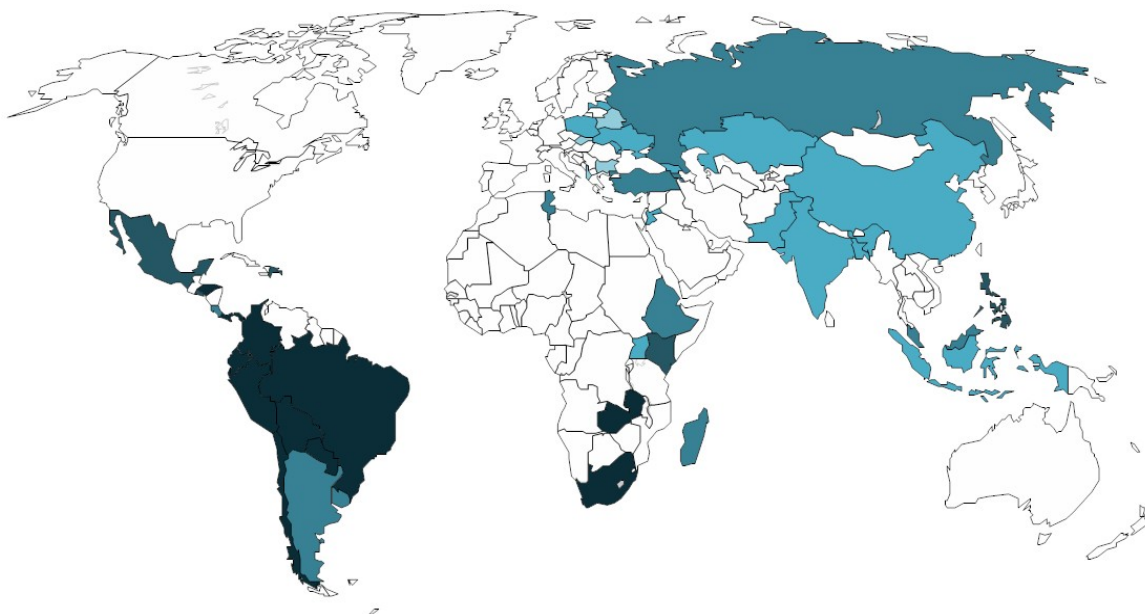
## Income Inequality in 1996 and in 2006



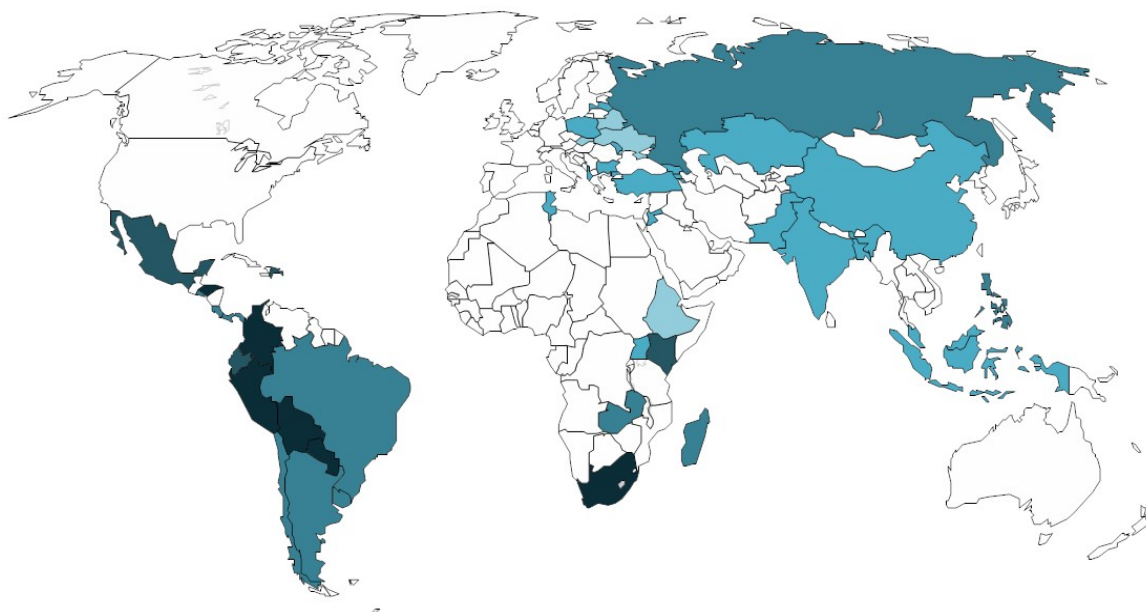
Although results varied within continents, some common paths can be observed. Sub-Saharan Africa faced the biggest average decrease in inequality, a 6.4 per cent decrease from an average starting Gini of 48 (a middle–high level). Important for this decrease were the changes seen in Ethiopia (-33 per cent) and Zambia (-18 per cent). Even leaving these countries out of the average, the average reduction in the continent would be of 3.3 per cent. This reduction is much larger than the one of 1.6 per cent seen in Latin America, a continent with a similar average inequality starting point. In the Middle East and North Africa and in East Asia and the Pacific the reductions were smaller: 2 per cent and 1.9 per cent, respectively. At the opposite end of the scale, South Asia was the continent to see the highest increase in inequality (3.8 per cent), due to the negative performance of 12 per cent seen in Bangladesh. Europe and Central Asia faced an average increase of 1 per cent.






Figure 4 and 5 present the inequality levels for circa 1996 and circa 2006. As can be seen, only a few countries managed to reduce income inequality significantly, and these were mostly countries that had middle inequality levels. The trend seen in countries with the best income distribution, of increasing inequality, is worrisome. Moreover, the countries which needed to reduce it the most, the ones with the worst income distribution, have not managed to reduce it significantly, and some have even faced an increase in inequality, as are the cases of South Africa, Honduras, Colombia and the Dominican Republic.

**FIGURE 4**  
**Inequality in the 1990s**



**FIGURE 5**  
**Inequality in the 2000s**



LEGEND/ LEVELS OF INEQUALITY (GINI)	
	LOW
	MEDIUM-LOW
	MEDIUM
	MEDIUM-HIGH
	HIGH

### 3.2 POVERTY

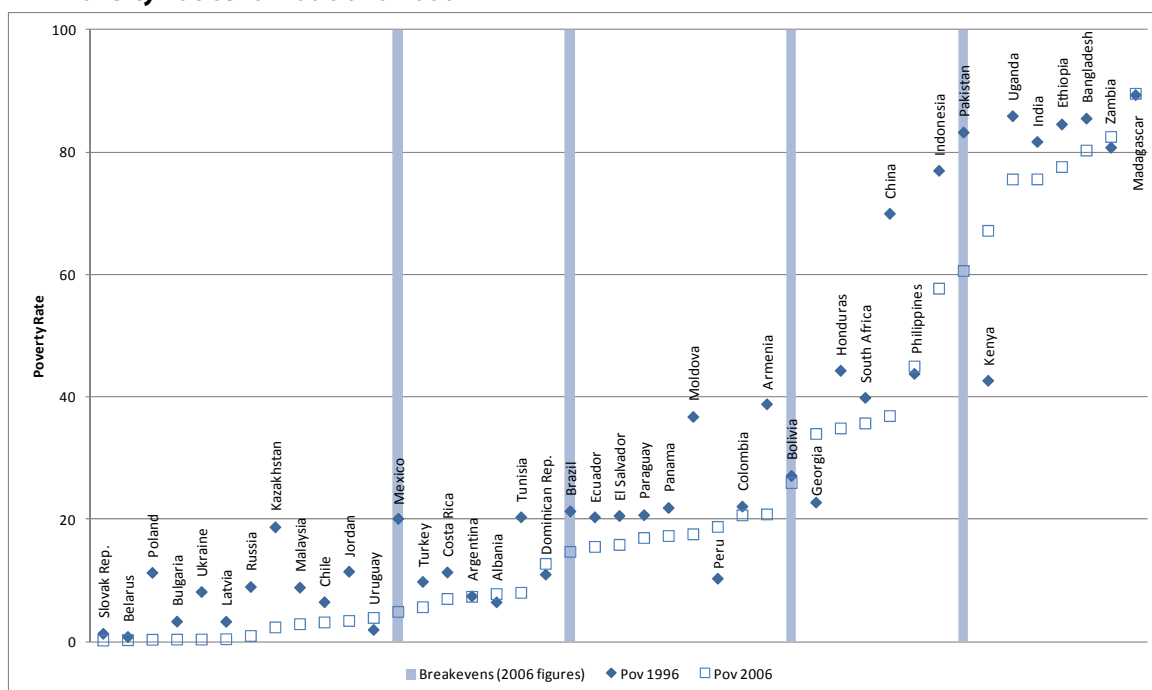
The last two decades were marked by significant improvements in terms of poverty reduction. Most notable was the enormous number of people lifted out of extreme poverty in China. However, poverty reduction occurred not only in China but in several other parts of the globe.

In 1996, poverty levels varied considerably among the 43 developing countries studied in this paper, ranging from 0.8 per cent in Belarus to 89 per cent in Madagascar. Five countries had less than five per cent of their population living under the poverty line of US\$2 a day, while in nine others more than 65 per cent of the population was poor. The average poverty ratio for all the countries in the study was 31 per cent.

The geographical distribution of poor people is clear. Considering a grouping of countries by poverty rate (see Table 9, in the Annex), the group with the lower poverty rates has a clear concentration of Eastern European countries (plus Uruguay), and the group with the highest poverty rates is composed of sub-Saharan African and South Asian countries (plus China and Indonesia). Eastern European countries had mostly low or mid-low levels of poverty in 1996 (exceptions were Kazakhstan and Georgia with middle levels and Moldova and Armenia with mid-high levels). Latin American countries varied from mid-low to middle poverty ratios (with the exception of Honduras, which had a mid-high level, and of Uruguay, as mentioned). Sub-Saharan African and South Asian countries had mid-high or high levels of poverty.

Between 1996 and 2006, poverty declined significantly among the studied countries. Figure 6 presents poverty ratios for circa 1996 and circa 2006. As it shows, poverty declined in 34 of the 43 countries. However, among the nine countries that faced an increased in poverty, three showed important increases. In Kenya, poverty increased by 57 per cent, from an already high poverty headcount ratio of 43 per cent. In Georgia the increase was of 49 per cent, from a ratio of 23 per cent; and in Peru the poverty ratio increased from 10 per cent to 19 per cent, a 90 per cent increase.

FIGURE 6  
Poverty Ratios for 1996 and 2006



Important results in terms of poverty reduction were seen among countries with low and middle poverty levels. Among countries with low poverty levels, several managed to reduce those to very low levels. In 1996, Belarus was the only country with a poverty ratio of less than 1 per cent, whereas in 2006, there were six countries under 1 per cent. The number of countries with less than five per cent of people living in poverty increased from five to 13.

The decrease in poverty was also significant among countries with medium poverty levels. As shown in Table 9 in the Annex, the average reduction in poverty rates in this group was of 27 per cent, or 5.4 percentage points. Among them, remarkable changes were seen in Kazakhstan (-87 per cent; 16 percentage points), Mexico (-75 per cent; 15 percentage points) and Tunisia (-60 per cent; 12 percentage points).

The performance of countries with middle and middle-high poverty levels diverged. In the first group, where poverty was at lower levels, the change was more significant: a reduction of 27 per cent or 5.4 percentage points, against a reduction of 12 per cent or 4.2 percentage points in the group with middle-high poverty levels. This relatively weak performance by the middle-high group was led by the very negative result of Kenya. On the other hand, Moldova and Armenia had notable results—reducing poverty by 52 and 46 per cent, respectively.

Among the countries with the highest poverty levels (more than 65 per cent), the performance diverged. A group of four countries saw a remarkable reduction—China (-47 per cent), Pakistan (-27 per cent), Indonesia (-25 per cent) and Uganda (-12 per cent); while others faced a reduction of less than 10 per cent (Ethiopia, India and Bangladesh). Madagascar and Zambia have shown the most worrisome performance: from a starting level of more than 80 per cent of the population living in poverty, both countries saw a slight increase and in 2006 had the highest poverty levels among the countries studied: 90 per cent and 83 per cent, respectively.

In conclusion, many countries managed to reduce poverty in recent years. Some presented remarkable results—such as Armenia, China, Indonesia, Moldova and Pakistan among those with the highest poverty incidence, and Mexico, Kazakhstan and Tunisia, among those with middle poverty levels.

However, poverty reduction is still a major issue in most of the developing countries studied. Some countries that had very high poverty rates did not manage to decrease it significantly, and 42 per cent of them had poverty levels above 20 per cent in 2006. This situation is particularly worrisome in light of the fact that the sample is composed mostly of middle-income countries, with only few low-income countries represented.

FIGURE 7  
**Poverty in the 1990s**

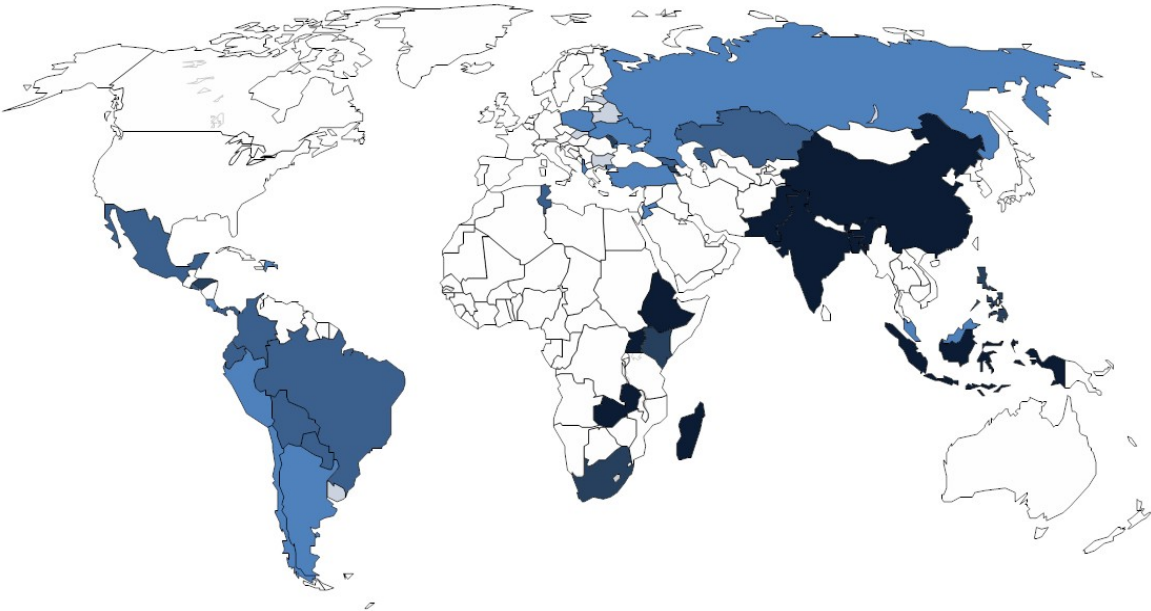
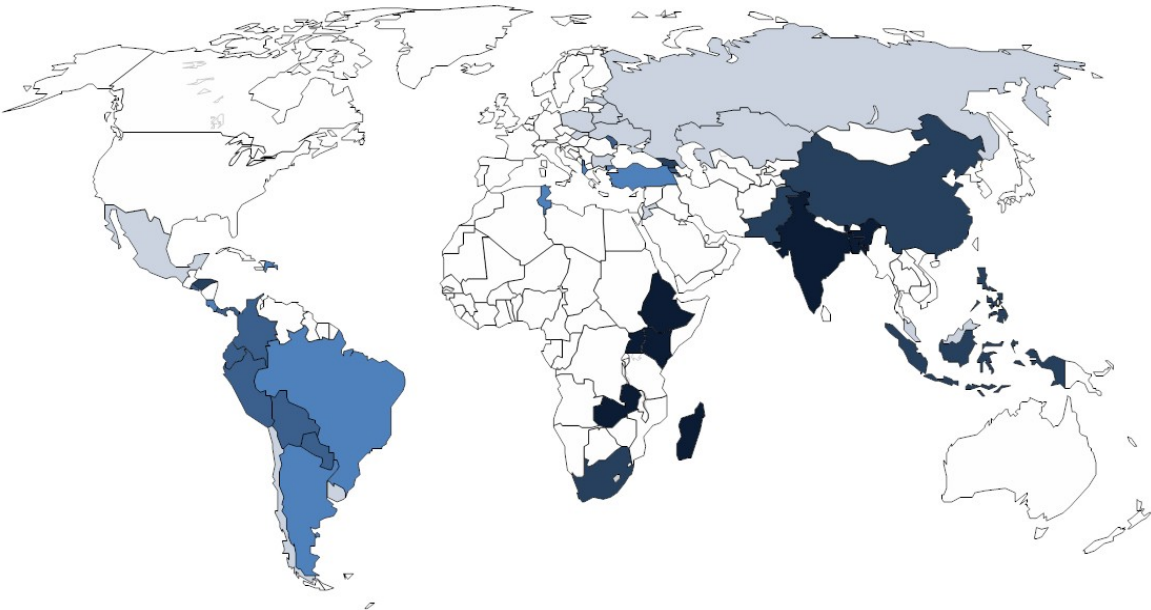







FIGURE 8  
**Poverty in the 2000s**



LEGEND/ LEVELS OF POVERTY (HEADCOUNT POVERTY RATIO)	
	LOW
	MEDIUM-LOW
	MEDIUM
	MEDIUM-HIGH
	HIGH



### 3.3 BENEFIT-SHARING

Combining the data on poverty and inequality allows us to zoom in on the benefit-sharing dimension of our definition of inclusive growth and display the resulting benefits of the different growth paths over the two points in time. For analytical purposes we combine this analysis with GDP growth rates in a later stage.

