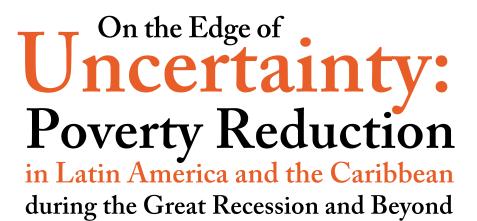
ON THE EDGE OF UNCERTAINTY

Poverty Reduction in Latin America and the Caribbean during the Great Recession and Beyond









DECEMBER 2011



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This brief was produced by the **Poverty, Gender and Equity Unit from the Poverty Reduction and Economic Management Team (LCSPP) in the Latin America and Caribbean Region**. The work was led by Joao Pedro Azevedo, Louise Cord and Carolina Díaz-Bonilla. The team included Bernardo Atuesta Montes, Andrés Castañeda Aguilar, Gabriel Facchini, Amer Hasan and Viviane Sanfelice. The team benefited from comments from Paloma Anos Casero, Francisco H. Ferreira, Margaret Ellen Grosh, Gabriela Inchauste, Julian Messina, Luis Felipe López Calva, Marcela Sanchez-Bender, and from key inputs from Samuel Freije-Rodriguez, Leonardo Gasparini and Leopoldo Tornarolli. The views and interpretations expressed here are the sole responsibility of the authors and should not be attributed to the World Bank, the Board of Executive Directors or the countries which they represent.

The numbers presented in this brief are based on a regional microdata harmonization effort (called SEDLAC) to increase cross-country comparability of selected variables from the official household surveys. Given this objective, often the indicators constructed through this process are different from the official statistics, reported by Governments and National Offices of Statistics. Such differences should not be interpreted in any way as an indicator of methodological superiority since both numbers depart from different, yet equally important and valid, objectives: regional comparability and best possible national representation. The welfare aggregate used in this study are income based.

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Introduction

espite a 2.8 percent decline in Gross Domestic Product (GDP) per capita in purchasing power parity (PPP) termsⁱ, poverty levels in Latin America (LAC) remained basically static during the Great Recession, as the poor were shielded from the economic crisis in some countries and continued to benefit from growth in others.ⁱⁱ In 2010, poverty reduction resumed sharply in Latin America, as household incomes were once again closely linked to economic growth at rates similar to pre-crisis years. Moderate poverty declined by almost 2.5 percentage points to reach 28 percent in 2010, while extreme poverty fell by more than 2 percentage points to reach 14 percent.

As 2011 comes to a close, once again the global economy and Latin America are facing risks of yet another economic slowdown. Using household survey data from 2010 and selected labor market indicators through the third quarter of 2011, this note identifies some basic facts on the impact of the crisis and the recovery on the poor and explores their implications for poverty reduction in the region going forward.

Growth in mean incomes and a more equitable distribution of income each accounted for about half of poverty reduction during the last two years (2009 and 2010). Disaggregating changes in household income reveals that rising labor incomes were the most important factor behind poverty reduction. Nevertheless, during the crisis, the contribution to poverty reduction of non-labor income (public and private transfers) grew. Not surprisingly, households experiencing increases in both labor and non-labor incomes had an extra boost in moving above the poverty line.

Labor market incomes for men were highly vulnerable during the crisis and experienced an overall decline in 2009 that, holding all else equal, contributed to higher poverty levels. In contrast, rising female labor incomes played a larger role in reducing poverty in 2009, accounting for half of the poverty reduction, while households with increases in both male and female labor income accounted for the other half of poverty reduction.

In 2010, growth in male labor incomes once again became the driving force of poverty reduction in Latin America. Of all the demographic groups, households with young children (0-14) were the most vulnerable to the crisis, but also responded fastest to the recovery in 2010. This may reveal these households' dependence on male labor force earnings, which suffered significantly in 2009, but quickly bounced back in 2010.

Projections for 2011 show continued poverty reduction for Latin America, but there is significant uncertainty as to whether this trend will continue into 2012 given concerns of a global slowdown. The experience of 2009 and 2010 suggests that the impact of any future economic crisis will depend upon the extent to which household incomes move in tandem with GDP per capita growth, as well as the ability of poor male and female workers to experience gains in labor income, and to a lesser extent growth in non-labor income.

A new slowdown could undermine poverty reduction more than the 2009 crisis should labor markets soften, especially for the poor, and given that governments face heightened fiscal constraints compared to 2009, making a compensatory expansion of transfers more difficult.

Section I examines trends in poverty reduction in LAC during the growth rebound of 2010, section II identifies factors that contributed to changes in poverty in recent years (2005-2010), while section III draws lessons for policymakers going forward.

I. Poverty reduction in Latin America during the growth rebound of 2010

trong poverty reduction in Latin America resumed with the growth rebound in 2010, as both moderate and extreme poor households benefitted from the recovery, accelerating poverty reduction to rates similar to those witnessed between 2003-2006 (Figure 1). The estimated 5 percent increase in GDP per capita that LAC experienced in 2010 led to declines in moderate and extreme poverty of close to 2.4 and 2.1 percentage points, respectively. Moderate poverty dropped to 28 percent, resulting in 12.6 million less people living in poverty, while extreme poverty reached a record low of 14 percent, with 14.22 million people rising above the food-based subsistence line iii. These 2010 poverty estimates are based on actual data covering nine countries (51 percent of the region's population), with estimates for the remaining countries.

