

POVERTY AND SHARED PROSPERITY IN COLOMBIA

BACKGROUND PAPER FOR POLICY NOTES

Contents

I. Poverty, Inequality and Shared Prosperity	2
Poverty: recent trends.....	2
Profiling the poor: who and where are Colombia's less well-off?	8
Welfare dynamics: socioeconomic mobility of the Poor, Vulnerable and Middle-Class.....	111
Shared Prosperity	133
Inequality	155
II. The drivers behind the changes in poverty and inequality	177
Understanding drivers of poverty reduction	177
Understanding the drivers of inequality changes.....	211
Annex 1: Informality trends	233
Annex 2: Profile of the Poor, Vulnerable and Middle Class	244
Annex 3: Profile of the urban and rural population	245

I. Poverty, Inequality and Shared Prosperity

Poverty: recent trends

Colombia's solid economic growth since early 2000s has led to significant social improvements. Since the turn of the century, extreme poverty in Colombia almost halved, falling from 17.7 percent in 2002 to 7.4 percent in 2017. Similarly, moderate poverty fell from 49.7 percent to 26.9 percent over the same period (Figures 1 and 2). In absolute terms, the number of poor individuals in Colombia declined from about 20 million in 2002 to approximately 12.8 million in 2017.

The downward trend in poverty was halted in 2016, however it went back to its downward trend on 2017. From 2016 to 2017 both moderate poverty and extreme poverty decrease in 1.1 percentage points (p.p.), moderate poverty went from 28 to 26.9 percent, while, extreme poverty was 8.5 percent in 2016 and 7.4 in 2017. Such decrease was primarily driven by a lower incidence of poverty in rural areas, where extreme and moderate poverty rates fell respectively by 2.7 and 2.6 p.p. Similarly, the urban areas saw a reduction of moderate poverty (from 24.9 to 24.2 percent), while extreme poverty rate has remained virtually flat since 2014, at around 5 percent.

Figure 1: Extreme Poverty

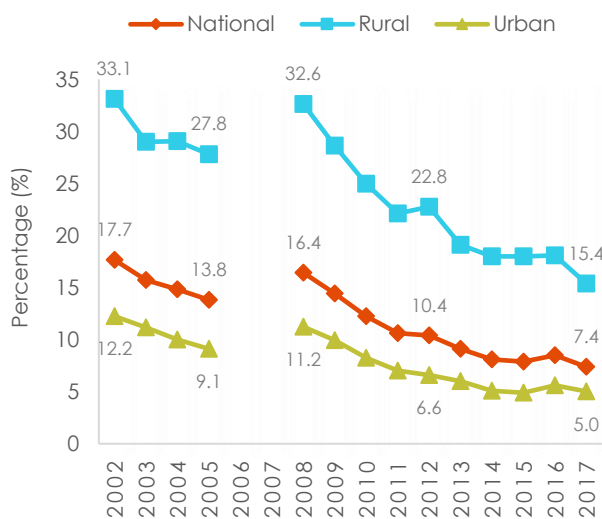
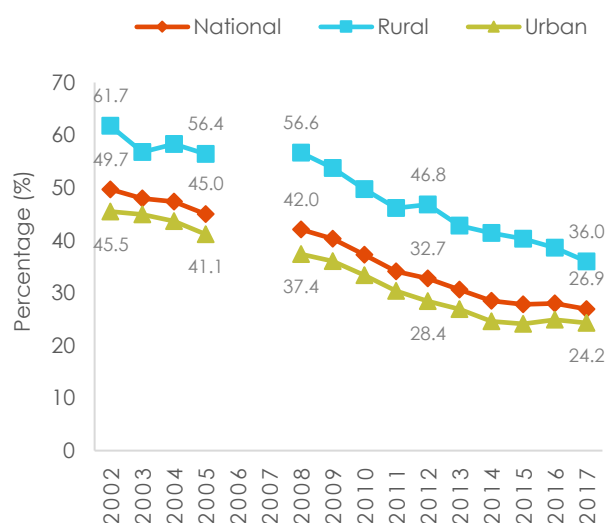


Figure 2: Moderate Poverty

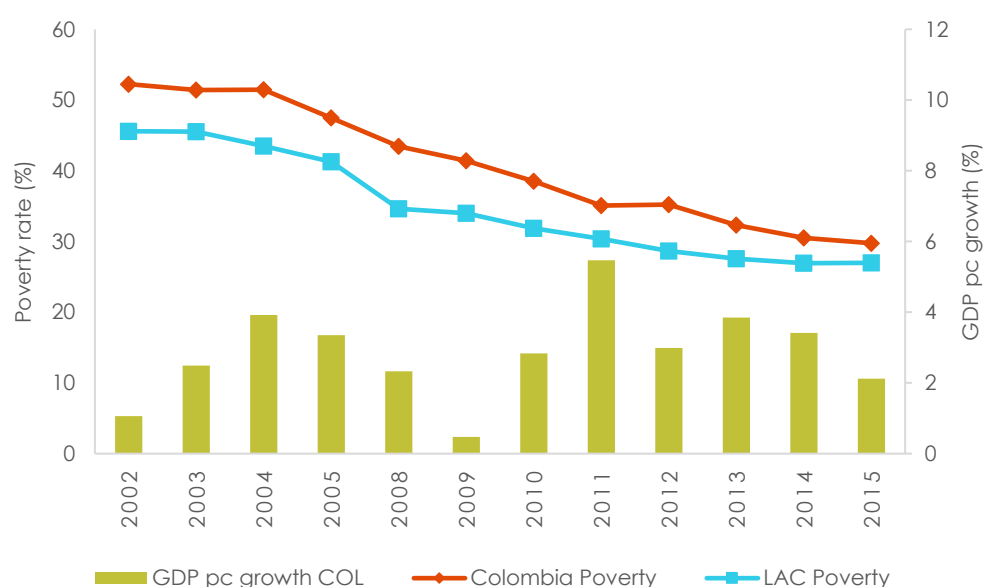


Source: World Bank staff calculations based on GEIH, DANE

Note: Poverty estimates are based on official poverty lines. Given the methodological changes that took place in 2006 and 2007, only the statistics reported for the 2002-05 and 2008-17 periods are comparable.

Colombia's poverty reduction has mirrored that of the Latin America and Caribbean region (LAC) and the levels have been converging in the latest years (Figure 3). In 2002, Colombia's poverty rate was 52.3 percent, about 7 p.p. higher than LAC, measured as the share of the population living on less than US\$ 5.5 a day (2011 PPP). This gap shrank by less than 3 p.p. by 2015. Up to 2010, both Colombia and LAC reduced poverty at a similar pace (-1.7 percent annually). However, in most recent years, Colombia's pace speeded up. After 2012 Colombia's poverty fell at rate of -5.5 percent annually, contrasting that of the rest of the region (-2.0). Even though poverty levels are still high compared to other countries in the region, Colombia was among the countries in LAC that cut poverty by the largest amount since the early 2000s (over 30 p.p.).¹

Figure 3: Evolution of poverty in Colombia and LAC



Source: World Bank calculations based on the Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank). Poverty is defined as the percentage of individuals living on less than \$5.5 US dollars a day (2011 PPP). GDP per capita growth from World Development Indicators, The World Bank.