Figure 9 presents the changes seen in terms of poverty and inequality. Although the graph informs us about the direction of the changes, the intensity of that change cannot be deduced from this graph without first considering the starting levels. As the starting levels matter for assessing the true meaning of changes, they are taken into consideration later.

Countries in the upper-right and lower-right quadrants have faced an increase in inequality, and countries in the upper-left quadrant have faced an increase in poverty. The graph clearly reaffirms that the results in terms of poverty reduction were much more significant than those regarding inequality.

Countries in the lower-left quadrant reduced both poverty and inequality, having had the desired economic process in terms of inclusiveness as regards the benefit-sharing dimension. In light of the pro-poor analysis, the process seen in these countries in this period could be classified as pro-poor according to both the absolute and the relative interpretations. In this group, the performances of Malaysia, Armenia and Tunisia are notable. The performance of Ukraine is in evidence in the graph due to its lower starting point (the poverty reduction of 95 per cent was indeed a change from 8.2 per cent to 0.42 per cent poverty headcount ratio). Poland and Russia are also in this situation with regards to their poverty numbers. The changes seen in Paraguay, Brazil, Panama, Chile and Mexico were also very significant. Moreover, the large changes seen in these countries were made from relatively high starting points. An outlier in this group is Ethiopia. The performance seen in the country is intriguing: a 33 per cent decrease in inequality was not able to change poverty levels. This hints at the primacy of policies that target the poorest people first, because, although important, the changes seen in the income distribution have probably taken place in middle-income classes, not affecting the most vulnerable segments of the population.

Countries in the lower-right quadrant managed to reduce poverty but have increased inequality. The growth process seen in these countries is not inclusive due to the increase in inequality; it could be called pro-poor only in the absolute version of the concept. Seventeen countries, or almost 40 per cent of the sample, are in this situation. These countries should be praised for having managed to reduce poverty, especially when the increase in inequality was small, such as in Belarus and the Slovak Republic. In turn, although undergoing a higher increase in inequality, China's poverty reduction is particularly noteworthy given the immense number of people affected—over 500 million people lifted out of poverty. However, these countries must revert to a path of decreasing inequality if the sustainability of the process of poverty reduction and, more broadly, of expanding inclusiveness is to be guaranteed.

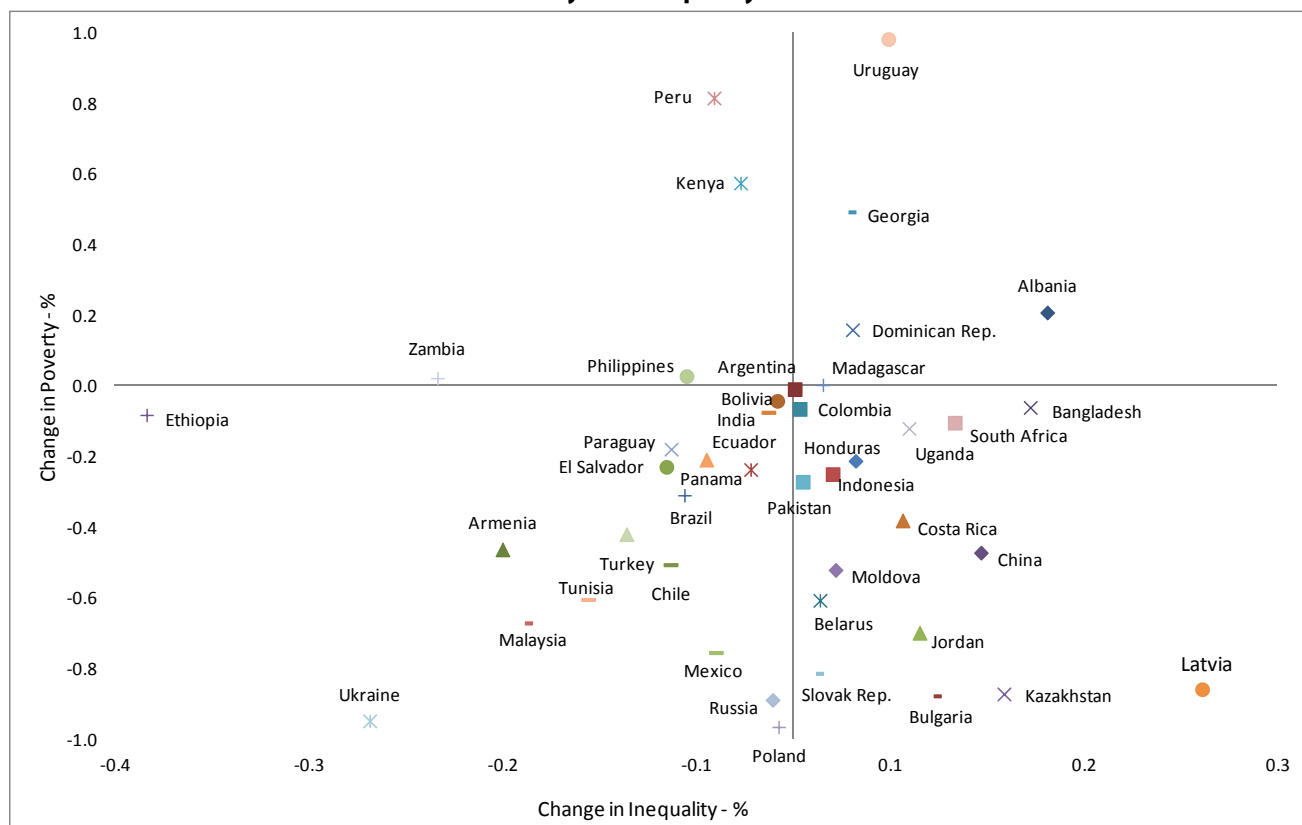
Nine of the 43 countries have increased poverty ratios. Five from this group are in a more delicate position, as they have increased both poverty and inequality—and are, therefore, in the upper-right quadrant. In terms of inclusive growth, these countries have shown the worst performance, going in the opposite direction from that desired. These are: Albania, Dominican Republic, Georgia, Madagascar and Uruguay. Of these five countries, Albania and Georgia are



the most worrisome, as the others only suffered a small percentage change; in the case of Uruguay the percentage change seems greater than it actually is due to the low starting point.

FIGURE 9

### Countries' Performance in Terms of Poverty and Inequality

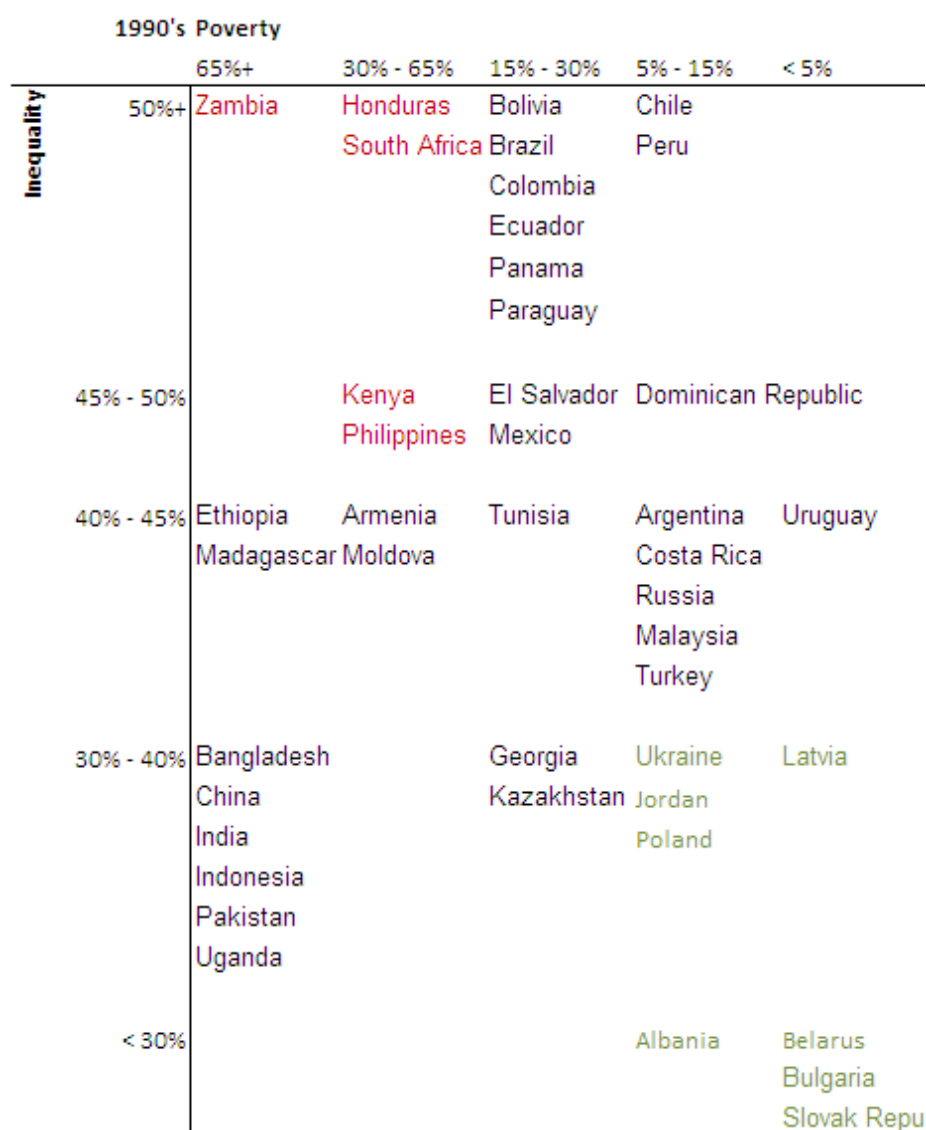


In addition to the analysis of the inclusiveness of the growth process seen in these countries within the proposed timeframe, a snapshot of the state of inclusiveness in each period separately also reveals some interesting insights.

Figures 10 and 11 present a snapshot of the situation of the inclusiveness of the growth process with regards to its benefit sharing-dimension in the two periods, circa 1996 and circa 2006, respectively. The colours refer to the countries' 'level of inclusiveness' in each period. In the lower-right area are the countries with low (less than 5 per cent) or mid-low (5 to 15 per cent) poverty and low (less than 30 per cent) or mid-low (30 to 40 per cent) inequality. These countries, shown in green, can be regarded as more inclusive than the others, as they have achieved a better pattern of distribution of the outcomes of growth. These countries were, in 1996: Belarus, Bulgaria, Slovak Republic, Albania, Latvia, Ukraine, Jordan and Poland.

In the upper-left area are the countries with high (over 65 per cent) or mid-high (30 to 65 per cent) poverty and high (over 50 per cent) or mid-high (45 to 50 per cent) income inequality. These countries, in red colours, should urgently rethink their policy framework considering how the benefits of growth could be better distributed among the population. These countries were, in 1996: Zambia, Honduras, South Africa, Kenya and the Philippines (see Figure 10).

FIGURE 10

**Poverty and Inequality in 1996**

In Figure 11 it is also possible to see if a country has changed its position from circa 1996 to circa 2006, by the signs in the parenthesis next to the country's name. A positive sign (+) indicates a positive change (a reduction in either the poverty or inequality levels); a negative one (-) indicates a negative performance. The first sign (x, ) points to changes in poverty, and the second one (, x) refers to changes in inequality. Stability is not illustrated. A double sign (++) or (--) indicates that the country moved two categories.

As in Figure 10, countries in the worst situation are presented in red. These are the countries where policies aiming for inclusive growth are a must. Kenya presents the most worrisome situation, as it has moved towards the group with the highest poverty level and kept inequality stable at a mid-high level. Honduras and South Africa have not changed categories, presenting high inequality and mid-high poverty in circa 2006. Zambia changed to a group of lower inequality (from high to a mid-high level) and kept poverty stable.

The Philippines moved out of the mid–high levels of poverty and inequality, presenting in circa 2006 a mid–high poverty level but a lower (middle) inequality level. At the other extreme, Belarus, the Slovak Republic and Ukraine are the countries in the best situation, followed by several other countries from Eastern Europe, the Middle East and Central Asia. Georgia has moved away from the mid–low levels and achieved a mid–high poverty level.

Figure 10 also highlights the good performance in poverty reduction in countries with different initial levels, but especially among those which had middle or mid–low levels. It points to the good performance of Latin American countries with regards to poverty reduction. It is clear that although these countries managed to decrease income inequality (as shown in Figure 9), inequality remains a major issue in most Latin American countries. In fact, the highest levels of income inequality are still highly concentrated in Latin American countries.

FIGURE 11

**Poverty and Inequality in 2006**

		2000's Poverty				
		65%+	30% - 65%	15% - 30%	5% - 15%	< 5%
Inequality	50%+		Honduras South Africa	Bolivia Colombia Paraguay Peru (-, )		
	15% - 50%	Zambia ( ,+) Kenya (-, )		Ecuador ( ,+) Panama ( ,+)	Brazil (+,+) Dominican Rep	Chile (+,+) Mexico (++, )
	10% - 45%	Madagascar	Philippines ( ,+)	Moldova (+, ) El Salvador ( ,+)	Argentina Costa Rica	Uruguay Russia (+, )
	30% - 40%	Bangladesh India Uganda	China (+, ) Indonesia Pakistan (+, ) Georgia (-, )	Armenia (+,+)	Albania ( , -) Tunisia (+,+) Turkey ( ,+)	Bulgaria ( , -) Malaysia (+,+) Latvia Kazakhstan (++, Jordan (+, ) Poland (+, )
	< 30%	Ethiopia ( ,++)				Belarus Slovak Rep. Ukraine (+,+)

Another important point from the analysis shown in Figure 9 (performance) and Figure 11 (current state) is the worrisome situation of poverty in South Asia and sub-Saharan Africa. The economic process in these countries in the period of time analysed did little or nothing to reduce poverty—poverty incidence still remains higher than 65 per cent in most of the countries. Among these countries, the situation in Kenya is the most worrisome, and to a lesser extent this also applies to Zambia and Madagascar. These countries have high poverty and

high inequality, and the economic process in place has not provided any relief from those problems. Exceptions are China and Pakistan, which managed to change from a high to a mid-high poverty level.

### 3.4 INTRODUCING GDP GROWTH

The comparison of changes in inclusiveness in terms of benefit-sharing with the level of GDP growth in the period yields interesting insights. Rather than mapping where there were successful performances and where challenges demand changes in the growth process, as was done in the previous sub-sections, this section highlights the correlation between changes in inclusiveness and GDP growth, thereby illuminating the contribution of growth to changing poverty and inequality.

Figures 12 and 13 present the changes seen in poverty—vertical axis—and in inequality—horizontal axis—between circa 1996 and circa 2006, plus the countries' average per capita GDP growth from 1995 to 2007—represented by the size of the bubbles. Figure 12 presents the countries where poverty increased—those in the upper quadrants in Figure 9; Figure 13 presents countries where poverty decreased—those in the lower quadrants in Figure 9.

As Figure 13 shows, there are only a few countries where both poverty and inequality increased. These are: Albania, Uruguay, Georgia, Dominican Republic and Madagascar. Although the economic process in these countries was not inclusive, the low starting levels should be taken into consideration when analysing this. This is the case of Albania for both poverty and inequality, and the case of Uruguay with regards to poverty. Uruguay's inequality levels are, however, significantly higher and, the fact that inequality increased, the opposite of what was seen in other Latin American countries, indicates the need for better attention from policymakers aiming for inclusive growth.

The situation in Georgia is one of the most worrisome among this group. It had the highest average economic growth in the period and yet had the most significant increase in poverty. Georgia had the highest poverty levels among Eastern European countries—together with Armenia and Moldova. It has, however, increased poverty—unlike what happened in these two countries—and did so when facing much higher economic growth than the average of the continent—7.8 per cent against 5.6 per cent. Among these countries that increased both poverty and inequality, it is intriguing how the growth rate seen in some of them is much higher than in the rest of the sample. A deeper analysis of the economic growth seen in these countries would be welcomed to elucidate which were the characteristics of the growth process that were responsible for it not translating into higher growth in some of them. The fact that these countries grew much faster and were not able to reduce poverty—and, indeed, increased it, going in the opposite direction from its peers—seems to be evidence against the existence of trickle-down effects.

Among countries in the upper-left quadrant, the poverty increase seen in Peru is worrisome, especially since the country had a higher average GDP growth rate than the other Latin American countries. Thus, Peru has lost an important opportunity to decrease poverty, maybe because the growth process in the country was led by different drivers from those on the rest of the continent. As mentioned above, the increase in poverty in Kenya is also worrisome, as it happened on top of an already high level.