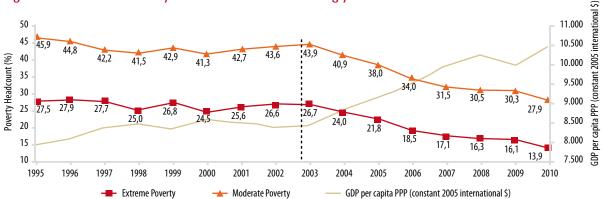


Figure 1: Growth and Poverty Reduction Rebounded Strongly in 2010

Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank) and World Bank Open Data. Note: Estimates of poverty at the regional level are population-weighted averages of country estimates. For years where comparable household surveys for a particular country are unavailable, poverty is estimated using the regional elasticity between growth and poverty. For details, please refer to Annex A. The extreme poverty line used is equivalent to \$ 2.5/day in 2005 PPP, and the moderate poverty line used is equivalent to \$ 4.0/day in 2005 PPP.

The strong connection between growth and poverty reduction that had helped to reduce poverty sharply in the mid-2000s resumed between 2009 and 2010 (Figure 2). Fortunately, this growth-poverty link had weakened during the 2008-2009 crisis years, protecting poor households from the contraction and causing poverty levels to remain the same despite an almost 3 percentage point drop in GDP per capita. As growth reverted in 2010 to pre-crisis levels, its ability to pull households out of poverty (-1.6 elasticity) became comparable to 2003-2007 (-1.9 average elasticity) - the best years of poverty reduction in the region. The 2010 recovery was also accompanied by a reduction in inequality, which accelerated poverty reduction. The Gini dropped in 6 out of 9 countries for which we have 2009-2010 data (Table B.5).

The strength of the economic rebound and its impacts on poverty differed across the region. While economic growth was widely experienced across LAC in 2010, poverty stagnated in Mexico and Central America revealing a weakening between poverty and growth. Growth resumed in all sub-regions, with the strongest performance in the Southern Cone (a 6.7 percent increase in GDP per capita), followed by Mexico and Central America, and then the Andean Region (Figure 3). Growth had a strong impact on poverty levels in the Southern Cone and the Andean regions (poverty declined by 3.7 and 1.9 percentage points, respectively, in 2010). In contrast, in Mexico and Central America poverty decreased by 1.3 percentage points, despite a more than 4 percent increase in GDP per capita – suggesting that poor households did not benefit much from the expansion and/or that vulnerable households continued to drop below the poverty line.

Rural extreme poverty fell significantly more than urban extreme poverty during the 2009 crisis and 2010 rebound (Figure 5). Food price increases buoyed rural households in 2008 and 2010, suggesting many were net sellers of food products or that wages and/or employment increased as an indirect effect of higher food prices. In addition, safety net programs may have helped buffer the impact of both crises on the rural poor relatively more than on the urban poor as these programs are more targeted to rural areas. Meanwhile, the urban extreme poor were disproportionately affected by the food crisis and the deteriorated labor market opportunities resulting from the global financial crisis of 2009, as poverty levels rose slightly during the crisis year. It is surprising that the 2010 recovery had a greater impact on the rural poor than the urban poor, suggesting that the rural economy recovered faster and that the labor market in urban areas remains less dynamic for poorer workers.

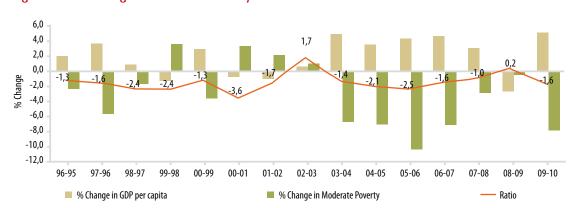
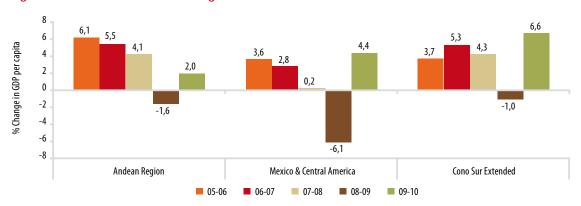


Figure 2: The Strong Link Between Poverty Reduction and Growth Resumed in 2010

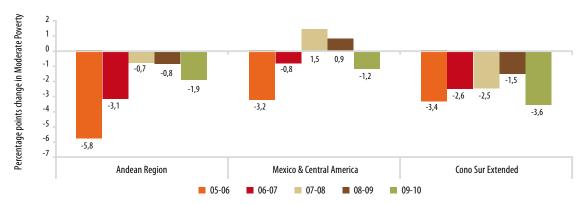
Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Figure 3: Growth Resumes in all Regions of Latin America



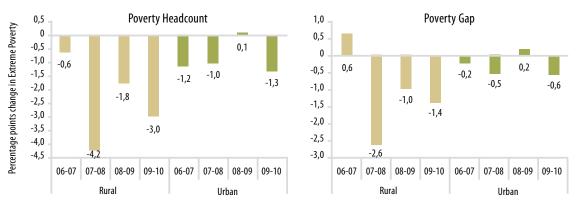
Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Figure 4: Poverty Levels in Central America and Mexico Remain Somewhat Unaffected by the 2010 Economic Rebound



Source: Author's calculations using SEDLAC data (CEDLAS and the World Bank).

Figure 5: Rural households were more resilient to the 2008 and 2009 crises - yet were more closely tied to the 2010 economic recovery



Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank). Note: Change in poverty rate for a subset of LAC countries with annual data available between 2006 and 2010: Dominican Republic, Ecuador, Paraguay, Peru, and Uruguay. Data for Argentina are available annually but do not included rural households — hence it is excluded. Triangulations of these results for Brazil, Honduras and Costa Rica until 2009 are qualitatively similar.

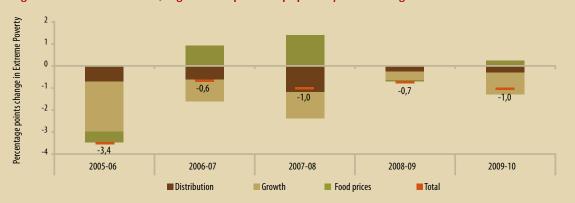
Despite the improvements, and although poverty remains largely an urban phenomenon in LAC in terms of numbers of people, both the severity and intensity of poverty continues to be greater in rural areas; in 2010, the poverty rate and the poverty gap are almost three times as high in rural areas as in urban areas.