At the same time, Colombia achieved a significant reduction in its official Multidimensional Poverty Index (MPI). The official MPI fell from 49 percent in 2003 to 17.0 percent in 2017 (see Box 1). This implies that 5.4 million Colombians have overcome the multidimensional poverty threshold.

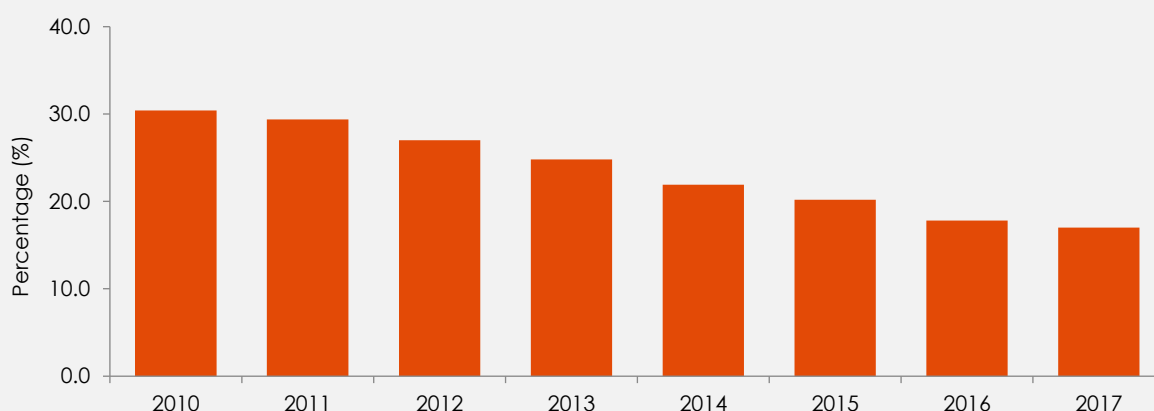
¹ By 2014 Colombia ranked 12th out of 18 Latin American and Caribbean countries for which data is available.

Box 1: Multidimensional Poverty in Colombia

In Colombia, the Multidimensional Poverty Index (MPI) was adopted as a monitoring instrument for public policy based on the *Plan Nacional de Desarrollo 2010-2013 "Prosperidad para todos"*. Furthermore, in 2012, the CONPES 150 introduced the MPI as an official poverty measure, that would complement the existing monetary measures. The selection of indicators that compose the current MPI was based on data available through the *Encuesta de Calidad de Vida* (ECV), and their relationship with the national development plan.

Since 2010, Colombia has been estimating the MPI following the methodology developed by Alkire and Foster (2007). Currently, the index is comprised of five dimensions (education, youth and children, labor, health and housing), each of them with several indicators. The official MPI fell from 30.4 percent in 2010 to 17.0 percent in 2017 (Figure B1), implying that over 5 million Colombians are today considered non-poor in multidimensional terms.

Figure B1.1 Multidimensional Poverty Reduction



Source: World Bank calculations based on data of the *Departamento Administrativo Nacional de Estadística* (Colombia's National Administrative Department of Statistics), DANE

Colombia has experienced an improvement in 14 of the 15 indicators that composed the MPI (Figure B2). The main drivers of the official Multidimensional Poverty reduction have been the increase of educational attainment, the increase in the access to the health system and the reduction of the informal employment. Regarding the health dimension, an additional 10.7% of the population got access to the health system in the last 8 years mainly due to the expansion of the subsidized regime (SR), particularly after 2004.

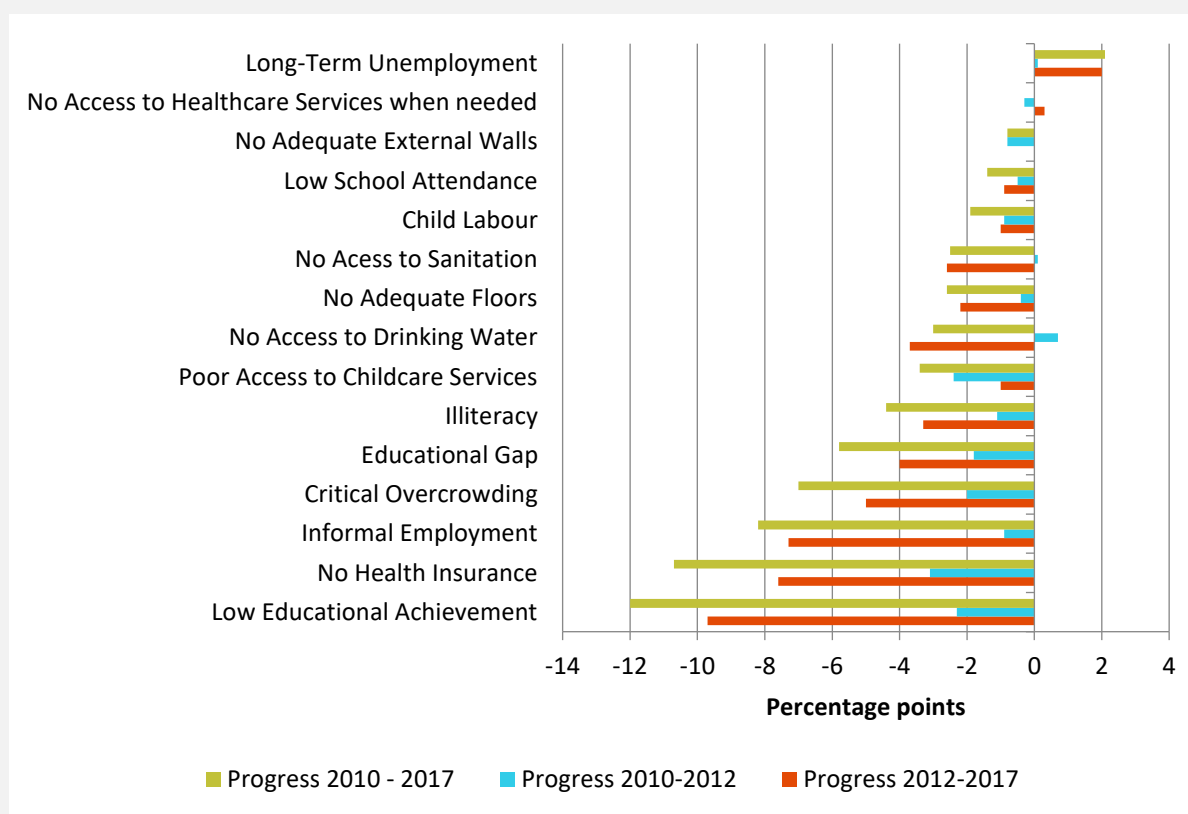
Though a progress regarding informal employment has been observed, the share of people working informally is still high (62.36% of Colombian in 2017).² Long-term unemployment is the