FIGURE 12

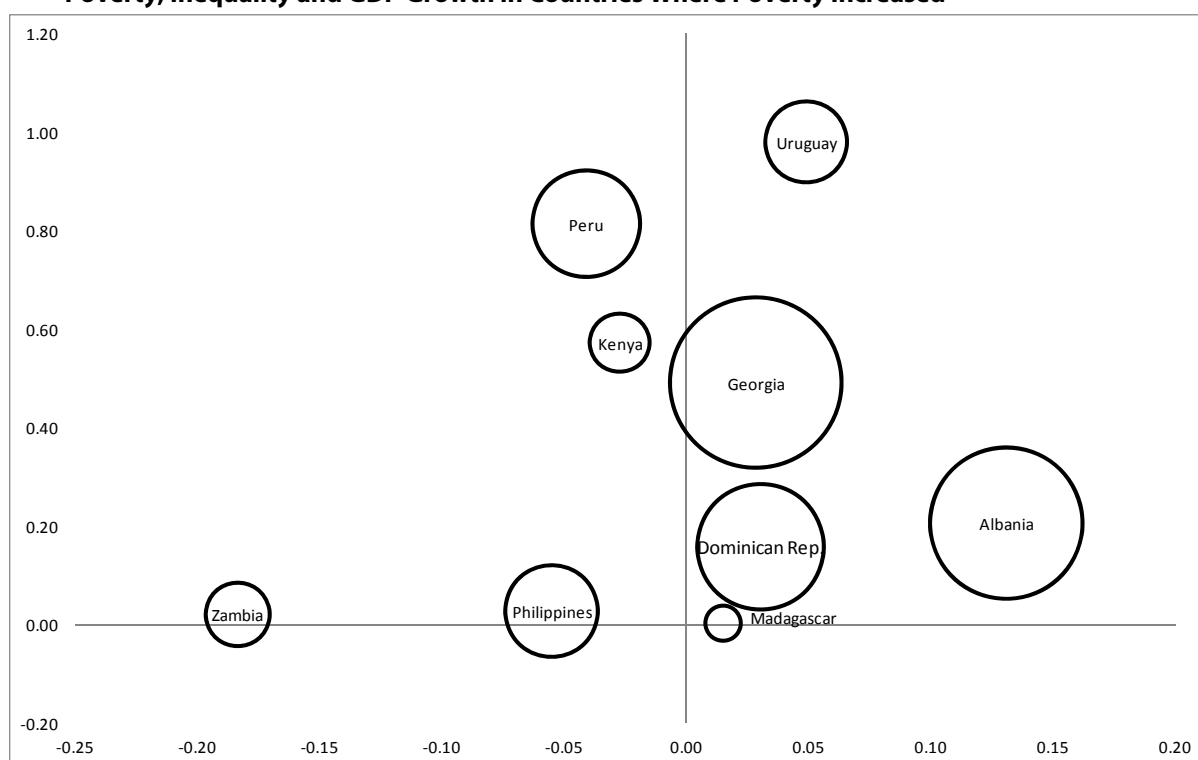
**Poverty, Inequality and GDP Growth in Countries Where Poverty Increased**

Figure 13 presents the countries where poverty decreased; inequality increased in 16 of them and decreased in 17. These two groups of countries faced relatively different GDP growth: countries where poverty and inequality decreased grew, on average, 3.37 per cent, while in those where inequality increased the growth rate was higher, at 3.94 per cent. Even with lower GDP growth, countries where inequality decreased managed to reduce poverty more than those where inequality increased (an average decrease of 45 per cent against an average decrease of 42 per cent). This is again evidence of the importance of inequality reduction in combating poverty.

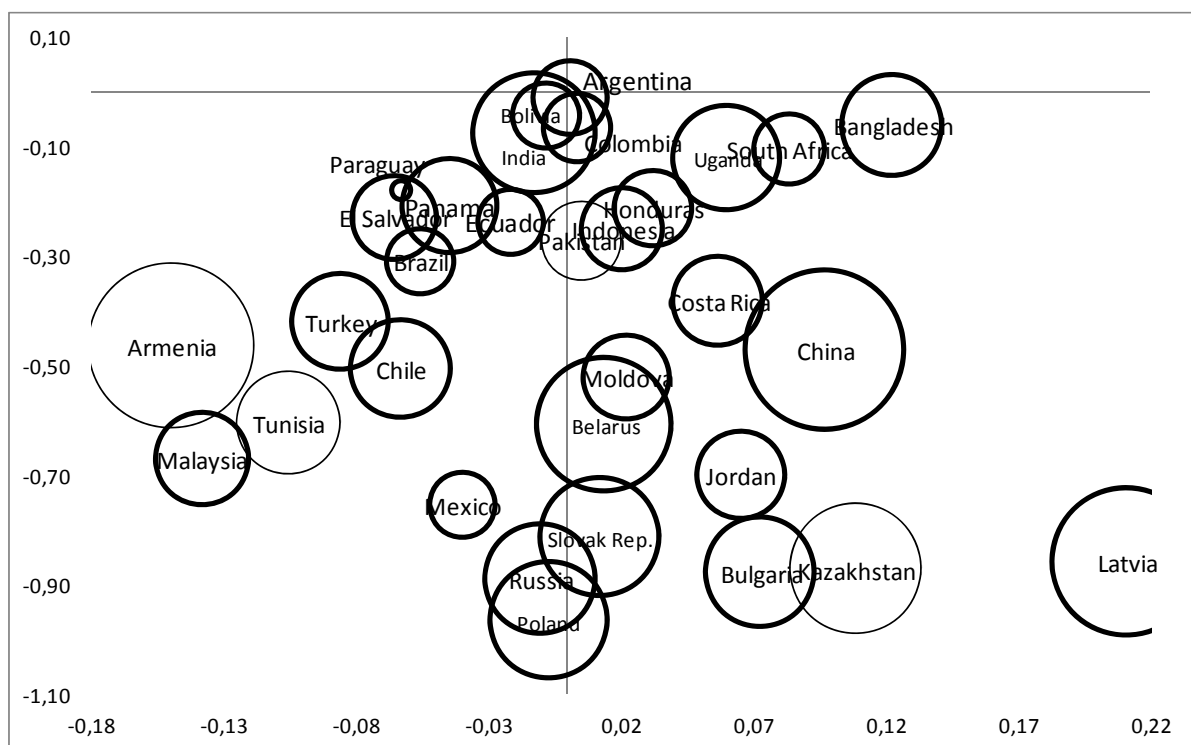
The observed correlation between the decrease in inequality and the decrease in poverty seen in this group of countries that reduced both poverty and inequality points towards positive feedback effects making policies aimed at fighting inequality and poverty mutually complementary—the only countries which do not present the same pattern are Ethiopia, Russia, Poland and Mexico. In the lower-left quadrant there is no observable pattern between GDP growth and inclusiveness: Paraguay performed relatively well with very low economic growth, whereas India performed poorly with much higher than average growth. The lower-right quadrant does not present any correlation between growth and poverty reduction either. In fact, among countries that had higher poverty ratios (more than middle levels), only the changes in poverty seen in China and Kazakhstan could be associated with fast economic growth. The other countries in this group—Moldova, Honduras, Indonesia and Pakistan—have actually achieved very good results in terms of poverty reduction simultaneous with a low average economic growth.<sup>5</sup> Furthermore, independently from the changes in poverty,

countries where inequality increased had higher average economic growth (3.97 per cent) than in countries where inequality decreased (3.08 per cent).

Moreover, the countries which showed the most inclusive processes in terms of benefit-sharing (lower-left quadrant of Figure 9) generally achieved this result with lower than average GDP growth. The economic process seen in these countries somehow yielded better results in terms of inclusiveness than the processes observed in countries which on average grew more (i.e. in terms of GDP). Determining the most effective policy combinations that led to this is beyond the scope of this paper, but as the analysis clearly indicates that how countries grow matters more than how much growth they attain, it invites future research to that effect.

FIGURE 13

### Poverty, Inequality and GDP Growth in Countries Where Poverty Decreased



The data presented in this section do not support a correlation between economic growth and poverty or inequality reduction. Indeed, in terms of benefit-sharing, the inclusiveness of economic growth seems to depend on factors other than the rate of growth of economic output. This reaffirms fundamental flaws in theories assuming trickle-down effects—most notably promulgated by the (post-)Washington Consensus. On the other hand, inequality reduction has been shown to have played an important role in poverty reduction, especially in middle-income economies; these have reduced both poverty and inequality with lower than average economic growth.

## 4 PARTICIPATION

As presented in Section 2, this paper considers the participation dimension as an essential aspect of inclusive growth. Participation extends the concept of inclusive growth beyond the income dimension and hints at its sustainability. It emphasises the goals of involving people in the economic process and of enabling them to continue this process over time. These two goals are important for the sustainability of the process; the former as a social function, legitimising policies and avoiding social unrest, and the latter as a means of building human capital. As already mentioned, the paper explores an employment indicator as a proxy for participation: the employment-to-population ratio (EPR).

In contrast with indicators of productive employment, which try to capture particular characteristics of employment, the EPR has the advantage of focusing on the primary value of being employed. It also includes a dimension of gender participation, as it is the average of male and female participation. Indeed, in many countries with a low EPR, this is due to the low participation of women in the labour force. However, this indicator has the important drawback of being, in some cases, influenced by poverty. This section undertakes a careful analysis of the EPR indicator and presents how it could be integrated into the analysis of inclusive growth.

### 4.1 EMPLOYMENT SITUATION

The EPR<sup>6</sup> is not expected to vary much in time, as it is more of an indicator of a country's fundamentals rather than its circumstances. Indeed, the EPR only varied (positively or negatively) by more than 10 per cent in five of the 43 countries studied: Argentina (16 per cent), Ecuador (13 per cent), Colombia (10.4 per cent); Moldova (-24 per cent), Turkey (-16 per cent) and Armenia (-11 per cent). It is highly likely that these significant changes are linked to either structural changes or specific shocks. The average EPR of the countries analysed in this paper has remained stable, at around 57 per cent, with a range from 35.5 per cent in Jordan to 84.2 per cent in Madagascar (both in circa 2006; see Table 10 in Annex 2 – Data).

In geographical terms, the EPRs of Eastern European countries were classified between low and middle levels, most of them being classified as middle–low in both 1996 and 2006 (see Figure 15 and 16). Sub-Saharan Africa had mostly mid–high or high levels, with the notable exception of South Africa, which has low employment levels. Jordan and Tunisia, the only North African countries in the sample, had low employment levels. South Asia is a heterogeneous group: Bangladesh had mid–high or high levels, India had a middle level, but Pakistan has a low EPR. Latin America has higher EPRs, with the notable exception of Chile and the Dominican Republic (mid–low). In 1996 Argentina (low), Colombia and Panama (mid–low) also had lower employment levels.

FIGURE 14

**Employment-to-Population ratio in 1996 and in 2006**

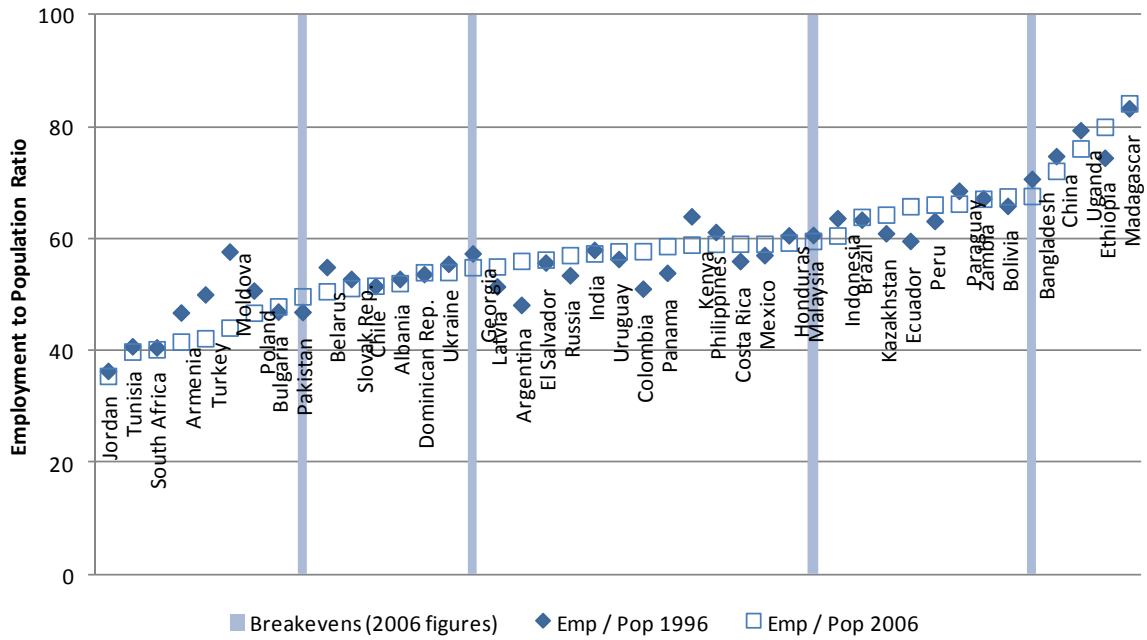


FIGURE 15

**Employment-to-population ratio, 1990s**

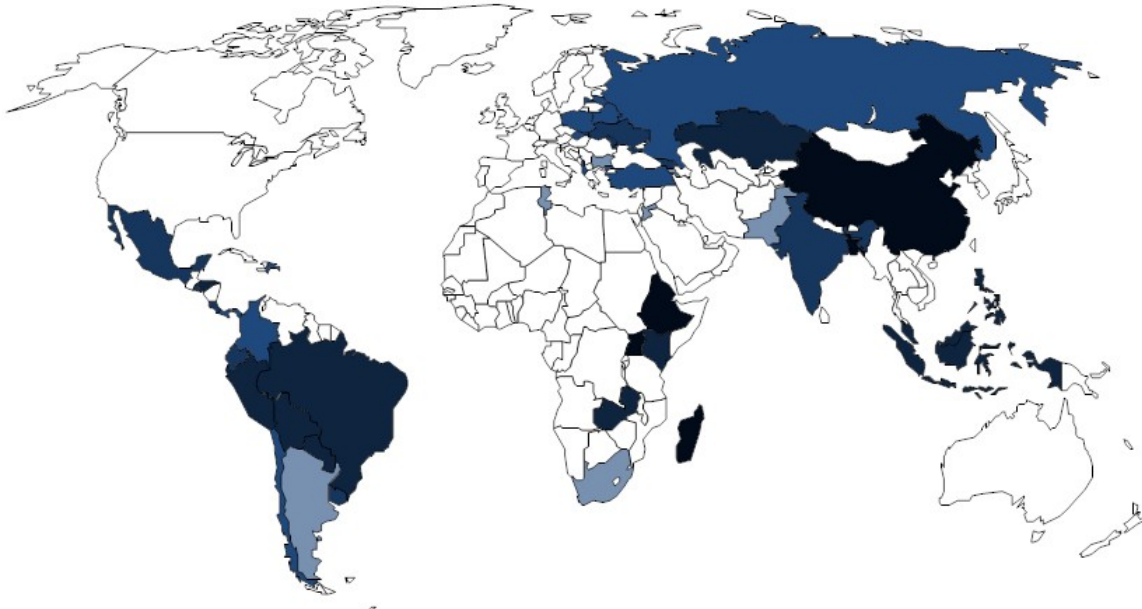
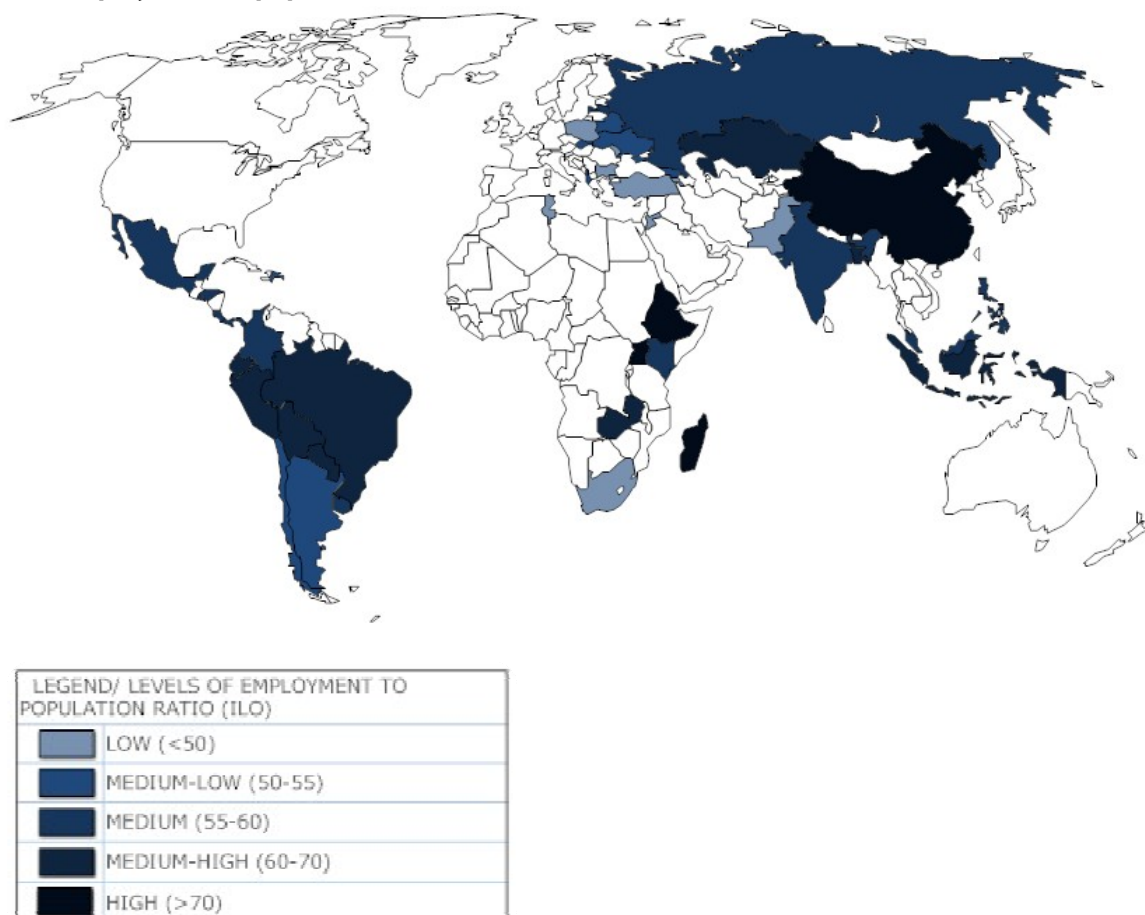




FIGURE 16

**Employment-to-population Ratio, 2000s**

Countries with the lowest EPRs in 1996 were Jordan, South Africa, Tunisia, Armenia, Pakistan, Bulgaria and Argentina. In these countries, the participation of people in the economic process is very limited, since not even half of the working-age population was employed in 1996. Table 1 presents the unemployment rate of these countries.<sup>7</sup>

Two different groups can be identified among these countries. One group has very high unemployment rates: Armenia, South Africa and Pakistan. The other group has lower unemployment rates—Argentina, Bulgaria, Jordan and Tunisia. Although high unemployment rates correlate with a low EPR, a second very important variable here that influences both EPR and unemployment rates is culture, and its effects on participation in the labour force. If women are not included in the labour force, the EPR will be low, but unemployment levels could be low as well. While in the first group the high unemployment rate might be the sole reason behind the low EPR, in the second group some cultural aspect might also be causing the low EPR. It is, however, important to mention that no cultural aspect would completely explain the low EPR, because, although the unemployment rate is lower in the second group, it is still higher than the average of the sample. An exception is Pakistan, which has a low EPR and low unemployment rates. The low employment rate is due to the low EPR of women, which is less than 20 per cent—while male EPR is at standard levels, almost 70 per cent (ILO, 2009).