While high food prices may have been a relatively positive force in rural areas, they imposed economic hardships on the average poor household and kept the regional extreme poverty rate from experiencing a stronger decrease. At the more aggregate national level, the rise in food prices in 2008, and to a lesser extent in 2010, contributed to higher poverty, while some increases in household income and a better distribution of income (linked to the higher food prices) worked in the opposite direction to reduce poverty (Box 1).

BOX I: Food prices and changes in poverty

Price differentials faced by the poor and non-poor during the 2006-2008 period were partially off-set by a strong redistribution of income. Extending the standard Datt-Ravallion decomposition techniques to include food price changes (through the use of the food CPI) as proposed by Shorrocks and Kolenikov (2001) can shed light on the role played by economic growth, changes in the welfare distribution, or changes in prices differentials on the overall change in poverty observed between 2005-10. In 2005-2006, before the rise in food prices, growth played a substantial role in poverty reduction; yet during the 2006-2007 and 2007-2008 spike in food prices, this role shrank considerably (Figure 6). Had there been no increase in food prices in 2007-2008, all else equal, poverty reduction would have been 1.4 percentage points higher.

Figure 6: In 2007 and 2008, higher food prices kept poverty from falling further than it did



Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank). Note: The nine countries are Argentina, Brazil, Costa Rica, the Dominican Republic, Ecuador, Honduras, Paraguay, Peru, and Uruguay. The 2010 data for Brazil, Costa Rica and Honduras are from 2009 but inflated using national accounts to represent 2010 levels. Shorrocks-Kolenikov (2001) decomposition.

25 22,8 Extreme poverty (%) 20 19,8 18,7 17,7 17,0 19,3 18,4 16.0 15 16,2 15.7 13,9 10 2005 2006 2007 2009 2010 Poverty line constructed using Food CPI Poverty line constructed using overall CPI

Figure 7: Extreme poverty trends using food and overall CPI

Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank). Note: The nine countries are Argentina, Brazil, Costa Rica, the Dominican Republic, Ecuador, Honduras, Paraguay, Peru, and Uruguay. The 2010 data for Brazil, Costa Rica and Honduras are from 2009 but inflated using national accounts to represent 2010 levels.

Given that internationally comparable poverty lines do not fully capture the effect of rising food prices on the poor, the regional and sub-regional trends presented earlier may overstate the welfare gains experienced by poor households since 2007. Traditional international measures of poverty are not sensitive to food price volatility as they rely on the overall CPI rather than the food CPI. A poverty line that is sensitive to food price changes reveals the decoupling of poverty trends when using the overall CPI and the food CPI. For a subset of countries for which we have yearly data, we can assess directly how much food prices mattered for the extreme poor. As these changes in food prices may produce winners and losers there are clear implications for distribution. Not surprisingly, higher food prices, such as those experienced in 2007 and 2008, tend to be a drag on poverty reduction. However, using the overall Consumer Price Index (CPI) to adjust both the poverty line and household income over time does not take into account that the poor spend a larger proportion of their income on food and are therefore more sensitive to fluctuations in food prices. The use of a food-specific CPI to adjust the value of the extreme poverty line for 9 countries in the region suggests that extreme poverty may not have decreased as much as anticipated, with an average reduction of 1.4 percentage points per year between 2005-2010 (Figures 7 and B.1) as opposed to 1.8 percentage points.

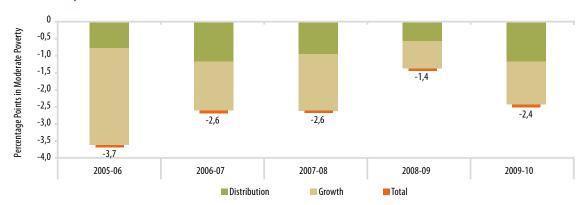
II. Understanding the changes in poverty

o better understand what happened to household incomes during the crisis and recovery, this section unpacks the contribution of labor and non-labor income to poverty reduction. An important finding of this section suggests that labor income has been a critical force for poverty reduction in the region, and that men's labor income was the most important in pushing households out of poverty in 2010, though during the crisis it was female labor income that continued to move households out of poverty. Going forward, countries have to continue to closely monitor the skills required by labor markets, adopt policies that can help less favored households succeed in the labor market, and explore options to expand female labor market participation to help diversify household income.

Growth and inequality were equally important forces behind poverty reduction between 2009 and 2010 (using data from nine countries for which more recent annual data is available), in contrast to the pre-crisis years when the growth effect dominated over a more equal distribution of income (Figure 8).

Labor market income is the most important driver for poverty reduction for both the poor and extreme poor, accounting for around 55 percent on average of the reduction of poverty in recent years, while non-labor income, which includes public and private transfers, accounted for 20 percent (Figure 9). The remaining 25 percent of poverty reduction was accounted for by a joint increase in both labor and non-labor income. During 2009, the contribution of rising labor incomes in reducing poverty shrank, all the while remaining the most important driver of poverty reduction. In contrast, the importance of increases in non-labor income grew, underscoring the importance of accessing expanded public and private transfers for poverty reduction during the crisis compared to other years. However, the most traction for reducing poverty during the crisis occurred in households benefitting from both rising labor and non-labor incomes.