² World Bank estimates based on GEIH. Informality is defined as the share of total workers not contributing to retirement funds. See Annex 1 for informality trends based on this definition since 2008, by geographic area.

only indicator that presents a deterioration, especially during the period 2012-2017. These results are related to the weaker economic performance that the country faced after 2014.³

More importantly, out of the 15 indicators considered in Colombia's MPI, universal coverage has almost been achieved on 4 of them: adequate walls, adequate floors, non-child labor and school attendance; with only a small portion of private households remaining deprived of these opportunities (2.2%, 3.7%, 2.7% and 3.2%, respectively). As a result, the Colombian government has decided to revisit and update the cutoffs and weights of the panel of indicators that compose the current MPI. The new measure should consider the improvements of welfare that Colombia had experienced in recent years.

Figure B1.2. Evolution of Colombia's Multidimensional Poverty by indicator, 2002-2012-2017

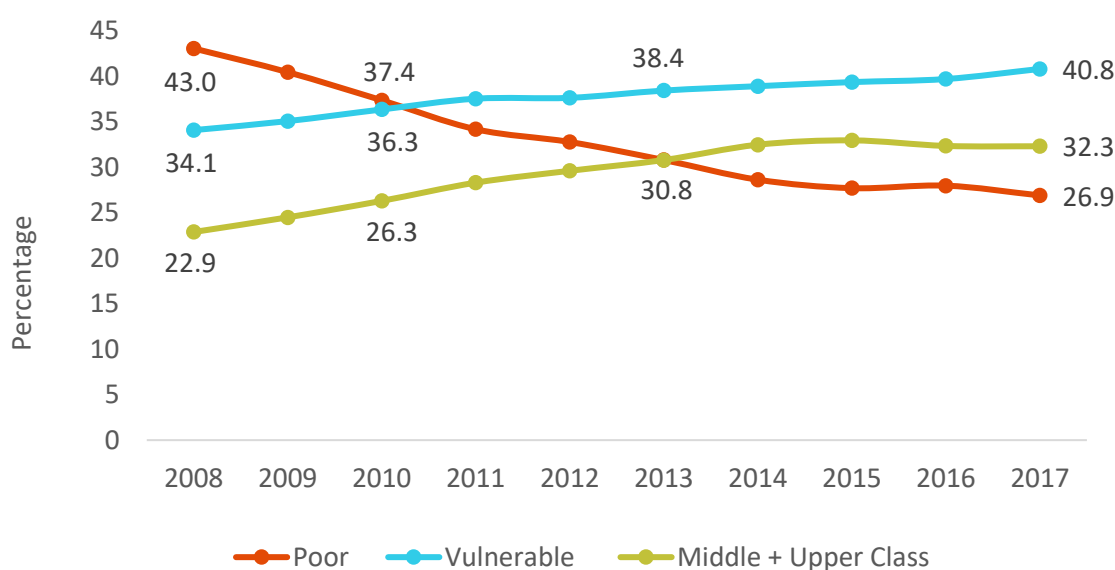


Source: World Bank calculations based on data from the *Departamento Administrativo Nacional de Estadística* (Colombia's National Administrative Department of Statistics), DANE

³In recent years Colombia has experienced macroeconomic shocks that include a drop-in oil prices and the devaluation of the peso.

The welfare gains in the last decade were experienced by Colombians throughout the income distribution. Whilst monetary poverty decreased, the percentage households in the middle class has been increasing (Figure 4). In 2013, the size of the middle-class size matched the share of poor, and for the first time in history, in 2014 it surpassed it. Currently, less than one third of Colombian households lives in poverty and about a third is classified as middle class. The vulnerable group surpassed poverty earlier in 2011 and today is the largest socioeconomic group (about 41%). In other words, over 18.5 million Colombians remain vulnerable to falling back into poverty in 2017. In spite the progress achieved in earlier periods, the socioeconomic structure of Colombia has not changed much since 2014.

Figure 4: Evolution of poverty, vulnerable and middle class



Source: Tabulations of SEDLAC database (CEDLAS and The World Bank)

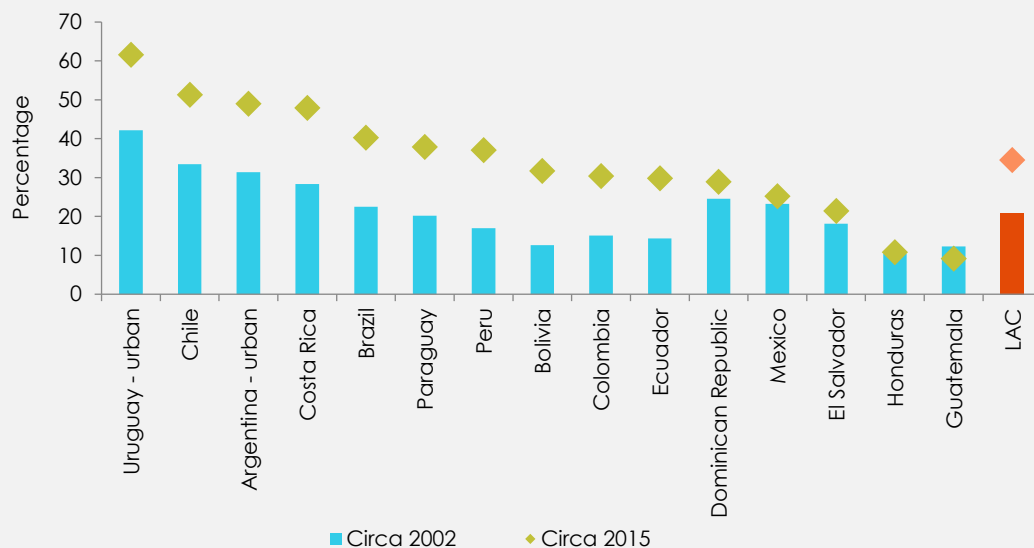
Note: Poor are individuals are considered as those living on per capita incomes less than U\$5.3 a day (2011 PPP), vulnerable are those with per capita incomes between U\$5.3 and U\$13.1 a day (2011 PPP), and the middle and upper class as those with per capita incomes higher than U\$13.1 a day (2011 PPP).