TABLE 1

**Countries with the Lowest Employment-to-population Ratios in 1996**

	Employment-to- Population Ratio		Unemployment Rate	
	1996	2006	1996	2006
Argentina	48	56	17%	10%
Armenia	47	42	-	29%
Bulgaria	47	48	14%	9%
Jordan	36	35	-	-
Pakistan	47	50	6%	6%
South Africa	41	40	-	25%
Tunisia	41	40	16%	13%

In the two countries—South Africa and Tunisia—where unemployment is high and the labour force is small, the growth process that has been taking place in recent decades has not been inclusive, as the country’s population has been left out of the growth process. South Africa has a mining-based economy with significant unemployment problems; Tunisia is similar, but with oil as the major source of income. Tunisia presents a textbook example of the importance of participation through employment as a key dimension to inclusive growth. The country shows sound GDP growth and low inequality and poverty rates; however, the low EPR (accentuated by a relatively high unemployment rate) characterises the growth process as non-inclusive, creating discontent which eventually surfaced with the social unrest at the dawn of the Arab Spring.

Together with Tunisia, Jordan and South Africa, Armenia is also in a very delicate situation with regards to the participation of the population in the growth process. Beginning from a low EPR, Armenia has faced one of the most significant decreases in EPR, of 5 percentage points, or 11 per cent, from 1996 to 2006. Moreover, the unemployment rate in the country is the highest among the studied countries, at 36 per cent. The country has, indeed, experienced a severe and long-lasting economic crisis and only recovered in the early 2000s. Although GDP growth recovered suddenly and achieved considerably high numbers, this was not sufficient to resolve the country’s persistently high unemployment rate—which has only fallen to the still very high figure of 29 per cent circa 2006. In addition to being a problem in itself, a high unemployment rate can lead to outflow migration—as happened in Armenia—which is another very important issue, as the economy loses its capacity to continue the growth process.

Bulgaria is in a much different situation. First, its EPR is not much lower than other Eastern European countries, and it was one of the few among this group to have increased its EPR. Second, its high unemployment rate in 1996 is the consequence of a time when the country was still recovering from the dissolution of the Soviet Union. This recovery can be easily seen in the decrease in the unemployment rate in 2006.

Argentina’s higher unemployment rate in 1996 also reflects a crisis (1994/5) and was much lower in 2006. This decrease in unemployment was accompanied by an increase in the EPR (unlike what happened in Bulgaria), which might indicate a major change after the two important economic crises faced by Argentina which were accompanied by large, although

temporary, increases in rates of poverty. Despite this increase in the EPR, Argentina still has, together with Chile, an EPR which is much lower than other Latin American countries.

In cases of low participation in the economic process due to cultural aspects, increasing participation of people in the economic process might be more difficult, and the existence of the willingness to do so is questionable. A very different situation is found in Madagascar, Uganda, China, Ethiopia and Bangladesh—all with EPRs of over 70 per cent (see Table 2).

Although very low EPRs should be seen as non-inclusive, very high ratios are also not desirable, as it can be—and often is—a reflection of very high poverty, high working poverty and poor working conditions. The problems related to a high EPR and how this is considered in the analysis of inclusiveness will be discussed later in the section.

TABLE 2

**Countries with the Highest Employment-to-population Ratios in 1996**

	Employment-to-Population Ratio		Poverty Rate	
	1996	2006	1996	2006
Bangladesh	71	68	86%	80%
China	75	72	70%	37%
Ethiopia	74	80	85%	78%
Madagascar	83	84	89%	90%
Uganda	79	76	86%	76%

#### 4.2 CHANGES IN EMPLOYMENT-TO-POPULATION RATIOS

Because of the negative aspects related to a high EPR, not every change towards a higher EPR should be regarded as positive. For instance, China's EPR decreased from 75 per cent to 72 per cent from 1996 to 2006. Even as a decrease in employment, this change should not necessarily be regarded as negative, as it is probably a reflection of the significant decrease in poverty seen in the country—from 70 per cent to 38 per cent—freeing part of the population that could or should be engaged in other activities from the imperative of working to survive.<sup>8</sup> Similarly, the situation in Madagascar, with more than 80 per cent of the population aged 15 years or over being employed, should not be regarded as better than the one in Kenya, where this ratio is 64 per cent, because Madagascar's high EPR potentially hosts a large constituency of working poor people. Therefore, the patterns of change seen in the EPR should be analysed together with poverty levels.

In countries where the EPR decreased, the most important changes (higher than 5 per cent) were seen in Moldova (-24 per cent), Turkey (-16 per cent), Armenia (-11 per cent), Kenya (-8 per cent), Belarus (-8 per cent) and Poland (-8 per cent). It is important to highlight that the EPR in almost all these countries was lower than 60 per cent, which makes this move towards even lower levels most worrisome (see Table 3).

TABLE 3

**Countries with the Largest Decrease in Employment-to-population Ratio**

	Employment-to-Population Ratio			Unemployment Rate	
	1996	2006	% change	1996	2006
Armenia	47	42	-11%	-	29%
Belarus	55	51	-8%	3%	1%
Kenya	64	59	-8%	-	-
Moldova	58	44	-24%	-	-
Poland	51	47	-8%	12%	14%
Turkey	50	42	-16%	7%	10%

Some countries faced a significant increase in EPR. The greatest changes were seen in: Argentina (16 per cent), Colombia (13 per cent), Ecuador (10 per cent) and Panama (9 per cent)—see Table 4. This pattern is not worrisome, as was the case with the decreases in EPR seen above, given that it happened in countries with medium-level EPRs. Moreover, it has not led to extremely high levels of employment and coincides with significant decreases in unemployment rates. The country with the highest EPR in 2006 is Ecuador. The 6 percentage points increase from 1996 to 2006 is not worrisome though, as it occurred at the same time as a large decrease in poverty, from 20 per cent to 16 per cent.

TABLE 4

**Countries with the Largest Increase in Employment-to-population Ratio**

	Employment-to-Population Ratio			Unemployment Rate	
	1996	2006	% change	1996	2006
Argentina	48	56	16%	17%	10%
Colombia	51	58	13%	-	12%
Ecuador	60	66	10%	9%	7%
Panama	54	59	9%	14%	9%

Summing up, there was no discernible pattern of change in employment in the sample—half of the countries having faced an increase, and half having faced a decrease. Most of the increases seen are not worrisome, as they did not take place in countries with a high EPR. On the other hand, several of the countries which showed a decrease in employment had an already very low EPR, and this indicates an alarming situation of a decrease in participation, even when participation levels were already low.

#### 4.3 EMPLOYMENT AS AN INDICATOR OF INCLUSIVENESS

Because neither very low nor very high EPRs are desirable, the use of this indicator as a proxy of participation and inclusiveness is not straightforward—as it is with the poverty and income inequality indicators. This section presents the reasons why this is so and suggests an approach for using the EPR as a proxy for inclusiveness.

### 4.3.1 EPR and poverty

Very high EPRs seem to coincide with a high incidence of poverty and of working poverty. When this is the case, a country's population will be highly involved in the economic process (high participation levels) but without earning the appropriate value for their work—as the remuneration of labour does not suffice to pay for the access to basic goods and services—and probably working under poor conditions. This common occurrence is why very high EPRs are not considered optimal for inclusiveness. Therefore, the use of the EPR in an analysis of inclusiveness should not regard a high EPR as positive and, as explained earlier, should not regard a low EPR as positive either, because it is an indication of a low participation rate. Although indicating a middle, optimal, EPR value is impossible, especially when doing a worldwide cross-national analysis, there are some indications of generally desired target levels.

The ILO (2011) considers that EPRs below 60 per cent might represent a malfunctioning of the labour market—which would lead to the generation of not enough job opportunities and, therefore, not enough possibilities for economic participation. The report also mentions that an EPR which is much higher than 60 is not positive because it is highly correlated with high working poverty. *“Unfortunately, there is no ‘correct’ EPR that can be applied in a blanket sense across economies. There are, however, certain ‘rules’ for determining a ‘good’ and ‘bad’ EPR and moving forward in monitoring and policy response. As a general guide, EPRs that are much higher and lower than 60 per cent are likely to indicate some malfunctioning in the labour market. The specific areas of friction can be determined only with an assessment of other labour market indicators and, even then, only when analysing in depth the socio-economic context of the country”* (ILO, 2011). In fact, the underlying reason is the coincidence of a high EPR and high rates of poverty; the fact that countries with a high EPR also have high number of working poor people is rather a consequence of these countries' high rates of poverty, instead of a correlation.

In the countries analysed in this paper, it can be easily observed that countries with a high EPR also have high rates of poverty and working poverty. This validates the hypothesis that a high EPR should be assessed negatively in this study. Table 5 presents the countries for which an estimation of working poverty in any period since 1997 is available. As it shows, the countries with the highest EPRs—Madagascar, Ethiopia, Uganda and Bangladesh—all have very high rates of poverty (more than 75 per cent of the population) and of working poverty (more than 70 per cent).

However, other countries have a relatively high EPR but without the problems related to poverty, as their rates of poverty and working poverty are lower—such as Bolivia, Peru, Kazakhstan and Brazil. Due to this duality of a high EPR being a reflection of bad conditions in some countries and not in others, an assessment of whether a certain EPR level is good or bad cannot be done by looking at the EPR level only, as the same EPR could represent high participation in one country but very bad conditions in another. With this idea in mind, this paper proposes considering the poverty level as a pre-condition to the analysis of the EPR: only the countries with poverty levels of below 65 per cent would have their EPR assessed as positive or negative for inclusiveness. In this sub-set of the sample, an analysis of the type ‘the higher the EPR, the better’ will be adequate.

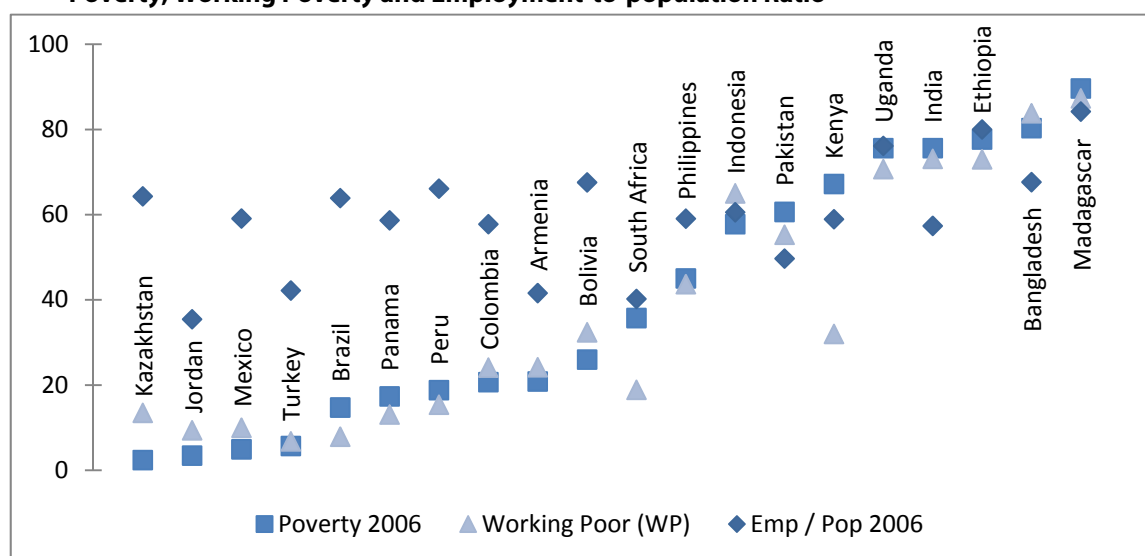
From an analysis of the countries in the sample for which data on working poverty are available, it can be observed that a poverty level which marks the start of very high working poverty numbers is 65 per cent. Countries in which more than 65 per cent of the population were regarded as poor tended to also have very high working poverty and a high EPR—the exceptions are Kenya and, to a lesser extent, India, which had the lowest working poverty and EPR figures in the group. As Figure 17 shows, the group of countries which have an EPR of between 60 per cent and 70 per cent is very heterogeneous: Kazakhstan, Brazil, Peru and Bolivia have similar EPRs to India or Bangladesh, but the high participation in the first group cannot be seen as a consequence of high working poverty, as is the case in the second. This emphasises the need to differentiate between these two groups.

TABLE 5

**Employment-to-population Ratio, Poverty and Working Poverty in Selected Countries**

	Employment-to-Population (%) 2006	Poverty (%) 2006	Working Poverty (WP) (%)	Ref Year (WP)
Jordan	35.5	96.54	9.4	2003
South Africa	40.2	64.26	18.9	2000
Armenia	41.6	79.14	24.2	2004
Turkey	42.2	94.29	6.8	2002
Pakistan	49.7	39.36	55.3	2005
India	57.4	24.38	73.1	2005
Colombia	57.8	79.30	24.1	2003
Panama	58.7	82.66	13.1	1997
Kenya	58.9	32.79	32.0	2005
Philippines	59.1	54.96	43.7	2003
Mexico	59.1	95.06	10.0	2004
Indonesia	60.6	42.24	65.0	2002
Brazil	63.9	85.25	7.9	2007
Kazakhstan	64.3	97.60	13.5	2003
Peru	66.1	81.18	15.4	2003
Bolivia	67.6	74.01	32.4	2002
Bangladesh	67.6	19.68	83.8	2000
Uganda	76.1	24.40	70.7	2005
Ethiopia	80.0	22.37	73.0	2004
Madagascar	84.2	10.39	87.3	2005

FIGURE 17

**Poverty, Working Poverty and Employment-to-population Ratio****4.3.2 EPR and the analysis of inclusiveness**

Thus the EPR will be used as proxy for participation only for countries which have poverty rates lower than 65 per cent; other countries will be given no points in the Inclusiveness Index presented below with regards to participation. Ramos and Rühl (2013) present different methodologies for using the EPR as an indicator of participation and inclusiveness. They suggest several methodologies for creating an inverted u-shape function from the EPR data which results in valuing medium EPRs better than low and high values. While they contribute promising approaches, these have some drawbacks that deserve attention—such as the need to define the optimal EPR. For simplicity, this paper uses the methodology explained above to build an Inclusiveness Index.

**5 INCLUSIVENESS INDEX**

This section presents the different states of inclusiveness of the analysed economies circa 1996 and circa 2006. It is an attempt to combine in one figure the situation of each country with regards to inclusive growth, considering the three indicators presented above—poverty, income inequality and employment—within the two dimensions of inclusive growth: benefit-sharing and participation. Rather than ranking countries, the aim is to pinpoint where concerted efforts to promote inclusiveness are required and where the best practices can be found. The section is divided into an analysis of the inclusiveness of the economies—their levels of inclusiveness in 2006—and an analysis of the inclusiveness of the growth process, which looks at the changes from the inclusiveness levels in 1996 and in 2006 and their relationship to GDP growth.

## 5.1 METHODOLOGY

The Inclusiveness Index (II) is built through a min–max normalisation of data on poverty, inequality and the inverse of the EPR. Constructed on a 0 to 1 scale, the index's lower values represent better performances; that is, the closer to 0 the index, the more inclusive the country. Specifically, the index will be closer to 0, the lower the poverty rate and Gini index, and the higher the EPR—a low index indicates a high level of inclusiveness. Due to the specificities of using the EPR as an indicator of inclusiveness—as discussed above—countries which have a poverty rate of more than 65 per cent are immediately considered non-inclusive and given the highest index possible: 1. The min–max normalisation consists of calculating the ratio between the country's figure minus the lowest figure possible in the two periods, and the difference by the highest and the lowest figures possible, also considering the two periods. This is done for each one of the three series.