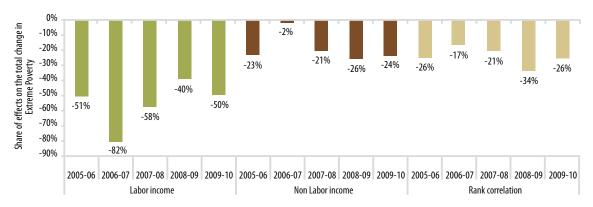
Figure 8: Growth has been the predominant factor contributing to poverty reduction in the recent years



Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Note: The nine countries are Argentina, Brazil, Costa Rica, the Dominican Republic, Ecuador, Honduras, Paraguay, Peru, and Uruguay. The 2010 data for Brazil, Costa Rica and Honduras are from 2009 but inflated using national accounts to represent 2010 levels. Datt-Ravallion (1992) decomposition. **

Figure 9: Labor income is most important for poverty reduction, but moving out of poverty during the 2009 crisis meant relying jointly on both labor and non-labor income Extreme poverty



Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Note:The nine countries are Argentina, Brazil, Costa Rica, the Dominican Republic, Ecuador, Honduras, Paraguay, Peru, and Uruguay. The 2010 data for Brazil, Costa Rica and Honduras are from 2009 but inflated using national accounts to represent 2010 levels. Fournier (2001) decomposition vii

Men's labor income was the most important in pushing households out of poverty in 2010, similar to the pre-crisis years (Figure 10). However, it was also the most vulnerable to the crisis, as falling income from men caused poverty to jump (as well as its depth to increase). Meanwhile, female labor income compensated for the fall in male labor income during the 2009 crisis. Most striking, however, was the dramatic importance of having dual gender earnings increase during the 2009 crisis. Households experiencing increases in earnings for both men and women had the greatest chance of existing poverty.

Households with young children were vulnerable during the crisis, but recovered quickly during the 2010 rebound. While poor households with children experienced the greatest improvements in well-being during periods of growth, they also suffered the greatest negative impacts during economic contractions (compared to households with older children and adults; Figure 11). This may reflect the fact that these households were less likely to have both males and females in the labor force, given the presence of young children.* This suggests

0,30 Share of effects on the total change in 0,20 0,10 0 23% -0,10 -9% -0,20 -16% -18% -18% -0,30 -27% -29% -32% -0,40 -33% -0,50 -51% -0,60 -53% -55% -59% -62% -61% -0,70 2005-06 2006-07 2007-08 2008-09 2009-10 2005-06 2006-07 2007-08 2008-09 2009-10 2005-06 2006-07 2007-08 2008-09 2009-10

Figure 10: Men in the labor market were more vulnerable to the crisis than women

Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Note: The nine countries are Argentina, Brazil, Costa Rica, Ecuador, Honduras, Paraguay, Peru, the Dominican Republic and Uruguay. 2010 data for Brazil, Costa Rica and Honduras are from 2009 but inflated using national accounts to represent 2010 levels. Poverty calculated using only labor income in this exercise. Fournier (2001) decomposition.

Women

Rank correlation

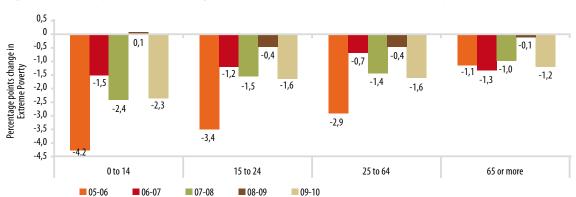


Figure 11: Poverty Fell More Amongst Households With Small Children (0-14 year olds)

Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Note: Data are for subset of countries with data available annually: Argentina, Ecuador, Paraguay, Peru, the Dominican Republic and Uruguay.

Descriptive statistics. Households may be in more than one category if members have corresponding ages.

that households with children remain highly vulnerable to crises and that the depth and coverage of safety nets remains inadequate to protect them. These results could reflect the fact that the amount of the safety nets for these families is too small, that some of these poor households fall through the cracks and are not reached by cash transfers, or that they represent the "new poor" who also remain outside most of the formal safety net programs. In addition, the fact that many households with young children may rely on a single income earner who lost earnings during the crisis could contribute to its negative impact.

During the 2010 rebound, households in extreme poverty saw their labor income fall relative to average households (Figure 12). Between 2005 and 2010, the level of labor income for the extreme poor increased by 3 percent, while the level of non-labor income increased even more (9 percent). These increases were modest compared to average households in LAC, which experienced the largest increases in labor income during this period (24 percent) and smaller average increases in non-labor income (17 percent). The relative decline in la-

1,05 1,00 1,00 0,99 0,99 0,95 0,98 0,97 0,94 0,90 0,92 0,91 0,91 0,91 0,90 0,85 0,84 0,80 2005 2006 2007 2008 2009 2010 Share of Labor Income for Moderate Poor/ Share of Labor Income for Extreme Poor/ Share of Labor for Overall Population Share of Labor for Overall Population

Figure 12: The extreme poor are more reliant on non-labor income than the overall population

Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Note: Data are for a subset of six countries that have anual data available between 2005 and 2010: Argentina, the Dominican Republic, Ecuador, Paraguay, Peru, and Uruguay.

bor income of the extreme poor was particularly sharp in 2010. These trends suggest that the ability of labor markets to lift households out of poverty may be weakening since 2005 and particularly in 2010 and/or that extremely poor households are increasingly dependent on public and private transfers for their income. The increased reliance on private and public transfers for the extreme poor may be difficult to sustain should the global and regional economy dip downward in the coming year. Going forward, countries should monitor labor markets and wages closely, especially for the extreme poor, poor and vulnerable, taking advantage of the relatively high-frequency labor market data to track the impact of economic trends on their wellbeing.

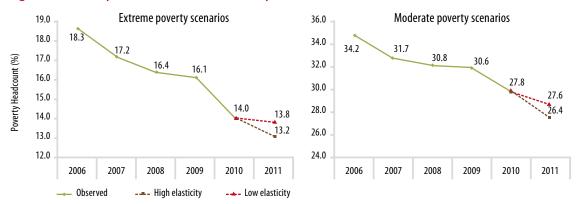
III. Going forward

overty reduction in LAC will likely continue its downward trend in 2011, but at a slower pace, even in the most optimistic scenario^{xi}. Depending on the responsiveness of household welfare to growth, moderate and extreme poverty in Latin America will experience anywhere between a 0.2 and 1.4 percentage point decline (Figure 13). Both these results are much less than the 2.1 and 2.4 percentage point poverty decline the region experienced during the 2010 growth rebound.