Box I : The Growth of Colombia's Middle-Class vs other Latin American Countries

Over the last 13 years, the Latin America's middle class grew at a faster pace than in the 1990s. Despite significant variation across countries, the region's middle class experienced overall positive growth from 2002 to 2015 (see Figure B2.1). For the first time, in 2011 the LAC region had more people in the middle class than in poverty (World Bank 2013⁴). The trends of declining poverty and a growing middle class were observed up to 2015.

Colombia performed similar than some of its neighbors in the Andean region — e.g., Bolivia and Ecuador, which had comparable middle-class populations in 2002. However, several countries outperformed Colombia transitioning the poor and the vulnerable into the middle class —e.g., Uruguay, Argentina, Costa Rica, and Chile. As of 2015, Colombia had the seventh smallest middle class in LAC.

Figure B2.1 The Rise of Middle Class in LAC (Circa 2002-15)



Source: World Bank calculations based on the Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank).

Note: Circa 2002 denotes other years for Argentina (2004), Chile (2003), Guatemala (2000), Ecuador (2003), Paraguay (2003), and Peru (2004); circa 2012 denotes other years for Chile (2011), the Dominican Republic (2011), Guatemala (2011), Honduras (2011), and Paraguay (2011). The definition of middle class is based on Ferreira et al. (2013).

⁴World Bank, 2013. "Shifting Gears to Accelerate Shared Prosperity in Latin America and the Caribbean". Latin America and the Caribbean Poverty and Labor Brief. World Bank, Washington, DC. Disponível em.

Profiling the poor: who and where are Colombia's less well-off?

Colombia's poor display more precarious indicators than other socioeconomic groups.

Compared to the vulnerable and middle-class populations, the poor in Colombia are characterized by larger households, lower levels of educational attainment, less likely to work, and more likely to be unemployed. Poorer households also have higher dependency ratios due to higher numbers of children under the age of 12. In 2017, the dependency ratio for the poor was more than twice that of the middle class.⁵

Despite the outstanding declines in the incidence of poverty at a national level over the last fourteen years, historical disparities across geographical areas persist.

In 2017, extreme poverty was over 3 times higher in rural areas than in urban, and moderate poverty was 55% higher (Figures 1 and 2). Poverty reduction in rural areas has also been slower. Between 2002 and 2017, both extreme and moderate poverty in rural areas fell by 5 and 3.5 percent annually. In urban areas, the reduction rate was 5.8 and 4 percent annually, respectively. However, these averages hide different dynamics: while poverty reduction was biased to urban areas during the first decade (extreme and moderate poverty falling at an annual rate of 6 and 5 percent) making urban settings more effective at lifting Colombians out of poverty, rural areas lead the reduction after 2012. During 2012-2017, the annual rates of poverty reduction in rural areas were around 2 percentage points higher than in urban areas. This reduced the rural-urban poverty headcount ratio from 1.65 to 1.48 percent in five years.

Sub-nationally, the incidence of poverty varies considerably even among urban areas.

Table 1 compares poverty rates in the 13 main metropolitan areas with rural and other urban areas (Table 1). Between 2002 and 2012, the share of poor Colombians living in main urban areas as well as those residing small and medium urban areas, decreased both by about 17 percentage points (p.p). However, the pace of poverty reduction in the main 13 urban areas was significantly faster (6.7 vs 3.4 percent annually). Even though poverty reduction in small and medium areas was a bit higher (5.7 p.p.) than main urban areas (3.2 p.p.) between 2012 and 2017, the speed of poverty reduction in the latter was again faster. By 2017, the poverty rate in small and medium urban areas stood 2.4 times higher than in main metropolitan areas (36.5 vs 15.7 percent, respectively). In fact, the rate in small and medium urban areas is currently above rural marks (36.0 percent).

⁵ Annex 2 contains detailed profiles of the three socioeconomic groups in 2002 and 2017.

Table 1: Poverty Incidence Across Areas

Extreme Poor				
Headcount ratio				
	2002	2008	2012	2017
Rural	33.1%	32.6%	22.8%	15.4%
Other urban areas	19.2%	19.5%	11.4%	8.4%
Main urban areas (13 A.M)	7.6%	5.6%	3.3%	2.7%
Millions of habitants				
Rural	3.4 M	3.4 M	2.4 M	1.7 M
Other urban areas	2.3 M	2.6 M	1.6 M	1.3 M
Main urban areas (13 A.M)	1.3 M	1.1 M	0.7 M	0.6 M
Moderate Poor				
Headcount ratio				
Rural	61.7%	56.6%	46.8%	36.0%
Other urban areas	59.2%	52.6%	42.2%	36.5%
Main urban areas (13 A.M)	36.2%	27.0%	18.9%	15.7%
Millions of habitants				
Rural	6.4 M	5.9 M	5.0 M	3.9 M
Other urban areas	7.1 M	7.0 M	5.9 M	5.5 M
Main urban areas (13 A.M)	6.5 M	5.2 M	3.9 M	3.4 M

Source: World Bank calculations based on the Socio-Economic Database for Latin America and the Caribbean (CEDLAS and The World Bank).

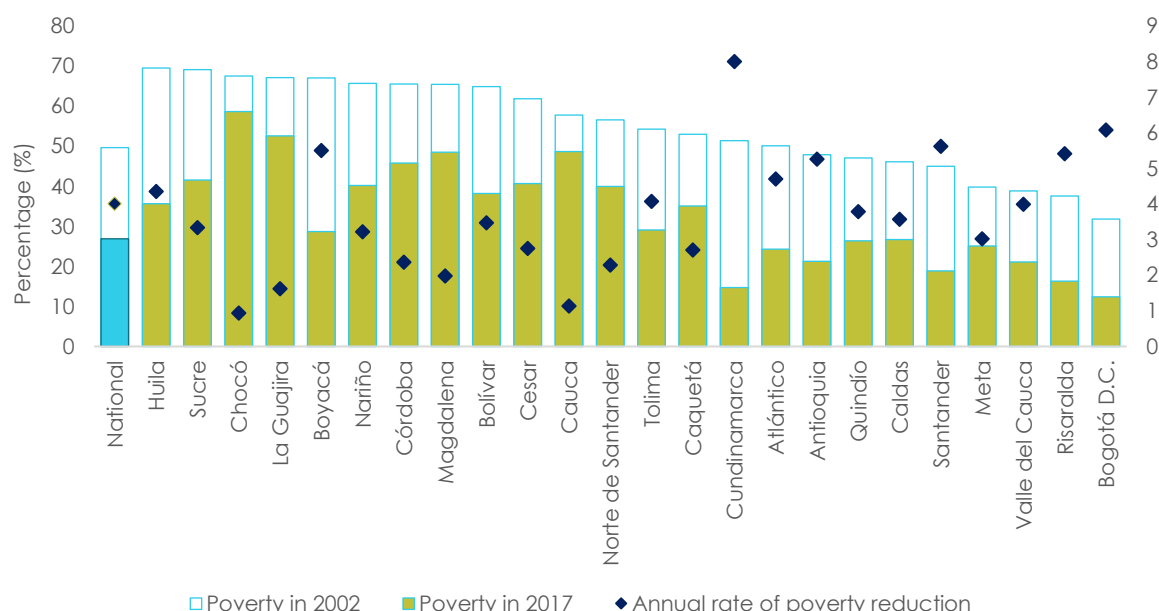
Between 2002 and 2017 poverty fell across departments, but the gap among them persist.