The index is the simple average of the three min–max normalisations. Intuitively, it represents the average distance of a country's position regarding poverty, inequality and employment to the best situations within the group of developing countries analysed. The reference group is the set of all the figures of the two periods, which allows comparisons between indices from different times.

## 5.2 THE INCLUSIVENESS OF THE ECONOMIES

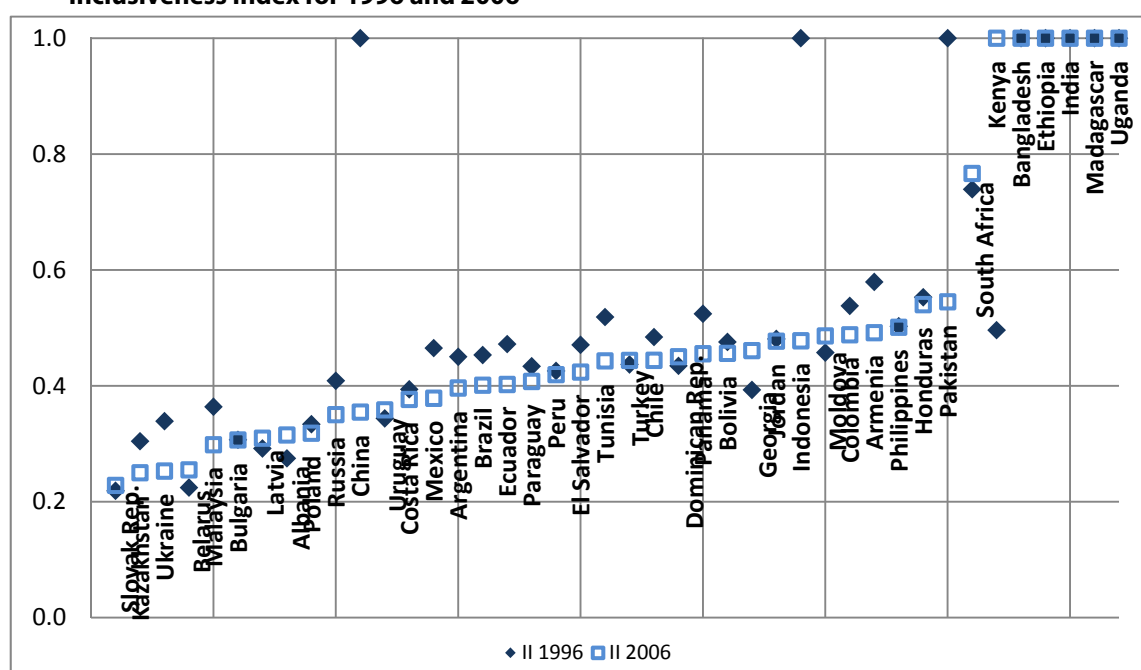
Figure 18 presents the Inclusiveness Index for the two periods, ordered according to their 2006 levels. For the purpose of the analysis, indexes between 0 and 0.2 can be classified as a very high level of inclusiveness; from 0.2 to 0.4 as a high level; from 0.4 to 0.6 as a medium level; and from 0.6 to 0.8 as a low level—theoretically, the highest possible level would be 1, which would be the case if a country, at one time, had the worst poverty, Gini coefficient and EPR of the two periods. The distance between the indices for 1996 and 2006 represents the country's absolute performance in the period.

As explained above, countries with poverty rates which are higher than 65 per cent were given an index of 1. These countries can be seen in the upper-right side of the graph; they are: Bangladesh, Ethiopia, India, Madagascar, Uganda and Zambia. Other countries with very high poverty in 1996 reduced it below the threshold of 65 per cent in 2006 and had their Inclusiveness Index calculated for this year. These are China, Indonesia and Pakistan. Among these countries, the good index that China achieved in 2006—a high level of inclusiveness—is notable. Kenya was the only country to have moved to the level of very high poverty in 2006, when in 1996 the country had a medium index, comparable to those of Jordan, Chile, the Philippines and Tunisia.

In 2006 the overall picture is positive, with most countries presenting a rather significant improvement in their level of inclusiveness. The countries presenting the best levels of inclusiveness in this period were the Slovak Republic, Kazakhstan, Ukraine, Belarus, Malaysia, Bulgaria, Latvia, Albania and Poland. Among these countries, a notable positive evolution was observed in Ukraine, Malaysia and Kazakhstan. Others among this group have had a negative performance: Albania, Belarus, Latvia and the Slovak Republic show a negative evolution. Other countries that also achieved good inclusiveness levels were Russia, China, Uruguay, Costa Rica and Mexico. South Africa presented, in both periods, very negative levels.



FIGURE 18

**Inclusiveness Index for 1996 and 2006**

The situation of inclusiveness in 2006 can also be seen in Table 6, which divides countries according to their categories of inclusiveness and to its three components. As it shows, most countries with good inclusiveness levels still need to provide better participation opportunities. Kazakhstan and, to a lesser extent, Malaysia present the most balanced profiles, with low or mid-low poverty and inequality and at least medium EPRs. China is an outlier: it is the only country with better than medium inclusiveness levels with mid-high poverty, which is compensated for by the high EPR.

The determinants of each country's index are presented in Figure 19.<sup>9</sup> As can be seen, countries with the best inclusiveness levels mostly had very good poverty and good inequality numbers, while employment figures were mostly lower than average. This is especially the case for the Eastern European countries, while Kazakhstan and Malaysia are exceptions, as they presented lower employment but higher inequality. The graph also shows that China's good inclusiveness in 2006 is highly influenced by its very good EPR, while the level of poverty is still higher than other developing countries. The good inclusiveness levels of Latin American countries are due to a different combination, more influenced by high EPRs and relatively low poverty rates. It is clear, however, that in these countries inequality is still a challenge for achieving better inclusiveness levels.

Countries with the worst Inclusiveness Indices are from several continents and have various reasons for their bad results. However, countries of the same continent tend to present similar problems. South Africa has an important challenge of improving both participation and benefit-sharing: it has a very low EPR and very high inequality. Pakistan and Indonesia have more serious poverty issues, while inequality is relatively low. Honduras, Colombia and Bolivia have a lot of space to increase inclusiveness by decreasing inequality. Armenia, Moldova, Turkey and Tunisia should focus on improving participation.

TABLE 6

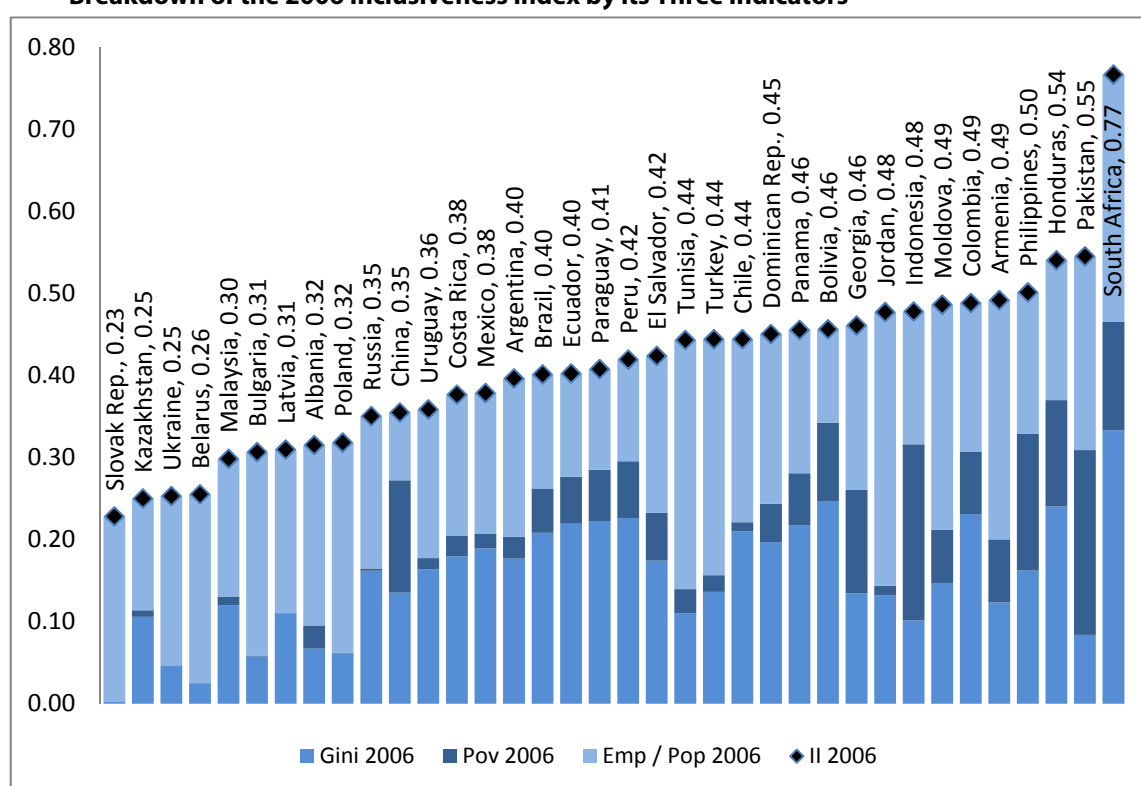
**Categorisation of Inclusiveness Levels, its Components and GDP in 2006**

Inclusiveness Level	Country	Inequality	Poverty	EPR	GDP	
High	Belarus	Low	Low	Med-Low	High	
	Kazakhstan	Med-Low	Low	Med-High	High	
	Malaysia	Med-Low	Low	Med	Med	
	Slovak Rep.	Low	Low	Med-Low	High	
	Ukraine	Low	Low	Med-Low	Med	
Med-High	Albania	Med-Low	Med-Low	Med-Low	High	
	Argentina	Med	Med-Low	Med	Low	
	Bulgaria	Med-Low	Low	Low	High	
	China	Med-Low	Med-High	High	High	
	Costa Rica	Med	Med-Low	Med	Med	
	Latvia	Med-Low	Low	Med	High	
	Mexico	Med-High	Low	Med	Low	
	Poland	Med-Low	Low	Low	High	
	Russia	Med	Low	Med	High	
	Uruguay	Med	Low	Med	Low	
	Medium	Brazil	Med-High	Med-Low	Med-High	Low
Chile		Med-High	Low	Med-Low	Med	
Ecuador		Med-High	Med	Med-High	Low	
El Salvador		Med	Med	Med	Med	
Paraguay		High	Med	Med-High	Low	
Peru		High	Med	Med-High	Med	
Tunisia		Med-Low	Med-Low	Low	Med	
Turkey		Med-Low	Med-Low	Low	Med	
Med-Low		Armenia	Med-Low	Med	Low	High
		Bolivia	High	Med	Med-High	Low
	Colombia	High	Med	Med	Low	
	Dominican Rep.	Med-High	Med-Low	Med-Low	High	
	Georgia	Med-Low	Med-High	Med-Low	High	
	Indonesia	Med-Low	Med-High	Med-High	Med	
	Jordan	Med-Low	Low	Low	Med	
	Moldova	Med	Med	Low	Med	
	Panama	Med-High	Med	Med	Med	
	Low	Honduras	High	Med-High	Med	Med
		Pakistan	Med-Low	Med-High	Low	Med
		Philippines	Med	Med-High	Med	Med
		South Africa	High	Med-High	Low	Low

→

Not Inclusive	Bangladesh	Med–Low	High	Med–High	Med
	Ethiopia	Low	High	High	Med
	India	Med–Low	High	Med	High
	Kenya	Med–High	High	Med	Low
	Madagascar	Med	High	High	Low
	Uganda	Med–Low	High	High	Med
	Zambia	Med–High	High	Med–High	Low

FIGURE 19

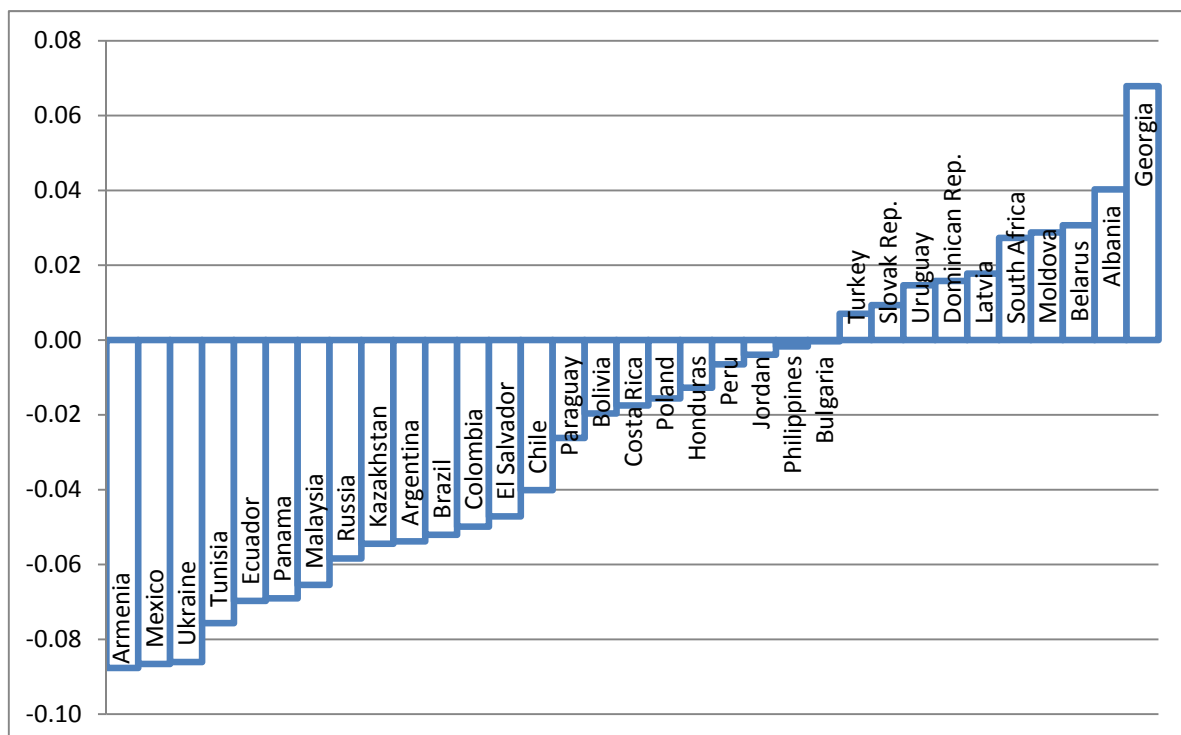
**Breakdown of the 2006 Inclusiveness Index by its Three Indicators****5.3 THE INCLUSIVENESS OF THE PROCESS**

As mentioned above, most countries managed to achieve better inclusiveness levels between the two periods studied. Some countries have, however, presented a negative performance, with their inclusiveness level having worsened—mostly due to increases in inequality or poverty. The absolute performance of countries can be appreciated in the difference of the indices relative to each year—as shown in Figure 20.<sup>10</sup> Armenia, Mexico, Ukraine and, to a lesser extent, Tunisia, Ecuador, Panama and Malaysia presented very good performances. The reasons for these positive results are varied. In the case of Armenia, it was due to important improvements in the three indicators. For Mexico, it is the result of a significant decrease in poverty, from 20 per cent to 5 per cent. In Ukraine, Tunisia and Malaysia there were important reductions in poverty and in inequality. In Ecuador and Panama poverty decreased, and

employment increased. Russia, Kazakhstan, Argentina, Brazil, Colombia, El Salvador and Chile also increased levels of inclusiveness significantly in the period.

On the other hand, some economies achieved worse inclusiveness levels in 2006 than 10 years before. The worst performance was seen in Georgia, the only country where all indicators moved in the opposite direction than desired. In Moldova the considerable decrease in employment cancelled out the poverty reduction achieved. South Africa's poor performance was due to a large increase in inequality—which was already at very high levels—while poverty reduction was very low. The changes seen in Albania and Belarus were smaller—although still negative. Among these countries, the negative performances of South Africa, Moldova and Georgia were the most worrisome, as these countries presented very low inclusiveness levels.