Quarterly labor market trends and the latest remittance data confirm that poverty reduction is likely to continue through 2011. The Labor Income Poverty Index (LIPI) measures poverty in terms of individuals who cannot obtain the basic food basket with their labor income, and acts as a leading indicator of poverty^{xii}. Labor markets in several representative LAC economies saw poverty fall, as the LIPI index continued to decline in Brazil, Peru and Ecuador through September 2011, despite concerns over the summer of a double dip recession (Figure 14). Mexico has been the exception as its labor markets continued to face growing difficulties in providing income opportunities for the poor. The share of individuals earning below the poverty line has been rising gradually since the 2009 crisis, despite the economy's relatively strong growth.

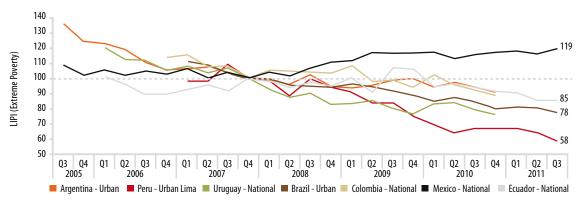
The resumption of growth in remittances in 2011 is another positive trend contributing to poverty reduction in the region. According to the World Bank's Migration and Development Brief, remittance flows to Latin America and the Caribbean region have resumed in 2011 after a sharp decline during the global financial crisis and after remaining almost flat in 2010. Available data until the third quarter of 2011 for Mexico, Colombia, El Salvador, Guatemala, Honduras, Jamaica, and Nicaragua - which together account for three-quarters of remittance flows to the Latin America and Caribbean region - show that remittance inflows grew by nearly 7 percent in the first three-quarters. Remittances to Mexico surged by 11 percent in the third quarter, in part because of the depreciation of the Mexican Peso relative to the US dollar.^{xiii}

Figure 13: Poverty reduction in the future may be slower



Source: Author's calculations using SEDLAC data (CEDLAS and World Bank) and the regional projections for 2011 are computed using a GDP growth projection for the LAC region of 4.2 percent (World Bank, DECPG, December 2011).

Figure 14: Labor market data suggest the extreme poor may face a more substantial economic slow-down



Source: author's calculation using LABLAC Data, 2011 (CEDLAS and the World Bank). Note: 3 months moving average. Base: Q4, 2007 = 100.

As 2011 comes to a close, there are some obvious economic uncertainties and challenges ahead for continued poverty reduction in Latin America. At present, the projected economic slowdown does not loom as severe as the 2009 Great Recession, nonetheless it could have important implications for poverty reduction in Latin America in 2012 and beyond. In terms of poverty levels, the key uncertainties are how labor markets will respond and transmit any crisis to poor households, whether or not governments can increase social spending to compensate for any declines in labor income, what will happen to remittances and other private transfers and finally trends in food prices.

Large fiscal deficits in LAC suggest that it could be difficult for governments to expand social spending should there be another crisis, in contrast to the situation of 2009. On average, government deficits in LAC as a percent of GDP have increased since 2007 (Figure 15).** While countries may have had the space to expand social spending early in the previous crisis – the deficit was less than one percent of GDP in 2008 – the estimated average fiscal deficit for 2011 has more than doubled compared to 2008.

4,0 Government deficit (%GDP) 4 3,0 3 2,2 2 1,1 0,9 1 0 Years 2007 2008 2009 2010 2011 (Projected)

Figure 15: The region's fiscal deficit (% of GDP) has increased

Source: WEO, September 2011.

Food prices remain another factor of uncertainty, although food price volatility has been lower in LAC than in other regions of the world. However, there is general consensus that high and volatile global prices will continue in the medium term due to structural factors, such as a rapidly growing global population and increasing linkages between food and energy prices, particularly with the production of biofuels.**

Finally, the experience of the last crisis and the recovery also suggests that aggregate trends mask some vulnerable countries and groups of households. First, countries hard hit by the last crisis have not fully recovered and may already be affected by the current slowdown, as suggested by the LIPI data for Mexico. In these countries, households were more exposed to the crisis and have faced challenges in benefitting from the recovery and could be particularly vulnerable to further income losses. Several Central American and Caribbean countries would also fall into this category. Second, urban households were particularly hard hit by the last crisis compared to rural households, who tended to have greater access to safety nets. Poverty increased in urban areas across the region in 2009 and the recovery had a smaller impact on the welfare of the poor in urban areas. Looking forward, governments may wish to expand programs to the urban working poor who were vulnerable to losing their livelihoods in the last crisis. Third, in 2009, households with young children was the only demographic group to experience an increase in poverty, which could reflect their dependence on male labor income which suffered important losses with the crisis. While these households also experienced a strong recovery in 2010, it is important to consider how they could be better protected in a future crisis.

Annex

A. Why past poverty estimates may change?

Poverty rates are computed using a measure of welfare, a price index and a poverty line. In LAC, as well as in many other regions, internationally comparable poverty series are computed by comparing household income in purchasing power parity (PPP) terms with the international poverty lines of 2.5 and 4 dollars a day.

Changes in any of the inputs for the poverty estimates of a given year will have implications for the regional estimate. Revisions to population, due to periodic census updates, as well income aggregate estimates, or revisions and updates of CPI series may cause the resulting national, and subsequent regional poverty estimates to change.