In addition to the large urban-rural gaps, poverty data at the *departamento* level unveils deeper geographical disparities, one of the most important challenges Colombia has on fostering a balanced territorial development. Colombia could reduce the gap across *departamental* poverty rates by 2017, if and only if:

- I. The *Departamentos* that had a **higher** poverty headcount than the national in 2002, experienced a **faster** annual rate of poverty reduction than the national between 2002 and 2017; and
- II. The *Departamentos* that had a **lower** poverty headcount than the national in 2002, experienced a **lower** annual rate of poverty reduction than the national between 2002 and 2017.

Figure 5 shows the poverty headcount, aggregate and by *Departamento*, on 2002 and 2017. It also shows the average annual rate of poverty reduction by *Departamento* and the national one.

Figure 5: Moderate Poverty and Annual Poverty Reduction Rates between 2002-2017, by Departamento



Source: World Bank calculations based on GEIH, MESEP - DANE.

Over the last fourteen years, Colombia did not experienced convergence in poverty headcounts across *Departamentos*. 11 of the 16 *Departamentos* that had higher poverty rates than the national in 2002, diverged from the national mean in 2017, since their annual rates of poverty reduction were **lower** than the national one. For instance, in 2002 Chocó's moderate poverty rate was 18 p.p. higher than the national rate. While national poverty fell at an average annual rate of 4 percent between 2002 and 2017, for Chocó the speed was less than 1 percent per year. The combination of these two facts leads to an increase of the distance of Chocó's moderate poverty relative to the national rate, which by 2017 was more than double (about 59 percent). On the other hand, 4 of the 8 *Departamentos* in which poverty was **lower** than the national rate in 2002 experienced a **faster** poverty reduction than the one seen nationally between 2002 and 2017. In the case of Santander, in 2002 moderate poverty was 0.9 times national levels (45 and 49.7 percent, respectively). By 2017 that fraction became 0.7 (18.9 vs 27 percent, respectively). At 5.6 percent annually, Santander experienced one of the fastest poverty reduction rates over the period of analysis.

Welfare dynamics: socioeconomic mobility of the Poor, Vulnerable and Middle-Class

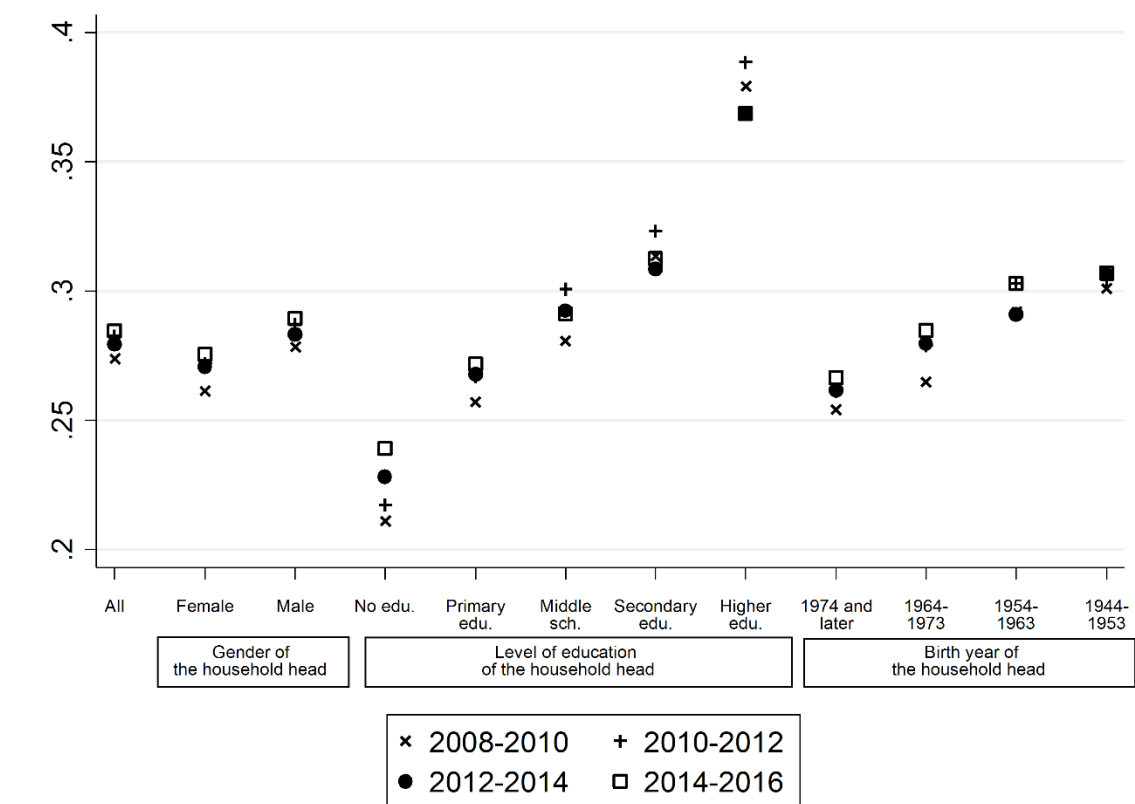
More than half of the Colombians remained in the same income category between 2008 and 2016. Balcazar, et al. (2017) shows that roughly 60 percent of the population remains in the same income category (i.e. poverty, vulnerable or middle-class). However, the vulnerable is the most mobile group among them. More than 60 percent of vulnerable household heads shows either movements up or down. Moreover, the vulnerable Colombian is mainly an upwardly mobile group, irrespective of the pair of years considered in the analysis. For instance, between the initial and end year on average, more than one third of the vulnerable group improves its income status to middle class while around one-fourth falls back into poverty.⁶

Female and male headed households experienced similar socioeconomic mobility in the past decade. Even though poverty rates among female household heads are higher (i.e. about 4 percentage points) than their male counterparts, welfare dynamics are similar across these categories and over time (Balcazar, et al. (2017)). While poverty shrank by 15.1%, 9.4%, 6.3% and 3% for male household heads in each of the four periods, for females it did by 13.6%, 9.2%, 6.7% and 3%, respectively. Yet, female household heads are slightly less likely to escape poverty in every period than their male counterparts (Figure 6).