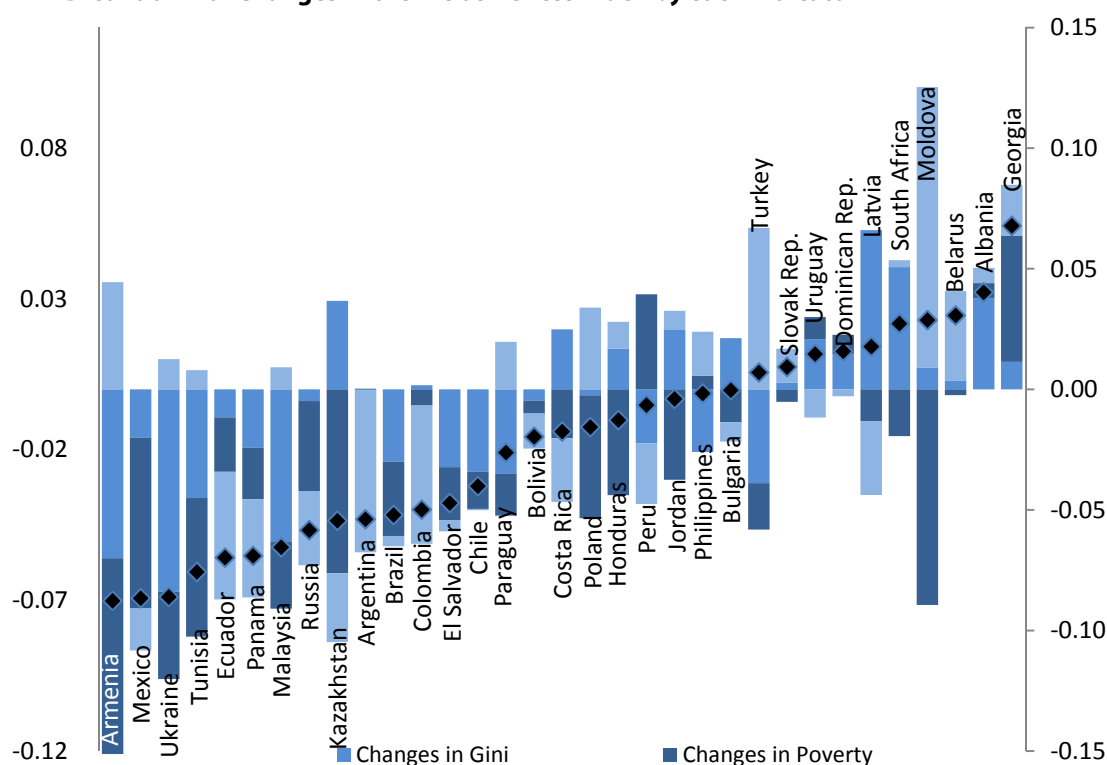
FIGURE 20

**Absolute Performance in Inclusiveness Index**

The changes seen in the Dominican Republic and Turkey were also negative, and came on top of low inclusiveness starting levels. For the Dominican Republic, this was due to relatively stable inequality and employment and a slight increase in poverty. The bad performance of Turkey was due to a decrease in employment, which negated the reductions seen in inequality and in poverty.

Figure 21 presents the size of the change of each indicator contributing to the change in the index from 1996 to 2006. These values are different from the actual change seen due to the methodology applied. With the min–max normalisation, the observed range of each variable will have an impact on the size of the change in that variable. As the range of the Gini coefficient is smaller (min 23; max 64) than that of poverty rates (min 0.3; max 90), a given change in inequality will be more important than the same change in poverty.

FIGURE 21

**Breakdown of Changes in the Inclusiveness Index by each Indicator**

Poverty was the most important factor for the overall improvement of inclusiveness: it decreased in 27 countries, while inequality decreased in 17, and employment increased in 17 countries. The number of countries which had poverty as the main driver of the change was the same as the number of countries where the reduction in inequality was the most important change. Poverty reduction was the most important change towards inclusiveness in Armenia, Brazil, Honduras, Kazakhstan, Mexico, Poland, Russia and Tunisia. Inequality was the most important change in Bulgaria, Chile, El Salvador, Jordan, Malaysia, Paraguay and Ukraine. In Argentina, Bolivia, Colombia, Costa Rica, Ecuador, Panama, Peru and the Philippines the changes in the EPR were more important than changes in other indicators.

Among countries which reduced their inclusiveness levels, an increase in inequality was the most important factor in four countries (Albania, Dominican Republic, Latvia and South Africa), and in four others this change was mostly due to a decrease in employment (Belarus, Moldova, Slovak Republic and Turkey). An increase in poverty was the most important factor only in Georgia and in Uruguay.

### 5.3.1 The direction of change

A different way to evaluate whether a growth process has been inclusive or not is to assess the direction of the changes seen in the indicators. In the analysis carried out above by using an index, a small negative change in one indicator can be compensated for by a major change in another indicator, whereas an analysis of the direction of change values only the processes which lead to a 'positive' change in all the indicators considered.

Close to the concept of relative pro-poor growth, it defines a process as inclusive when it leads to a reduction in both poverty and inequality. To fit the definition of inclusive growth proposed in this paper—with the two conceptual dimensions of benefit-sharing and participation—such an approach would consider a growth process inclusive when it leads to a reduction in poverty and in inequality and to an increase in employment.

The bars in Figure 22 present the direction of change of each of these three indicators, and the inclusiveness levels for the two periods can be found below these bars. The reductions in poverty or in inequality and the increases in employment are considered 'positive' changes. In addition to increases and decreases, a category of 'stability' was also created because the data set was built with approximated figures. This includes changes between -2 and +2 per cent in levels of poverty, inequality or employment.

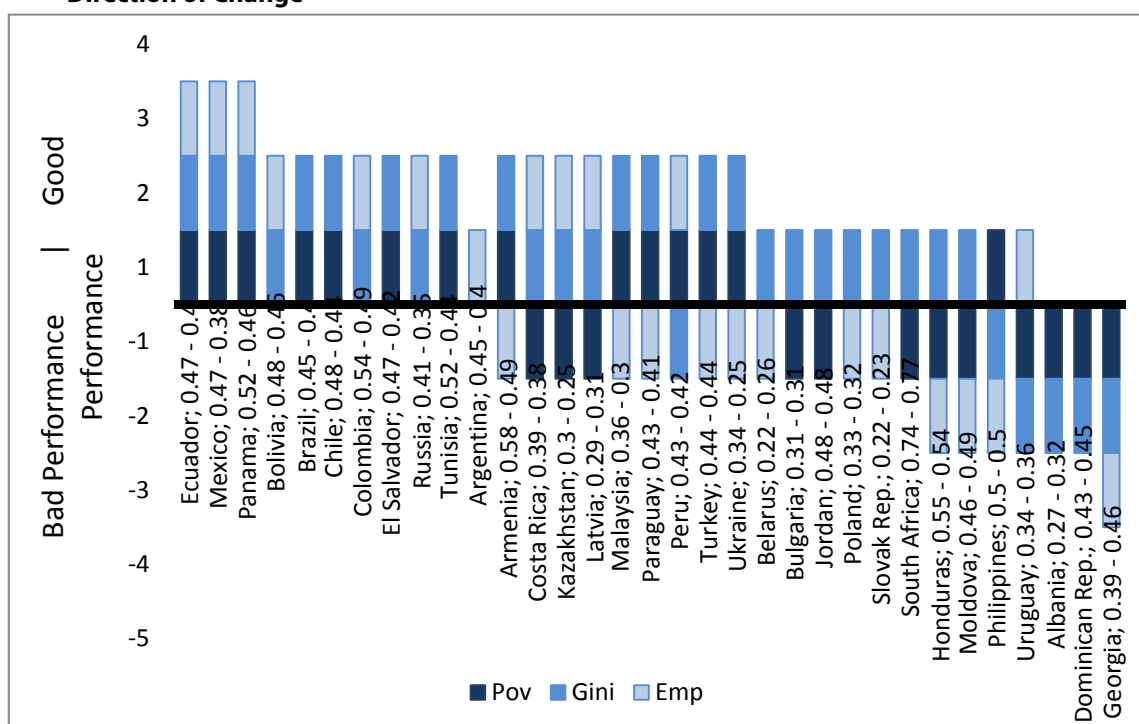
According to this approach, the countries with the best performances are mostly Latin American, together with Russia and Tunisia. Ecuador, Mexico and Panama were the only ones to have the three indicators significantly moving in the desired direction. These are followed by a group which had two indicators moving in the desired direction but one being only stable: Brazil, Chile, El Salvador and Tunisia—which had stable employment—and by Bolivia, Colombia and Russia—which had stable poverty. Argentina follows, with an increase in employment and stable poverty and inequality. All these countries could be said to have had inclusive growth. To differentiate between the first three, which had significant improvements in the three indicators, and the others, Ecuador, Mexico and Panama can be said to have had strong inclusive growth, while the others presented weak inclusive growth.

The following countries managed to reduce poverty and inequality, but their EPR decreased: Armenia, Malaysia, Paraguay, Turkey and Ukraine. These countries achieved inclusive growth only with regards to the benefit-sharing dimension; or, according to the pro-poor literature, they had relative pro-poor growth. Also having had two indicators moving in the desired direction and one in the non-desired direction are: Costa Rica, Kazakhstan, Latvia—which faced increases in poverty—and Peru, where inequality increased. Among these countries, only the changes seen in Latvia had a net negative effect, with the Inclusiveness Index growing from 0.29 to 0.31.

Georgia had all indicators changing in the non-desired direction: increases in poverty and inequality and a decrease in employment. There was no indicator significantly moving in the desired direction in either Dominican Republic or Albania. The process seen in the Dominican Republic, the Philippines and Moldova are especially negative, as most of the indicators changed in a non-desired way, and the worsening of the Inclusiveness Index took place on top of already bad levels.

In this analysis there is one aspect which is common: inequality has only worsened in the countries with very negative performances. With the exception of Peru, where inequality increased but the other indicators improved, in the Philippines, Uruguay, Albania, Dominican Republic and Georgia inequality increased, and other indicators—mostly poverty—have also presented negative performances.

FIGURE 22

**Direction of Change****5.3.2 Inclusiveness of GDP growth**

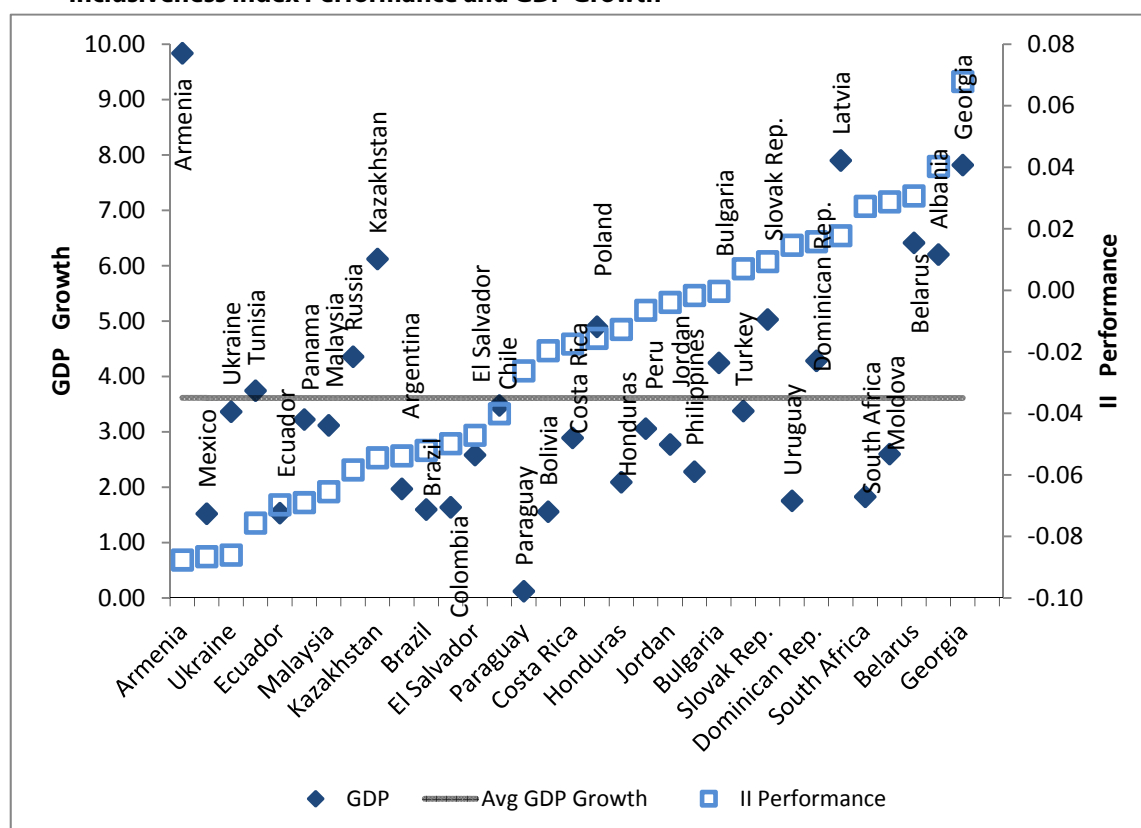
Economic growth is not included in the Inclusiveness Index, as it should be understood as the process that can lead to a different level of inclusiveness rather than inclusiveness itself. This approach is different from other suggestions of quantitative analysis of inclusive growth that have included GDP growth as one of the indicators (for example, McKinley, 2010).

When analysing the participation dimension of inclusive growth, this paper has shown that improvements in poverty and inequality levels have happened rather independently from GDP growth. When including the participation dimension in the analysis, the link between GDP growth and inclusive growth is absent.

Figure 23 presents the absolute Inclusiveness Index performance (as presented in Figure 20) and the countries' average GDP growth between 1995 and 2007. As before, a good performance in terms of inclusiveness results in a reduction in the Inclusiveness Index. If high economic growth were associated with improvements in the EPR, in poverty and in inequality, the graph would show a negative relationship between economic growth (high) and the Inclusiveness Index performance (low). This is the case of Armenia, where, unlike the other countries, this relationship was clear—the country had the best Inclusiveness Index performance and also the highest GDP growth.

Apart from this case, countries' Inclusiveness Index performances cannot be explained by GDP growth. Indeed, only two of the 10 best-performing countries had very high economic growth (Armenia and Kazakhstan), and only two others had higher than average growth (Tunisia and Russia). Mexico and Ecuador presented very good Inclusiveness Index performances, with some of the lowest rates of economic growth among the countries analysed. Paraguay—and, to a lesser extent, also Brazil and Colombia—achieved good results in terms of inclusiveness with very low economic growth.

FIGURE 23

**Inclusiveness Index Performance and GDP Growth**

In the opposite situation are Georgia, Albania, Belarus and Latvia, which had outstanding GDP growth but very bad results in terms of inclusiveness. To a lesser extent, this was also the situation in the Dominican Republic and in the Slovak Republic. Among countries which had very high economic growth, it was accompanied by higher poverty in Georgia and Latvia, by higher inequality in Georgia and Albania, and by lower employment in Georgia and Belarus.

The absence of a link between economic growth and inclusiveness is evidence that growth alone cannot reduce poverty and inequality and increase employment. In addition to the absence of trickle-down effects to reduce poverty, it could be that economic growth is not generating adequate employment or, at least, has not led to an increase in EPR.

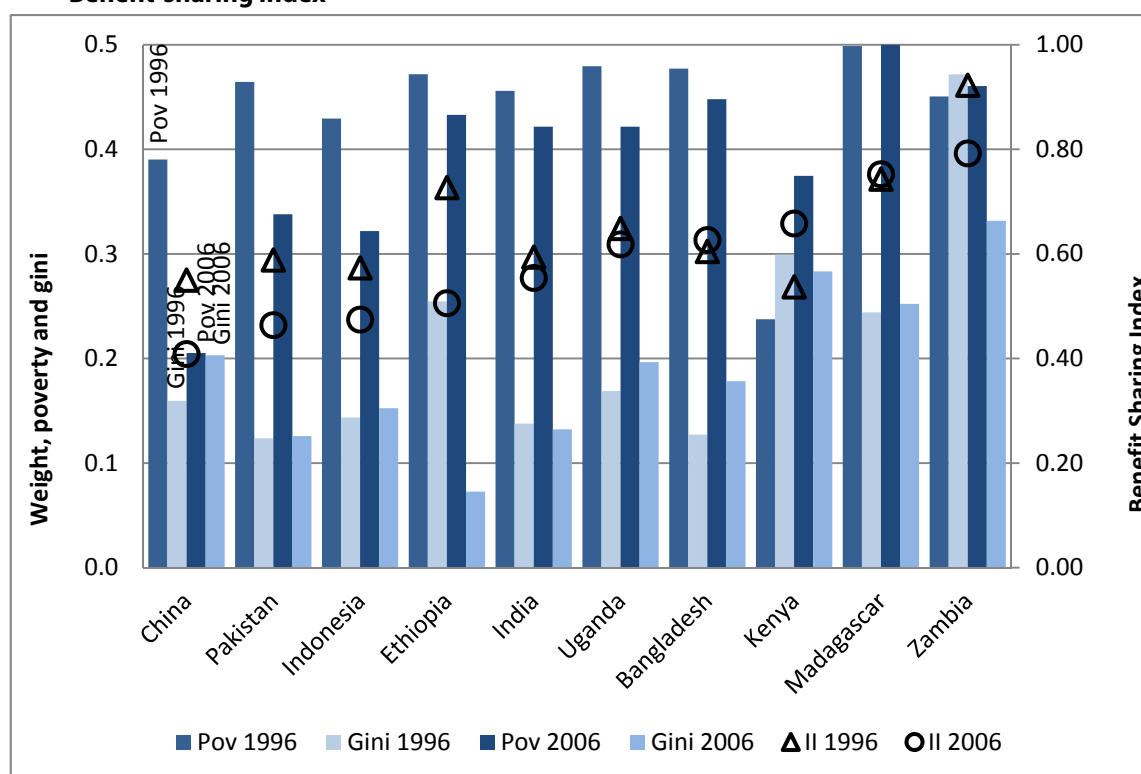
#### 5.4 THE INCLUSIVENESS OF VERY POOR COUNTRIES

The analysis presented above did not include very poor countries due to the bias of their employment figures, which are highly related to working poverty. It is, however, feasible to calculate indices for these countries without using employment figures. This constitutes a new index, one that focuses solely on the benefit-sharing dimension of inclusive growth, which cannot be comparable to the indices presented above. Although it does not constitute a complete analysis of inclusive growth, an analysis of the poorest countries is necessary, as these are the ones which face the greatest challenges.