Moreover, comparable surveys are seldom available for all countries every year. In order to produce a regional poverty number over time, an estimate of poverty for the missing countries must first be computed. The regional estimates reported in this brief are computed using the observed elasticity between GDP per capita and poverty rates. For this exercise, two periods are recognized in the series: 1995 to 2002 (relatively stagnant) and 2003 to 2010 (important reduction in poverty). As a result, two elasticities are computed — one for each segment (Table A.1). These elasticities are estimated at the Regional level. The periodic changes and revisions in the national account system can also have, and will also have an implication on the estimated elasticities and imputed poverty rates.

The GDP per capita data used to compute the regional estimates come from the World Bank's Open Data, which in turn relies on population estimates from the UN and GDP estimates from the World Bank's World Development Indicators. Consumer price indices come from the ILO and the National Statistical Offices of each country that provides household survey data. The International Comparison Program seeks to provide up-to-date price comparisons through PPP factors.

Table A.1: Elasticity Poverty-Growth									
Elasticity Poverty-Growth									
		1995-2002 2003-2010							
Region	Countries	\$2.5 USD a day	\$4 USD a day	\$2.5 USD a day	\$4 USD a day				
LAC	All 16 countries	-3.04	-2.19	-1.98	-1.63				
Andean Region	Bolivia, Colombia, Ecuador, Peru, Venezuela	-1.19	-0.82	-0.84	-0.71				
Mexico & Central America	Costa Rica, Domincan Republic, El Salvador, Honduras, Mexico, Panama	1.14	0.79	-0.91	-0.66				
Cono Sur Extended	Argentina, Brazil, Chile, Paraguay, Uruguay	-3.33	-2.37	-3.12	-2.49				

Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

B. Tables

Table B.1: Datase	ets used by country									
Sources and relevant information for Socio-Economic Database for Latin America and the Caribbean (SEDLAC)										
Country	Name of survey	Acronym	Last Year	Coverage						
Argentina	Encuesta Permanente de Hogares-Continua	EPH-C	2010	Urban-31 cities						
Bolivia	Encuesta Continua de Hogares- MECOVI	ECH	2008	National						
Brazil	Pesquisa Nacional por Amostra de Domicilios	PNAD	2009	National						
Chile	Encuesta de Caracterización Socioeconómica Nacional	CASEN	2009	National						
Colombia	Gran Encuesta Integrada de Hogares	GEIH	2010	National						
Costa Rica	Encuesta de Hogares de Propósitos Múltiples	ЕНРМ	2009	National						
Dominican Republic	Encuesta Nacional de Fuerza de Trabajo	ENFT	2010	National						
Ecuador	Encuesta de Empleo, Desempleo y Subempleo	ENEMDU	2010	National						
El Salvador	Encuesta de Hogares de Propósitos Múltiples	ЕНРМ	2009	National						
Honduras	Encuesta Permanente de Hogares de Propósitos Múltiples	ЕРНРМ	2009	National						
Mexico	Encuesta Nacional de Ingresos y Gastos de los Hogares	ENIGH	2010	National						
Panama	Encuesta de Hogares	EH	2009	National						
Paraguay	Encuesta Permanente de Hogares	EPH	2010	National						
Peru	Encuesta Nacional de Hogares	ENAHO	2010	National						
Uruguay	Encuesta Continua de Hogares	ECH	2010	National						
Venezuela, RB	Encuesta de Hogares Por Muestreo	ЕНМ	2006	National						
Sources and relevan	nt information for Labor database for LAC (LABLAC)									
Country	Name of survey	Acronym	Last Year	Coverage						
Argentina	Encuesta Permanente de Hogares-Continua	EPH-C	December 2010	Urban-31 cities						
Brazil	Pesquisa Mensual de Emprego	PME	June 2011	Urban-6 cities						
Colombia	Gran Encuesta Integrada de Hogares	GEIH	December 2010	National						
Ecuador	Encuesta de Empleo, Desempleo y Subempleo	ENEMDU	June 2011	National						
Mexico	Encuesta Nacional de Ocupacion y Empleo	ENOE	June 2011	National						
Peru	Encuesta Permanente de Empleo	EPE	June 2011	Lima-Urban						
Uruguay	Encuesta Continua de Hogares	ECH	December 2010	National						

Table B.2: Regional poverty numbers												
Daniss	GDP growth (Extreme poverty rate		Moderate poverty rate		Change Extreme poverty rate		Change Moderate poverty rate			
Region	2008- 2009	2009- 2010	2008	2009	2010	2008	2009	2010	2008- 2009	2009- 2010	2008- 2009	2009- 2010
LAC	-2,8	5,1	16,4	16,1	14,0	30,6	30,4	28,0	-0,3	-2,1	-0,2	-2,4
Andean Region	-1,6	2,0	23,1	22,3	20,5	40,3	39,5	37,6	-0,8	-1,7	-0,8	-1,9
Mexico & Central America	-6,1	4,4	15,3	15,8	14,0	30,4	31,3	30,0	0,5	-1,7	0,9	-1,3
Cono Sur Extended	-1,1	6,7	13,8	13,3	10,7	26,3	24,8	21,1	-0,5	-2,6	-1,5	-3,7

 $Source: Author's \ calculations \ using \ SEDLAC \ data, \ 2011 \ (CEDLAS \ and \ the \ World \ Bank).$