Households headed by young, uneducated or female heads had lower chances to escape poverty during the 2008-2016 period. Figure 6 shows the rates at which poor individuals escaped poverty and moved to vulnerability in four different time periods for the overall poor population and different observable characteristics of the head of the household such as gender, educational levels and age. The rates to escape poverty and join the vulnerable segment are slightly higher among household headed by males than by females. More importantly, these rates increase along with the level of education of the household head. Most critically, households with uneducated heads are substantially less likely to move up the ladder than any other education groups. Interestingly, the highest mobility rates observed occurred in the 2010-2012 interval. Lastly, for households that fell into poverty, the results mirror those mentioned above (i.e. the likelihood to fall into poverty is higher for households with less educated, female and younger heads).

⁶ Balcazar, Dang, Malasquez, Olivieri and Pico (2018) "Welfare Dynamics in Colombia: Results from synthetic panel", Policy Research working paper; no. WPS 8441

Figure 6. Rates of Escaping Poverty to Vulnerability
(Periods 2008-10, 2010-12, 2012-14 and 2014-16)



Source: Balcazar, Dang, Malasquez, Olivieri and Pico (2017)

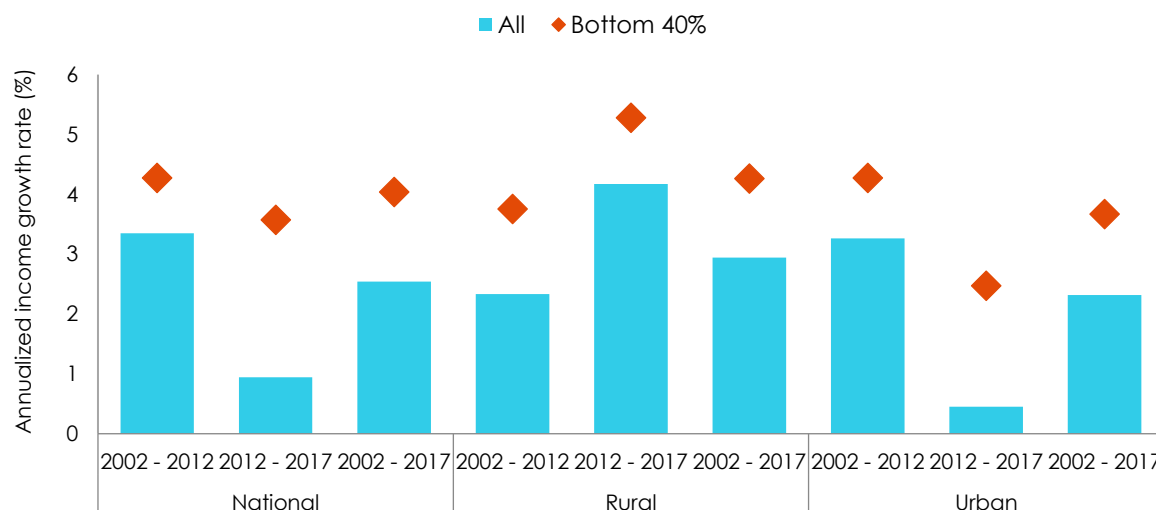
Note: Poor are individuals living in households for which their per capita income is less than the official poverty lines (i.e. U\$5.3 a day 2011 PPP), vulnerable are those households with per capita income are between the official poverty line and the vulnerability line of U\$5.13 a-day in 2011 PPP and middle-upper class those with income per capita greater than the vulnerability line.

Shared Prosperity

Along with poverty reduction, growth in Colombia has been pro-poor as the incomes of the poorest 40 percent of the population have grown above the national average.⁷

Between 2002 and 2017, Colombian households in the bottom 40 percent of the income distribution experienced a growth in their per capita incomes of 4.0 percent per year, compared to 2.5 for the entire population. The *shared prosperity premium* -the additional growth experienced by the bottom 40 relative to the mean- is positive for the whole period of study and across geographical areas. Apart from rural areas, shared prosperity at the national and urban levels were evidently higher during the first decade, and slowed down in the last five years. These lower shared prosperity outcomes have also been experienced in several Latin American countries, because of the economic slowdown that affected the region in the last few years.

Figure 7. Shared Prosperity, by geographical areas



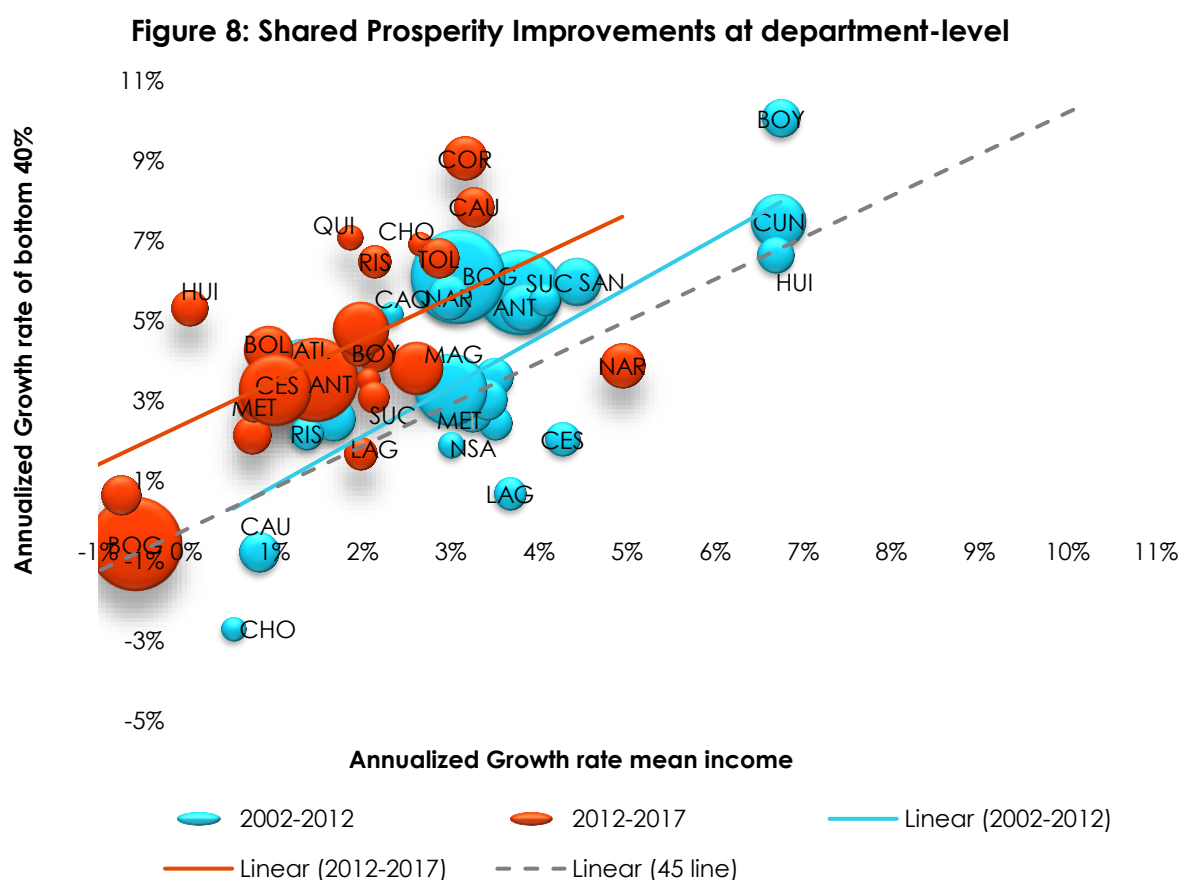
Source: World Bank calculations based on GEIH MESEP-DANE