The methodology for calculating the Benefit-Sharing Index is the same as the one presented above—the simple average of min–max normalisation of the indicators. Figure 24 presents the countries' indices for 1996 and 2006 and the weight of each of the two components. The best index was the one for China in 2006, which was already good in 1996 and profited from the significant decrease in poverty which more than compensated for the increase in inequality. Good indices were also achieved by Pakistan, Indonesia and Ethiopia—Pakistan and Ethiopia due to the lower inequality level, and Indonesia due to the relative low poverty level.

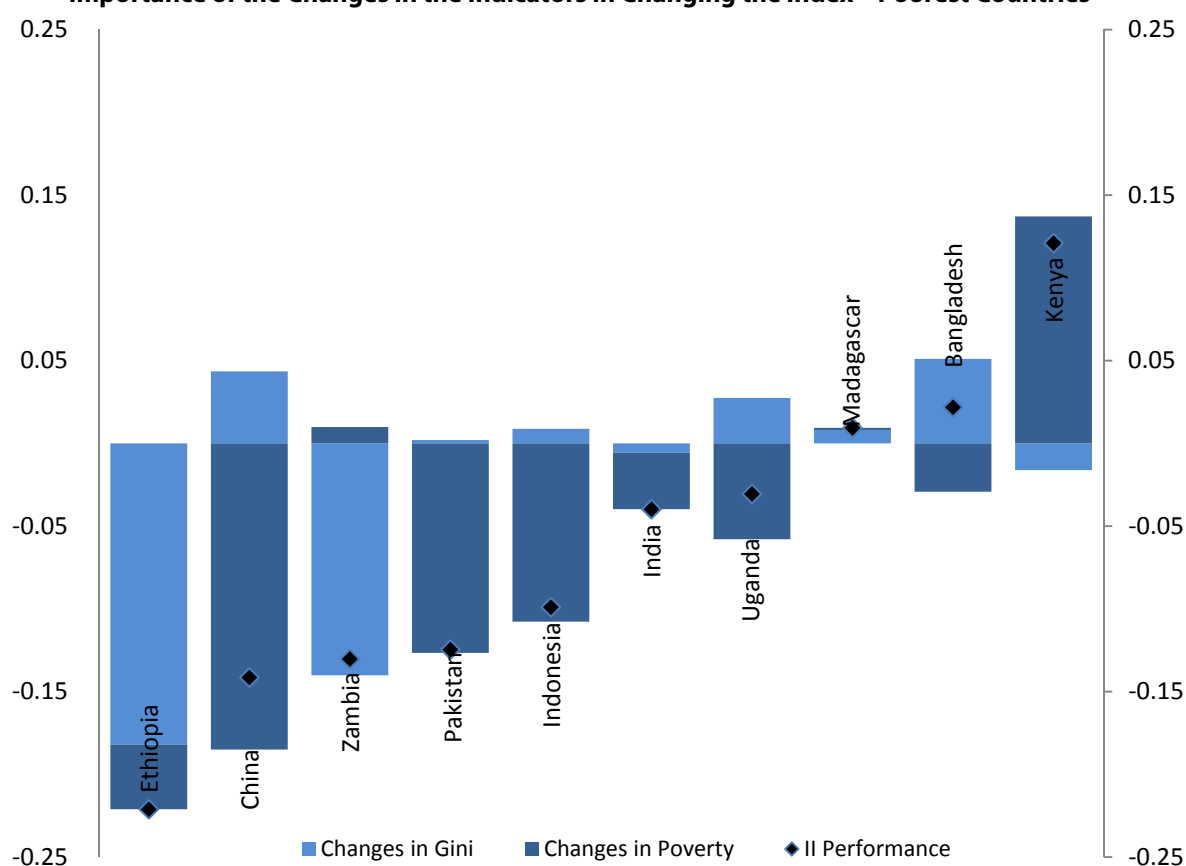
FIGURE 24

**Benefit-sharing Index**

Zambia, Madagascar and Kenya presented the worst indices in 2006, due to very high inequality numbers and also high poverty. While Zambia saw a significant improvement in its index, Madagascar presented stability, and Kenya actually worsened its inclusiveness level due to a large increase in poverty. Together with Madagascar, India, Uganda and Bangladesh also had rather stable indices. These countries face an important challenge to provide better inclusiveness. They are not only the countries with the worst poverty situation, but most of them have also not managed to change this situation over the 10 years analysed.

The analysis of the importance of the change in each indicator in changing the index highlights the importance of poverty reduction. Indeed, this was the most important driver for the changes in the index in most of the countries which improved their inclusiveness. Among these countries, inequality reduction was the most important only for Ethiopia and Zambia. Among countries whose inclusiveness worsened, this change was due to an increase in inequality in Madagascar and in Bangladesh, and due to an increase in poverty in Kenya.

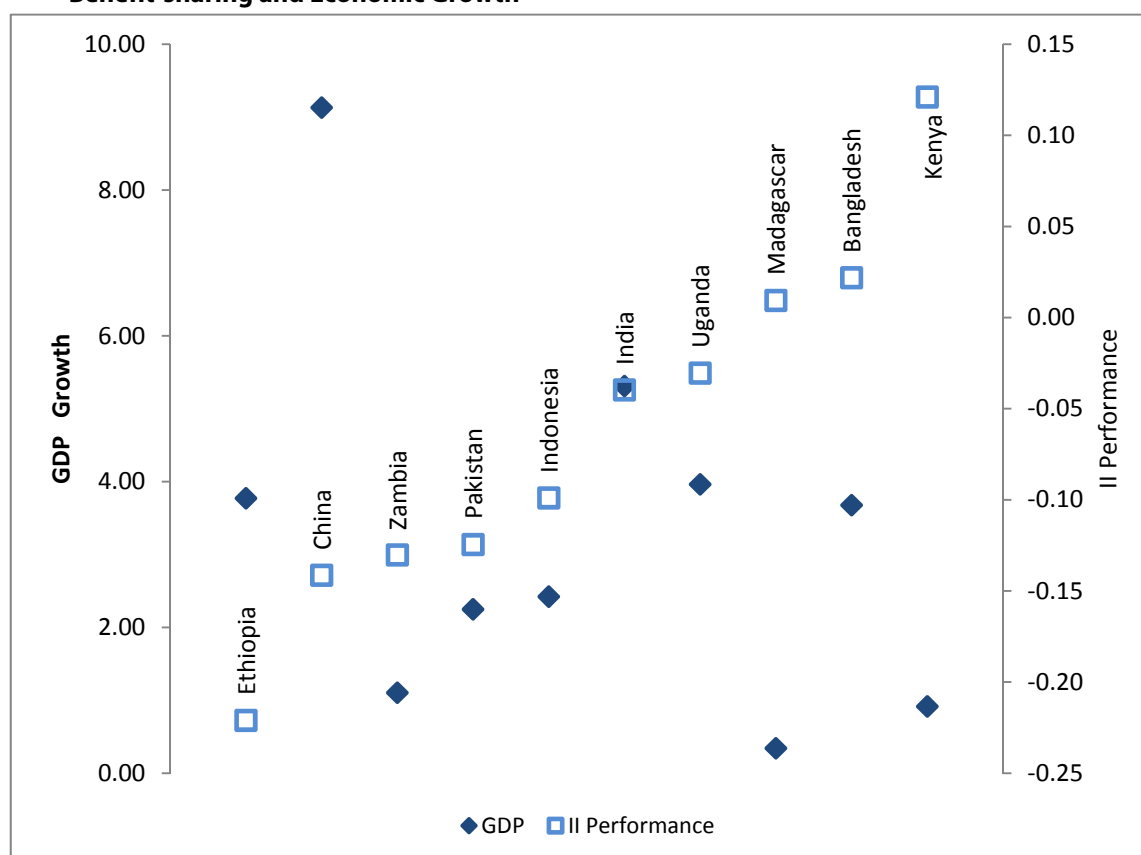
FIGURE 25

**Importance of the Changes in the Indicators in Changing the Index – Poorest Countries**

The economic growth seen in these countries in the 10-year period has been relatively high, averaging 3.61 per cent per year. In addition to China's very high growth rate (9.13 per cent), India (5.31 per cent), Uganda (3.96 per cent), Ethiopia (3.77 per cent) and Bangladesh (3.68 per cent) have also experienced relatively high growth. Figure 26 presents the performance in terms of inclusiveness (the difference between the indices of the two periods presented in Figure 25).

Once more, no relationship between inclusiveness performance and economic growth can be identified. Among the countries which had good performances, Ethiopia and, of course, China had high growth, but Zambia, Pakistan and Indonesia have not. Among the countries with unsatisfactory performances, Madagascar and Kenya presented very low economic growth, but India, Uganda and Bangladesh had rather high rates.

FIGURE 26

**Benefit-sharing and Economic Growth****6 CONCLUSION**

Inclusive growth has been extensively debated for over a decade, a period during which it shaped policies in a number of countries and correspondingly changed the development scene. Although the lack of a consensus on a definition of inclusive growth has not prevented the emergence of policies aimed at generating it, this lack of a definition remains a challenge to designing effective policies and poses a challenge to measuring inclusive growth. The poor availability of data constitutes an additional issue for the development of assessments of inclusive growth within and across countries. But assessing inclusive growth is crucial for both evaluating the effectiveness of policies already in place and improving existing ones or devising new policies. In this light, building on the conceptual debate and the initial attempts to measure inclusive growth, this paper provided an analysis of inclusive growth in 43 developing countries over a 10-year period.

In an attempt to be as comprehensive as possible, the initial attempts at measuring inclusive growth have used several indicators, with the goal of complementing the primary focus on poverty and inequality reduction that characterises the pro-poor debate. In contrast, by adopting a conceptualisation of inclusive growth as involving the dimensions of benefit-sharing and participation, the study focused on three core indicators, two pertaining to the benefit-sharing dimension—poverty and inequality—and one referring to the participation dimension—the EPR. The former are established in the literature as the core indicators of

pro-poor growth as well as of inclusive growth when considered from an outcomes perspective. The latter involves one of the central factors to emerge in the inclusive growth debate, as it gained sophistication and distanced the concept of inclusive growth from that of pro-poor growth. In this respect, the literature has typically given centrality to the concept of productive employment. This concept, however, suffers from both the lack of consensus on its definition and the availability of data to make it feasible to operationalise tentative definitions. For this reason in this paper we have chosen to use the EPR as a proxy for economic participation.

To solve the issue of distortions in the EPR caused by working poverty in particular, the paper identified the countries where this employment indicator could bring a negative bias, devised two analytical groups—a group of countries with high poverty levels which void the usefulness of employment indicators, and a group where the carefully interpreted EPR is included in the analysis—and compared inclusiveness levels only inside each group of similar countries, where this problem is ruled out.

The analysis has shown that most developing countries have managed to increase their levels of inclusiveness. This was mainly due to significant decreases in poverty levels and to the fact that inequality has not increased in most countries. Changes in EPRs have, however, varied more, and the EPR has decreased significantly in several countries where it was already at worrisome low levels.

When comparing the importance of economic growth (measured by GDP growth) achieved during the same period as the results in terms of inclusiveness, it was shown that the economic growth does not explain the results observed. Several countries achieved impressive results with low economic growth, and many of the countries with the worst inclusiveness performances had very high economic growth. This lack of correlation emphasises the need to shift the focus away from the size of the increase in economic output to how the output is generated. Moreover, it highlights the urgency to develop policies to tackle the problems causing low inclusiveness levels.

While this paper has shed some light on the results of the economic process in terms of inclusiveness—and indicated that developing countries have followed very different paths—further research on the policies that led to these different results would be of great interest to advancing the debate on inclusive growth and informing the design of more effective policies. This paper indicates the countries where policies were the most successful and where policies failed to generate higher levels of inclusiveness. This distinction can serve as a guide for such work towards understanding what is behind successes and failures to promote greater inclusiveness.

## ANNEX 1 - METHODOLOGY

### TIMEFRAME

This paper acknowledges and advocates for the long-term perspective of the inclusive growth concept. First, as any policy intervention induces changes via transmission channels such as prices, employment, taxes, access to goods and services, authority and assets, they lead to short-term outputs. These outputs, in turn, lead to intermediate outcomes and final impacts which are normally over the longer term and more difficult to predict or be attributed to a chain of causation. Second, the different positions countries find themselves in within business cycles leads to the preference of looking at a timeframe of approximately *10 years*, so as to mitigate the cyclical constraints influencing policy outcomes and ad hoc policy decision-making.

This paper analyses data from two points in the timeframe 1996 to 2006. Because of a significant lack of data, to 'populate' the sample, we used a standard multiple imputation routine. To anticipate missing values, the simple average circa 1996 and 2006 was calculated; thus we avoided discarding information about the other dataset variables in the analysis.<sup>11</sup>

### DATA SOURCES

#### Poverty – World Bank new database

The poverty data this paper uses are provided by the World Bank's Development Research Group's (WBDRG) global update (released at the end of February 2012).<sup>12</sup> International poverty lines use a sum of money in constant US dollars, converted into a sum of money for the country concerned using purchasing power parity (PPP) conversion factors rather than market exchange rates. This measure has the virtue of allowing comparisons over space and time, but it may be too low (or too high) in the context of a specific country.

The global poverty measures reported bring together national poverty lines, household surveys, census data, national accounts and both national and international price data. Ravallion and Chen (2009) combined the datasets to estimate absolute poverty measures for the developing world. It presents a major overhaul to the World Bank's past estimates of global poverty, incorporating the new and more accurate data.<sup>13</sup> The paper reports on the most extensive revision yet of the past estimates of poverty measures. In light of this great deal of new data and under various assumptions pertaining to the key methodological choices, Ravallion and Chen estimate the global poverty count for 2005 and update all the past estimates back to 1981. Inevitably there are comparability and consistency problems when combining data from such diverse sources.<sup>14</sup> However, the new compilation of national poverty lines is more representative of developing countries, given that the sample size is larger and it corrects the sample biases in the old dataset.

The poverty line this paper considers is the same as the median poverty line for all developing countries, which constitutes **\$2/day**. Over the period as a whole (1981–2008), the numbers of the WBDRG reveal only a small drop in poverty from 2.59 billion people in 1981 to 2.47 billion in 2008. Within this period the number rose and fell, and it fell substantially after 1999, when 2.94 billion people lived below \$2/day (which is close to the starting point of the timeframe considered here). (Another issue to keep in mind is that because of lags in survey data availability, the estimates do not yet reflect the sharp rise in food prices since 2005. For national monitoring purposes, poverty estimates based on national poverty lines should be used.)

One of the main reasons behind this revision was the new data source; the 2005 International Comparison Program (ICP). The 2005 ICP is the most complete and thorough assessment to date of how the cost of living varies across countries. With the global effort put into the 2005 ICP, the poverty lines used in different countries are more aligned concerning PPP, so that two people living in different countries but with the same real standard of living are treated in the same way. The results reveal a higher cost of living in developing countries than past ICP data have indicated; the 'Penn effect' is still evident, but it has been overstated. The new calculations imply that with a newly set poverty line of \$1.25 a day, 25 per cent of the developing world—1.4 billion people—were poor in 2005, which is 400 million more for that year than was implied by the old international poverty line based on national poverty lines for the 1980s and the 1993 ICP. The higher global count is in no small measure the result of correcting the sample bias in the original compilation of national poverty lines used to set the old '\$1-a-day' line (Ravaillon and Chen, 2009).

### INEQUALITY IN CROSS-NATIONAL RESEARCH

The deleterious effects of economic inequality have long been an enduring focus of enquiry in the social sciences. However, research on inequality or research incorporating inequality data has incessantly been hampered by data issues. The special emphasis placed on income inequality in all modern societies relates to the fact that income is the most easily measurable result as well as (one of) the main determinant of the other results. It is not by chance that the first Millennium Development Goal addresses precisely income distribution.

There are two main aspects of the data issues in research on inequality: first, there are a very *limited number of observations available* for cross-country analysis. This issue dilates when focusing on the effects of inequality over two points in time. Second, the data coming from the different observations often involve *issues of questionable comparability* within such analyses. Existing datasets tend to be strong in either comparability or breadth of coverage, and a certain trade-off between the two can be observed.<sup>15</sup>

When looking at inequality data, the World Bank uses the World Income Inequality Database (WIID). This shows the most comprehensive set of income inequality statistics available but at the same time impedes cross-country analysis, because Gini indices from different countries are based on welfare measurements drawn from different types of data source. There is no agreed basis of definition for the construction of income/consumption distribution data. In general, one cannot consider any source to be 'the official source'. Several sources report estimates based on different surveys, income/consumption concepts, population concepts, weighting procedures etc. To enable the broad cross-national research we set out to undertake in this paper, we, therefore, turn to the Standardized World Income Inequality Database (SWIID).

### THE STANDARDIZED WORLD INCOME INEQUALITY DATABASE

The SWIID maximises the comparability of income inequality statistics for the largest possible sample of countries and years and so is better suited than other income inequality datasets. The SWIID employs a transparent procedure to increase the comparability of available cross-national inequality data (Solt, 2009). This paper uses the data from the SWIID 3.1 Version.<sup>16</sup>

In brief, the SWIID approach is to standardise the United Nations University's (UNU-WIDER) World Income Inequality Database (WIID) and data from other sources using a custom missing-data algorithm.

The starting point is the UNU-WIDER WIID V2.0c from May 2008.<sup>17</sup> The data from the Luxembourg Income Study are added, and because of the unparalleled quality and comparability, these observations serve as the baseline to which the WIID data are standardised.