Table B.3: Extreme and Moderate Poverty by country and year												
Country				rty headc y - Actual		Moderate poverty headcount (\$4 USD a day - Actual data)						
	2005	2006	2007	2008	2009	2010	2005	2006	2007	2008	2009	2010
Argentina	13.4	10.3	9.0	8.3	8.1	6.4	26.0	20.6	19.7	17.3	16.4	14.6
Bolivia	35.0	33.5	33.5	31.1			53.9	50.7	50.7	48.1		
Brazil	22.9	19.7	18.2	15.7	15.1		38.4	34.9	31.9	29.2	27.6	
Chile		5.3			4.3			15.8			11.8	
Colombia	31.7			27.2	24.8	22.0	52.8			44.9	42.6	39.5
Costa Rica	12.2	11.6	8.2	7.6	8.1		25.4	25.2	20.1	18.9	19.6	
Dominican Republic	21.1	18.7	17.9	18.4	16.4	16.1	40.5	37.5	36.4	37.9	34.7	35.1
Ecuador	25.6	20.0	20.2	19.6	19.4	15.9	43.6	38.3	38.6	37.1	37.6	33.4
El Salvador	27.1	19.9	18.8	21.1	23.1		45.3	39.8	37.9	41.8	42.7	
Honduras	47.6	42.2	37.0	37.6	36.2		64.3	58.8	56.0	52.8	52.1	
Mexico	15.1	11.9		13.4		12.1	29.7	26.7		28.2		27.9
Panama	22.5	22.2			16.1		37.5	37.1			29.9	
Paraguay	21.9	26.2	21.1	19.2	20.6	18.4	39.9	43.6	39.0	36.3	34.9	32.8
Peru	28.8	25.1	24.4	20.4	20.0	18.3	47.7	43.4	40.7	36.9	35.7	33.6
Uruguay	8.9	7.2	6.1	4.1	3.4	2.8	21.6	20.7	18.7	13.9	12.0	11.0
Venezuela, RB	30.3	19.8					50.3	37.9				

Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Table B.4: GDP per capita, PPP (constant 2005 international \$)										
Country	2005	2006	2007	2008	2009	2010	Growth 2008-09	Growth 2009-10		
Argentina	10,833	11,647	12,545	13,276	13,272	14,363	0.0%	8.2%		
Bolivia	3,772	3,885	3,995	4,172	4,244	4,353	1.7%	2.6%		
Brazil	8,509	8,753	9,196	9,583	9,438	10,056	-1.5%	6.6%		
Chile	12,168	12,598	13,047	13,394	13,045	13,596	-2.6%	4.2%		
Colombia	7,305	7,677	8,085	8,250	8,251	8,488	0.0%	2.9%		
Costa Rica	9,042	9,673	10,261	10,367	10,059	10,259	-3.0%	2.0%		
Dominican Republic	6,380	6,961	7,445	7,728	7,887	8,387	2.1%	6.3%		
Ecuador	6,553	6,829	6,862	7,251	7,172	7,325	-1.1%	2.1%		
El Salvador	5,694	5,909	6,155	6,275	6,022	6,048	-4.0%	0.4%		
Honduras	3,277	3,423	3,567	3,636	3,496	3,516	-3.8%	0.6%		
Mexico	12,191	12,658	12,905	12,932	11,994	12,498	-7.3%	4.2%		
Panama	9,167	9,778	10,779	11,675	11,856	12,541	1.5%	5.8%		
Paraguay	3,901	3,994	4,187	4,352	4,111	4,656	-5.5%	13.3%		
Peru	6,387	6,805	7,333	7,967	7,952	8,558	-0.2%	7.6%		
Uruguay	9,683	10,075	10,783	11,675	11,937	12,903	2.2%	8.1%		
Venezuela, RB	9,924	10,721	11,404	11,756	11,190	10,806	-4.8%	-3.4%		

Source: World Bank, World Development Indicator, 2011 (serie ny.gdp.pcap.pp.kd)

Table B.5: Gini by Country and Year											
C	Gini (from per capita household income)										
Country	2005	2006	2007	2008	2009	2010					
Argentina	0.488	0.475	0.469	0.459	0.449	0.442					
Bolivia	0.576	0.561	0.572	0.556							
Brazil	0.564	0.559	0.548	0.542	0.537						
Chile		0.518			0.519						
Colombia	0.552			0.564	0.560	0.554					
Costa Rica	0.472	0.487	0.489	0.484	0.502						
Dominican Republic	0.499	0.519	0.487	0.490	0.489	0.472					
Ecuador	0.536	0.529	0.539	0.502	0.489	0.489					
El Salvador	0.497	0.461	0.468	0.466	0.481						
Honduras	0.594	0.574	0.560	0.593	0.553						
Mexico	0.509	0.496		0.502		0.473					
Panama	0.538	0.549			0.521	0.519					
Paraguay	0.528	0.545	0.542	0.521	0.507	0.522					
Peru	0.517	0.510	0.517	0.489	0.491	0.481					
Uruguay	0.459	0.472	0.476	0.463	0.463	0.453					
Venezuela, RB	0.476	0.435									

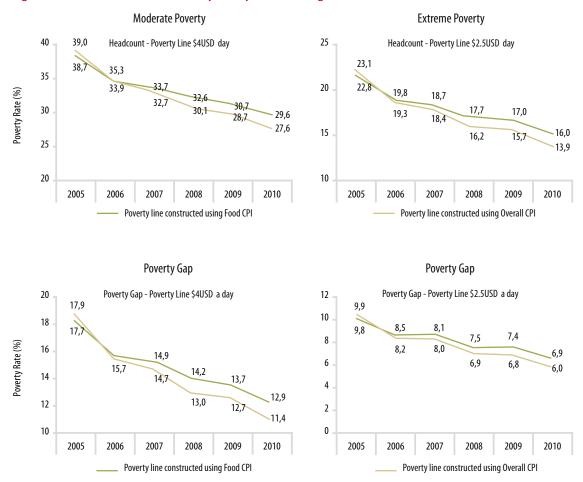
Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Note: Observations with zero income were not considered.

Table B.6: Poverty Projections									
	2010	20	11	Change (2010-2011)					
		Low Elasticity	High Elasticity	Low Elasticity	High Elasticity				
\$2.5 USD a day									
Headcount (%)	14,0	13,8	13,2	-0,2	-0,8				
Number of poor (millons of people)	74,8	74,8	71,6	-0,1	-3,3				
\$4 USD a day									
Headcount (%)	27,8	27,6	26,4	-0,2	-1,4				
Number of poor (millons of people)	149,0	149,7	143,3	0,7	-5,7				

 $Source: Author's \ calculations \ with \ data \ from \ SEDLAC \ (CEDLAS \ and \ the \ World \ Bank) \ using \ population-weighted \ averages.$

Figure B.1: Moderate and extreme poverty trends using the food CPI



Source: Author's calculations using SEDLAC data, 2011 (CEDLAS and the World Bank).