Shared prosperity outcomes are heterogeneous geographically and over time. During the first decade the incomes of both, overall and bottom 40 population, grew more in urban areas than in rural areas (i.e. 4.3% and 3.3% in urban, vis-à-vis 3.8% and 2.3% in rural areas, Figure 7). Nevertheless, during the period 2012-17, rural areas experienced a larger growth rate for both the overall population and those in bottom 40 percent (5.3% and 4.2%, respectively, vis-à-vis 2.5% and 0.5% in urban settings). Though urban areas had

⁷ The World Bank's Shared Prosperity Index (SPI) measures the annualized growth rate of the average welfare measure among the bottom 40 percent of the population. A comparison with the income growth of the overall population sheds light on how the gains of economic growth are shared across society (World bank, 2016).

lower mean income growths in the last five years, the *share prosperity premium* was larger than in rural areas, 1.4 and 1.3 percentage points, respectively.

Over the same period, department-level improvements in shared prosperity were robust (Figure 8). Between 2002 and 2017, shared prosperity -measured as the annualized income growth of the bottom 40- was generally higher than the overall average income growth across departments, resulting in a narrowing of the income gap between the less well-off and the average Colombian. As observed in the graph, the incomes of the bottom 40 grew up faster in most *departamentos* than the average income during the 2012-2017 period, if compared to the 2002-2012 one. On the one hand, during 2002-2012, most of the less populated departments displayed a larger growth of their average mean incomes than of the bottom 40 (those below the dotted gray line). On the other hand, during 2012-2017 the shared prosperity premium for those *departamentos* was larger than the national mean; for example, the Cordoba's share prosperity premium was 6 percent, while Bogota's premium was around 0 percent.



Source: World Bank calculations based on GEIH MESEP-DANE

Inequality

The higher income growth rates for those at the bottom of the income distribution have translated into lower inequality levels. Colombia's Gini coefficient declined from 57.2 in 2002 to 50.8 in 2017. However, inequality in Colombia remains higher than the region's average (LAC's Gini was 50.5 in 2015). The growth patterns of real per capita incomes during 2002-2017 are consistent with the inequality measures (Table 2). For example, the relative differences in per capita income levels between the richest 10 percent and the bottom 10 percent of the income distribution declined from 13.4 percent in 2002 to 10.0 percent in 2017, with the biggest decline happening in the 2012-17 period. However, the richest 75 percent and the bottom 25 percent of the income distribution remained virtually unchanged between 2002 and 2012 at about 3.6 percent, but declined by 11 percent in the following period.

Table 2. Inequality measure			
	2002	2012	2017
Gini	0.572	0.539	0.508
Theil	0.691	0.580	0.511
p90/p10	13.351	12.197	9.954
p75/p25	3.616	3.613	3.244
Annualized changes			
Gini		-0.60	-0.58
Thei		-1.74	-1.26
p90/p10		-0.90	-2.01
p75/p25		-0.01	-1.07

Source: World Bank estimates based on GEIH, DANE.

Furthermore, the Gini coefficient and the Theil index present a lower declined rate between 2002 and 2012, than during the last four years. Even though Colombia speeded up the reduction in inequality, countries like Bolivia and Honduras with comparable or even higher levels of inequality in 2002, achieved better results in reducing income inequality over the 13-year span. Finally, by 2015 Colombia was the second most unequal country in LAC the region,⁸ one of the most unequal regions of the world (Figure 9).

⁸ Ranking is based among countries for which microdata is available in that particular year. LAC Equity Lab tabulations of SEDLAC (CEDLAS and The World Bank) and World Development Indicators (WDI).

Figure 9: Colombia is the second most unequal country in LAC

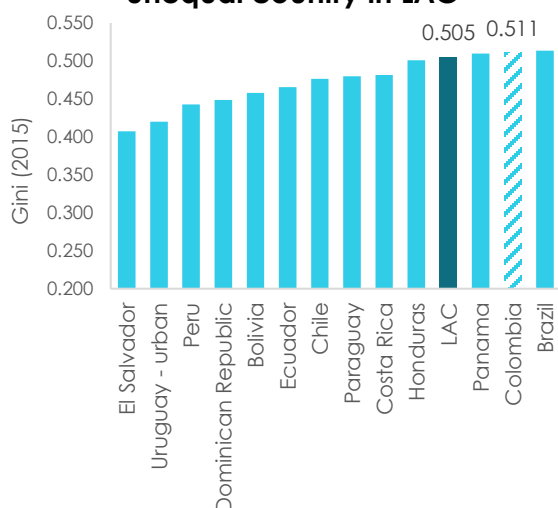
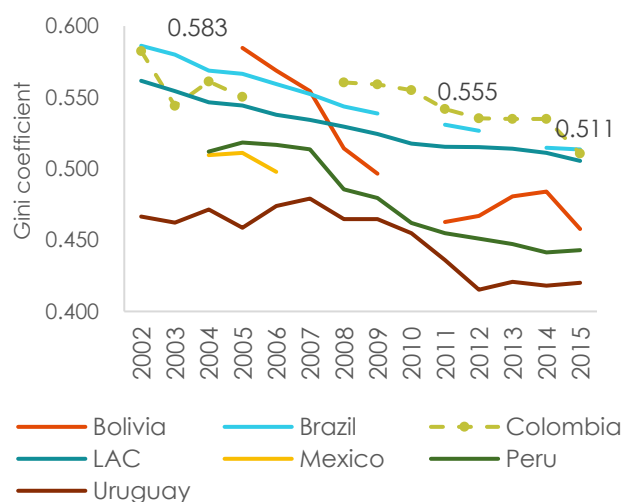