The data were sorted according to their reference unit and income definition. Many of the reference unit codes the WIID contains are essentially equivalent, so the 26 WIID income definitions can be grouped. The data were classified according to the combination of reference unit and income definition, yielding 19 categories, or 21 including the separately taken superior LIS datasets. The average was taken when observations were available from both sources within a category for a particular country and year. This provides a dataset of country-year observations, each of which has data on inequality in one or more of the 21 categories. To fill in missing observations in categories, a ratio  $\rho_{abit}$  is calculated (a and b being the categories).  $\rho_{abit}$  is not constant and varies across countries (i) and years (t), as the relationship between Gini indices with different reference units and income definitions will vary considerably from country to country and over time.<sup>18</sup> The ratio is only calculable when data are already available in both categories, and it serves as valuable data on what missing ratios are likely to be. The factors that affect these ratios only slowly differ over time (cf. footnote), so the best prediction of these ratios will come from calculable ratios from proximate years within the country. For a detailed description of the methods used to further standardise the dataset, see Solt (2009). The entire process generates a series standardised on the LIS household adult equivalent gross income data. The final dataset covers 153 countries, with 3351 country-year observations on net inequality<sup>19</sup> and 3322 country-year observations of gross inequality.

The uncertainty in the SWIID estimates is relatively small in most observations; the standardisation process is not perfect but nevertheless very good (Solt, 2009). The largest standard errors are concentrated in the developing world (especially in the countries of Latin America and the Caribbean and Africa) and in the earlier years of the period covered by the SWIID (80 per cent of the standard errors over five date from 1980 or before). When assessing the SWIID by looking at the correlation with other social indicators such as life expectancy at birth and infant mortality rates, the SWIID proves to be a substantial improvement over the older cross-national datasets (SIDD, WIID) (Solt, 2009).

As mentioned before, for an in-depth analysis of a small number of countries, researchers are advised to seek out the original data sources cited in the WIID as well as other national sources and become familiar with the exact assumptions and definitions they employ. The standardisation process enhances the comparability of countries significantly and is, therefore, preferred in this cross-country analysis, but as is shown in Table 7, the Gini coefficient generated by the SWIID deviates from more accurate country-specific data sources.

TABLE 7

**Gini Coefficient in Brazil 1996–2006**

Brazil	Gini Index 1996	Gini Index 2006	Change 2006/1996
WIID V2.0c	60.55	56.77	-6.24
SWIID V3.1	51.34	48.45	-5.63

The Gini coefficient this paper uses is considered a useful starting point; however, it is inadequate: the Gini coefficient gives a summary for the whole distribution, without providing direct information about the nature of changes within the entire range. Therefore, it should be complemented with supplementary national indicators that better reflect the particular distributional shifts within the population; this, however, conflicts with the cross-national mapping purpose of this paper.<sup>20</sup> The simplicity of the Gini allows cross-national comparison of inequality independent of absolute incomes over time.

## EMPLOYMENT

This paper endorses the monitoring of employment indicators as a crucial dimension of inclusiveness through the participation dimension heralded in the definition of inclusive growth (see above). To compare the employment-generating capacity of economies, we consider the indicator Employment-to-Population Ratio (EPR), 15+, total (percentage).

When comparing the ILO EPR with the EPR provided by the World Bank, no significant differences are displayed. This paper uses the ILO estimates, harmonised to account for differences in national data and scope of coverage, collection and tabulation methodologies, as well as for other country-specific factors such as military service requirements.<sup>21</sup> The ILO uses data on employment for the age coverage +15 estimated with TRENDS (Trends Estimation Model), and data on the population group +15 obtained from EAPEP (Economically Active Population, Estimates and Projections, Labour stat, ILO). The source of the data can be labour force survey or other household survey, population census with data on population and employment.

The EPR shows the proportion of a country's working-age population (part of the population that is considered able to work, mostly defined between a range set of ages such as 15–65, or in this case 15+) that is employed. A high ratio means that a large proportion of a country's population is employed, while a low ratio means that a large share of the population is not involved directly in market-related activities, because they are either unemployed or (more likely) out of the labour force altogether. Over the timeframe considered in this paper, a small number of countries have adjusted their methodology of defining employment indicators, but, although in a limited number of cases it affects the strict comparability of the EPRs, the general trend in the evolution in EPRs does not impede the purpose they serve within the setup of this paper.

We focus on the EPR as a provider of information on the ability of an economy to create employment and its participatory effect on the population. We should keep in mind that the EPR is considered complementary to the indicators of poverty and inequality and the positive evolution in each of these indicators being *conditio sine qua non* towards an inclusive growth process. This method promotes the EPR as an insightful tool giving an indication into this participation dimension of the growth process.

However, EPR does not consider the quality aspects of employment; this would infer covering several indicators reflecting all possible characteristics of the quality of employment to give a more in-depth picture of the working lives of the population. It is one of the main criticisms against the use of the EPR. Without additional indicators it is difficult to interpret whether a high EPR is a positive or negative sign for a country. While a very low ratio represents definitively the negative underutilisation of a country's productive potential, there is more ambiguity in the interpretation of high EPRs. A high ratio could be high for reasons not necessarily positive (e.g. limited education options which lead young people to take up any



work available instead of staying in school). Unfortunately, there is no 'correct' EPR that can be applied in a blanket sense across economies. There are, however, certain 'rules' for determining a 'good' or 'bad' EPR. As a general guide, EPRs that are much higher and lower than 60 per cent are likely to indicate some malfunctioning in the labour market. The specific areas of friction can be determined only with an assessment of other labour market indicators, and, even then, only when analysing in depth the socio-economic country context (ILO, 2011).

Although many critics deem it inadequate to track the progress in employment—as it does not give any indication of working conditions, number of hours worked per person, the size of the informal sector, or can undergo significant changes due to demographic factors (such as a growing share of the working-age population within the total population) or participation rates—we use the EPR because it proves a useful starting point. As the MDG1B indicators show, there is a positive correlation between both EPR and the vulnerable employment rate and EPR and the working poverty rate (the other two employment-based MDG1B indicators) when the EPR rises much higher above the 60 per cent threshold.

### ANALYTICAL GROUPS

The focus of the analysis in this paper is a cross-national comparison of (mostly developing) countries concerning the level of inclusiveness they display, rated using the indicators mentioned above. GDP per capita growth (LCU) is included within this assessment.

The selection of countries was made depending on the availability of data. When data were missing (after the imputation method described in the timeframe section), countries were simply excluded from the selection. The initial ambition of mapping out the entire developing world was impeded due to a considerable lack of data. However, this paper includes and assesses 43 countries listed below.

We simultaneously divide the data sample into two analytical groups based on geographic regions and income level as defined by the World Bank. Economies are divided into income groups according to 2010 gross national income (GNI) per capita, calculated using the World Bank Atlas method. The groups are: low income (\$1005 or less); lower middle income (\$1006–3975); upper middle income (\$3976–12,275); and high income (\$12,276).

Low-income and middle-income economies are commonly referred to as developing economies. The use of the term is convenient and varies according to the source and the purpose. The intention is not to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final stage of development. The classification of income as proposed by the World Bank does not necessarily reflect development status.

## ANNEX 2 – DATA

TABLE 8

## Income Inequality by Group: 1996, 2006 and Performance over Time

Group (1996)	Country	Gini 1996	Gini 2006	p.p.	%	Avg. Gini 1996	Avg. Gini 2006	Avg. p.p.	Avg. %	Count. w/ pos perf
				change	change			change	change	
High	Bolivia	53	53	0	-1%	53	52	(1.8)	-3%	73%
(>50%)	Brazil	51	48	-3	-6%					
	Chile	52	49	-3	-6%					
	Colombia	51	51	0	0%					
	Ecuador	51	50	-1	-2%					
	Honduras	51	52	2	3%					
	Panama	52	50	-2	-4%					
	Paraguay	54	50	-3	-6%					
	Peru	53	51	-2	-4%					
	South Africa	59	64	5	8%					
	Zambia	61	50	-11	-18%					
Med-High	Dominican Rep.	46	47	1	3%	47	45	(1.5)	-3%	80%
(45-50%)	El Salvador	47	44	-3	-7%					
	Kenya	47	46	-1	-3%					
	Mexico	48	46	-2	-4%					
	Philippines	45	43	-3	-6%					
Med	Argentina	45	45	0	0%	43	40	(2.7)	-6%	55%
(40-45%)	Armenia	45	38	-7	-15%					
	Costa Rica	43	45	2	6%					
	Ethiopia	44	29	-15	-33%					
	Madagascar	43	44	1	2%					
	Malaysia	44	38	-6	-14%					
	Moldova	40	41	1	2%					
	Russia	43	43	0	-1%					
	Tunisia	41	37	-4	-11%					
	Turkey	44	40	-4	-9%					
	Uruguay	41	43	2	5%					
Med-Low	Bangladesh	34	38	4	12%	35	36	1.3	4%	25%
(30-40%)	China	36	40	4	10%					
	Georgia	38	40	1	3%					
	India	34	34	0	-1%					
	Indonesia	35	36	1	2%					
	Jordan	37	39	2	7%					
	Kazakhstan	33	36	4	11%					
	Latvia	30	37	6	21%					
	Pakistan	33	33	0	0%					
	Poland	31	31	0	-1%					

	Uganda	37	39	2	6%					
	Ukraine	37	29	-8	-22%					
Low	Albania	28	31	4	13%	26	28	1.6	6%	0%
(<30%)	Belarus	26	26	0	1%					
	Bulgaria	28	30	2	7%					
	Slovak Rep.	23	24	0	1%					

TABLE 9

**Poverty by Group: 1996, 2006 and Performance over Time**

Group (1996)	Country	Pov 1996	Pov 2006	p.p.	%	Avg. Pov 1996	Avg. Pov 2006	Avg. p.p.	Avg. %	Count. w/ pos perf
				change	change			change	change	
High	Bangladesh	86	80	-5	-6%	82	71	(11.3)	-15%	78%
(>65%)	China	70	37	-33	-47%					
	Ethiopia	85	78	-7	-8%					
	India	82	76	-6	-7%					
	Indonesia	77	58	-19	-25%					
	Madagascar	89	90	0	0%					
	Pakistan	83	61	-23	-27%					
	Uganda	86	76	-10	-12%					
	Zambia	81	83	2	2%					
Med-High	Armenia	39	21	-18	-46%	41	37	(4.2)	-12%	67%
(30-65%)	Honduras	44	35	-9	-21%					
	Kenya	43	67	25	57%					
	Moldova	37	18	-19	-52%					
	Philippines	44	45	1	3%					
	South Africa	40	36	-4	-10%					
Med	Bolivia	27	26	-1	-4%	21	16	(5.4)	-27%	91%
(15-30%)	Brazil	21	15	-7	-31%					
	Colombia	22	21	-1	-7%					
	Ecuador	20	16	-5	-24%					
	El Salvador	21	16	-5	-23%					
	Georgia	23	34	11	49%					
	Kazakhstan	19	2	-16	-87%					
	Mexico	20	5	-15	-75%					
	Panama	22	17	-5	-21%					
	Paraguay	21	17	-4	-18%					
	Tunisia	20	8	-12	-60%					
Med-Low	Albania	7	8	1	21%	9	6	(3.4)	-36%	75%
(5-15%)	Argentina	7	7	0	-1%					
	Chile	7	3	-3	-51%					
	Costa Rica	11	7	-4	-38%					

	Dominican Rep.	11	13	2	16%					
	Jordan	12	3	-8	-70%					
	Malaysia	9	3	-6	-67%					
	Peru	10	19	8	81%					
	Poland	11	0	-11	-97%					
	Russia	9	1	-8	-89%					
	Turkey	10	6	-4	-42%					
	Ukraine	8	0	-8	-95%					
Low	Belarus	1	0	-1	-61%	2	1	(1.1)	-44%	80%
(<5%)	Bulgaria	3	0	-3	-88%					
	Latvia	3	0	-3	-86%					
	Slovak Rep.	1	0	-1	-81%					
	Uruguay	2	4	2	98%					

TABLE 10

**Employment by Group: 1996, 2006 and Performance over Time**

Group (1996)	Country	EPR 1996	EPR 2006	p.p.	%	Avg. EPR 1996	Avg. EPR 2006	Avg. p.p.	Avg. %
				change	change			change	change
High	Bangladesh	71	68	-3	-4%	77	76	(0.5)	-1%
(>70%)	China	75	72	-3	-4%				
	Ethiopia	74	80	6	7%				
	Madagascar	83	84	1	1%				
	Uganda	79	76	-3	-4%				
Med-High	Bolivia	66	68	2	3%	64	63	(0.6)	-1%
(60-70%)	Brazil	63	64	1	1%				
	Honduras	61	59	-1	-2%				
	Indonesia	64	61	-3	-5%				
	Kazakhstan	61	64	3	5%				
	Kenya	64	59	-5	-8%				
	Malaysia	61	60	-1	-2%				
	Paraguay	69	66	-2	-3%				
	Peru	63	66	3	5%				
	Philippines	61	59	-2	-3%				
	Zambia	67	67	0	0%				
Med	Costa Rica	56	59	3	6%	57	56	(0.5)	-1%
(55-60%)	Ecuador	60	66	6	10%				
	El Salvador	56	56	1	1%				
	Georgia	57	55	-2	-4%				
	India	58	57	-1	-1%				
	Mexico	57	59	2	4%				

	Moldova	58	44	-14	-24%				
	Ukraine	56	54	-1	-3%				
	Uruguay	56	58	1	2%				
Med-Low (50-55%)	Albania	53	52	-1	-1%	52	52	0.0	0%
	Belarus	55	51	-4	-8%				
	Chile	52	52	0	0%				
	Colombia	51	58	7	13%				
	Dominican Rep.	54	54	0	1%				
	Latvia	51	55	4	7%				
	Panama	54	59	5	9%				
	Poland	51	47	-4	-8%				
	Russia	53	57	4	7%				
	Slovak Rep.	53	51	-2	-3%				
	Turkey	50	42	-8	-16%				
Low (<50%)	Argentina	48	56	8	16%	44	44	0.6	1%
	Armenia	47	42	-5	-11%				
	Bulgaria	47	48	1	2%				
	Jordan	36	35	-1	-2%				
	Pakistan	47	50	3	6%				
	South Africa	41	40	0	-1%				
	Tunisia	41	40	-1	-2%				

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## NOTES

1. For a review of the conceptual debate and of incipient attempts to measure inclusive growth, see Ranieri and Ramos (2013).
2. The absolute definition of pro-poor growth is broadly used in the literature, as in Weeks (2000), White and Anderson (2000), Kakwani and Pernia (2000). For a review of the literature on pro-poor and inclusive growth, see Ranieri and Ramos (2013).
3. We present a full methodology in the Annex of this paper; this sub-section contains the main points only.
4. For China, we used 2004 data in the absence of data for 2005, 2006 or 2007 due to the importance of the developments seen in this country in this debate.
5. The Eastern European countries had very low poverty levels; therefore, their apparently good performance as portrayed in the graph is somewhat overestimated.
6. The working-age population can vary from country to country but is generally considered as ages 15 and older. The ILO provides the details for each country. For more information, please see the methodology in the Annex. The definition of the series used in this section in the World Bank database is: "Employment to population ratio is the proportion of a country's population that is employed. Ages 15 and older are generally considered the working-age population."
7. Unfortunately, there is a lack of data on unemployment for many countries in the analysed period. The paper uses the same methodology for unemployment figures as for the other indicators: it calculates the average rate in a three-year window around the two points, 1996 and 2006.
8. For example, allowing teenagers to pursue higher education or allowing older people to retire.
9. Non-inclusive countries not included.
10. Another option would be to present the relative performance of countries. This approach has, however, presented an important bias in the case of very small numbers.
11. For example, when talking about the poverty number in the 1990s, the arrhythmic average poverty headcount (%) of (Y-1)1995, (Y)1996 and (Y+1)1997 was taken. When data from Y were missing, the arrhythmic average of (Y-1) and (Y+1) was used; when both Y and (Y+1) were missing, (Y-1) was used etc.
12. The update made by the WBDRG draws on 850 household surveys conducted by nearly 130 countries, representing 90 per cent of the developing world's population. It covers 1981 to 2008, mainly because newer data from low-income countries are either scarce or not comparable with previous estimates. The available data on the three key ingredients in international poverty measurement – national poverty lines, representative samples of household consumption expenditures (or incomes) and data on prices – have improved greatly since global poverty monitoring began. Although the new data suggest that the developing world is poorer than previous estimations, the rates of progress against poverty remain fairly similar to past estimates and robust to the various changes in methodology.
13. Because of lags in survey data availability, the estimates do not yet reflect the sharp rise in food prices since 2005.
14. For an in-depth overview of the motivation and methodology of this revision, see Ravallion and Chen (2009).
15. The SWIID dataset used in this paper represents a particular choice in the balance between comparability and coverage: it maximises comparability for the broadest available set of country-year observations.
16. We use the *gini\_net series* which represents post-tax, post-transfer inequality data.
17. The WIID2 consists of a checked and corrected WIID1, a new update of the Deininger & Squire database from the World Bank, new estimates from the Luxembourg Income Study and Transmonee, and other new sources as they have become available. The measure of income inequality employed is the Gini index.
18. Depending on the extent of redistributive policies, details of tax law, patterns of consumption and savings, family structure and other factors.
19. Net inequality is inequality after redistributive mechanisms.
20. For examples on supplementary indicators to measure inequality, see McKinley (2010).
21. Key Indicators of the Labour Market (KILM) (ILO) 7th Edition software. For further information on the methodology used to harmonise estimates, see ILO (2011).



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