Note: The nine countries are Argentina, Brazil, Costa Rica, the Dominican Republic, Ecuador, Honduras, Paraguay, Peru, and Uruguay. The 2010 data for Brazil, Costa Rica and Honduras are from 2009 but inflated using national accounts to represent 2010 levels.

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End Notes

- i. The PPP conversion factors used in this brief are produced by the 2005 round of the International Comparison Program (ICP). The ICP is a worldwide statistical partnership to collect comparative price data and compile detailed expenditure values of countries' GDP, and to estimate purchasing power parities (PPPs) of the world's economies.
- ii. See: "Did Latin America Learn to Shield its Poor From Economic Shocks," World Bank, October 2010.
- iii. Population estimation for the LAC region of 589,000,000 for 2010 (World Bank, WDI, electronic version, series sp.pop.totl).
- vi. Actual 2010 data are available for: Argentina, Colombia, the Dominican Republic, Ecuador, Mexico, Panama, Paraguay, Peru and Uruguay. Brazil does not release a household survey in 2010 since this is the year of the population census. Estimates for the rest of LAC are based on projections (see Annex A for more details). Harmonized comparable data from the Caribbean is lacking, aside from the Dominican Republic. The estimates of extreme and moderate poverty are based, respectively, on 2.5US\$-a-day and 4US\$-a-day poverty lines in PPP dollars. The extreme poverty line represents the income required to meet basic food needs, while the moderate poverty line covers other expenses for basic subsistence (clothing, shelter, etc.). All poverty estimates presented and discussed in this brief follow the tradition of LAC countries to measure poverty by income and not consumption. As a consequence, any consumption smoothing mechanisms which could partially explain the poverty dynamics in the period, such as access to credit markets and insurance mechanisms, do not apply to the analysis of this indicator.
- v. The poverty trends here presented for Mexico differ from the official trends due to the use of the international \$-a-day poverty methodology so as to assure international comparability. While the official numbers suggest an increase in poverty in the 2008-2010 period, the international poverty numbers suggest a very small decline in poverty for Mexico. This discrepancy has also been noted in other countries, more recently Chile 2006-2009, and is due to the limitation of the international poverty measurement methodologies, which do not include spatial price differentials (within countries) nor adjust the food poverty line exclusively by the food CPI as done in a few countries in the region. LAC is divided into the three regions: the Andean Region, the Cono Sur Region, and the Central America, Mexico, and Dominican Republic Region. The Dominican Republic (DR) is the only country from the Caribbean for which we have data. Thus we do not present results for the Caribbean sub-region and include the DR along with Central America and Mexico.
- vi. Traditional international measures of poverty are not sensitive to food price volatility as they rely on the overall CPI rather than the food CPI. A poverty line that is sensitive to food price changes reveals the decoupling of poverty trends when using the overall CPI and the food CPI. For a subset of countries for which we have yearly data, we can assess directly how much food prices mattered for the extreme poor. As these changes in food prices may produce winners and losers there are clear implications for distribution.
- vii. Datt-Ravallion (1992) decomposition of changes in poverty that are due to changes in income growth or due to changes in the distribution of income.
- viii. As proposed by Fournier, 2001. Non-labor income includes pensions, transfers and other sources of non-labor income. Labor income, include wages from both salaried and self-employed workers from all sectors.
- ix. Fournier (2001) decomposition of poverty by factor components: changes in poverty due to changes in labor income, changes in non-labor income, and changes in the rank correlation between the income sources. Since there is no way to consider a variation of the marginal distribution of a specific income source, keeping constant both the marginal distribution of other sources and the correlation between sources, Fournier (2001) uses an alternative approach that looks at rank correlation. In this approach, one can do simulations that are based on totally non-parametric computations since they only use the rank structure of various income

- sources. In addition, this method presents the major advantage of allowing for a distinction between changes in the correlation between income sources and changes in the marginal distribution of income sources, without using an ad hoc sharing rule for the correlation effect between sources.
- x. World Bank Regional Gender Study, 2011: "Work and Family: Latin America and Caribbean Women in Search of a New Balance."
- xi. The regional projections for 2011 are computed using a GDP growth projection for the LAC region of 4.2 percent (World Bank, DECPG, December 2011) and the response of poverty to that growth using two alternative regional elasticities. In the Best Scenario, poverty is projected using an elasticity of -2 that reflects a high response of the poverty estimate to growth (and corresponds to the average elasticity estimated for the years of best poverty reduction, 2003-2007). On the other hand, in the Worst Scenario poverty is projected using a low elasticity of -0.5 (corresponding to the average elasticity estimated during the 2007-2009 crisis years). The same elasticities are used for both Moderate and Extreme poverty.
- xii. For a more detailed explanation of the LIPI methodology please see World Bank, 2010b. Did Latin America Learn to Shield its Poor from Economic Shocks? Washington, DC: LCSPP Poverty and Labor Brief, No. 1.
- xiii. See World Bank. "Migration and Development Brief, No. 17, December 1, 2011. http://siteresources.world-bank.org/INTPROSPECTS/Resources/334934-1110315015165/MigrationandDevelopmentBrief17.pdf
- xiv. For a deeper analysis of fiscal issues see: World Bank, 2011c. LAC Success Put to the Test. Presentation, September 1, 2011. Washington, DC: Office of the Chief Economist, LAC
- xv. For a deeper analysis of please see World Bank Food Price Watch. November, 2011.