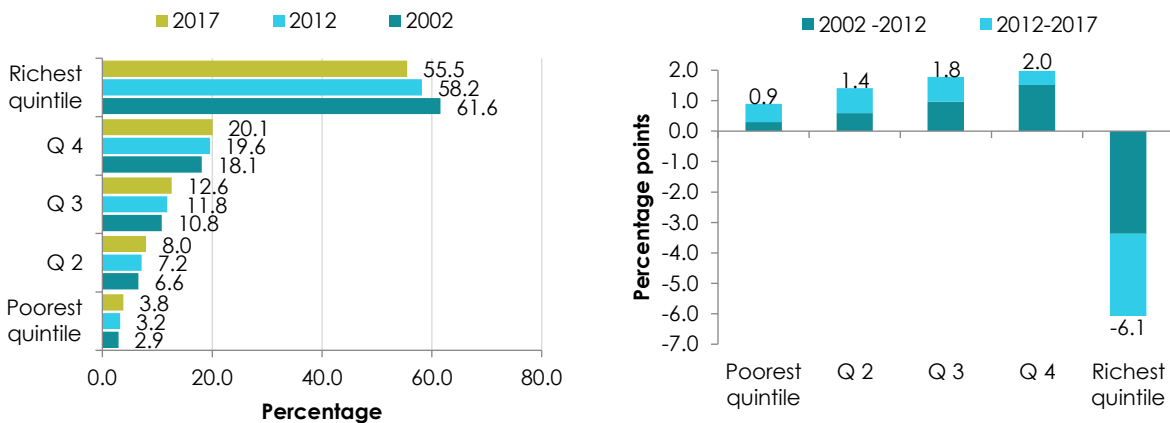
Figure 10: Inequality experienced the largest decline since 2010.



Source: LAC Equity Lab tabulations based on SEDLAC (CEDLAS and World Bank) and World Development Indicators (WDI).

Low mobility of income held by quintiles accompanies Colombia's high and persistent inequality. Some income redistribution took place in 2002-17 (right side of Figure 11), primarily driven by persistent declines in the income held by the top quintile, and increases in the income held by the third and fourth quintiles. However, the gap between the total income held by the richest quintile and the share held by the bottom 40 percent of the population remained wide at the end of the period. In 2017, the year with the lowest level of inequality, the richest 20 percent of the population held about 55 percent of total income, while the bottom 40 percent held around 12 percent of total income (left side of Figure 11). Moreover, while the income share of the bottom 40 percent increase over the period, it did so only marginally.

Figure 11. Share of total income held by each quintile



Source: LAC Equity Lab tabulations based on SEDLAC (CEDLAS and World Bank) and World Development Indicators (WDI).

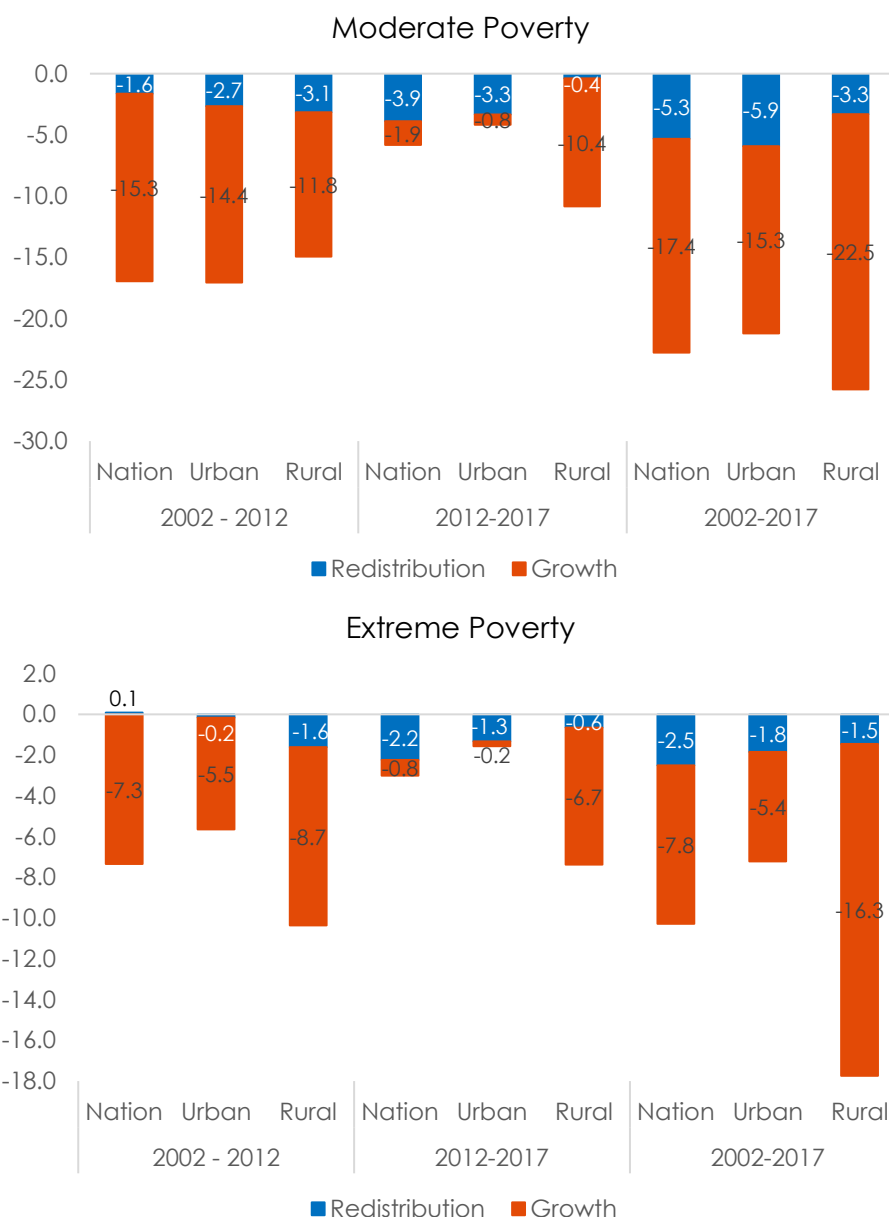
Nevertheless, the redistribution process that took place during the last five years can be described as “pro-poor”. Between 2012 and 2017, when Colombia experienced the largest decline in inequality, the redistribution of income benefited the poorest population and the vulnerable class more than what it did during the 2002-2012 period (right side of Figure 11). In conclusion, persistently high levels of inequality limited the growth's effect on poverty reduction.

II. The drivers behind the changes in poverty and inequality

Understanding drivers of poverty reduction

In the last fourteen years, Colombia experienced outstanding poverty reduction, and the decline was larger in urban areas. As reviewed earlier, between 2002 and 2017 moderate poverty in Colombia was cut by more than 40 percent (from about 50 percent to 27 percent). In urban areas the reduction was of 46 percent (from 45.5 to 24.2 percent), while in rural of 41 percent (from 61.7 to 36 percent, over the same period). Throughout the analyzed period and across geographical areas, poverty reduction is primarily explained by higher per capita incomes, and in a lesser extent by better redistribution. Figure 12 presents the results of the Datt-Ravallion decomposition of moderate and extreme poverty measures for the country and areas over time.

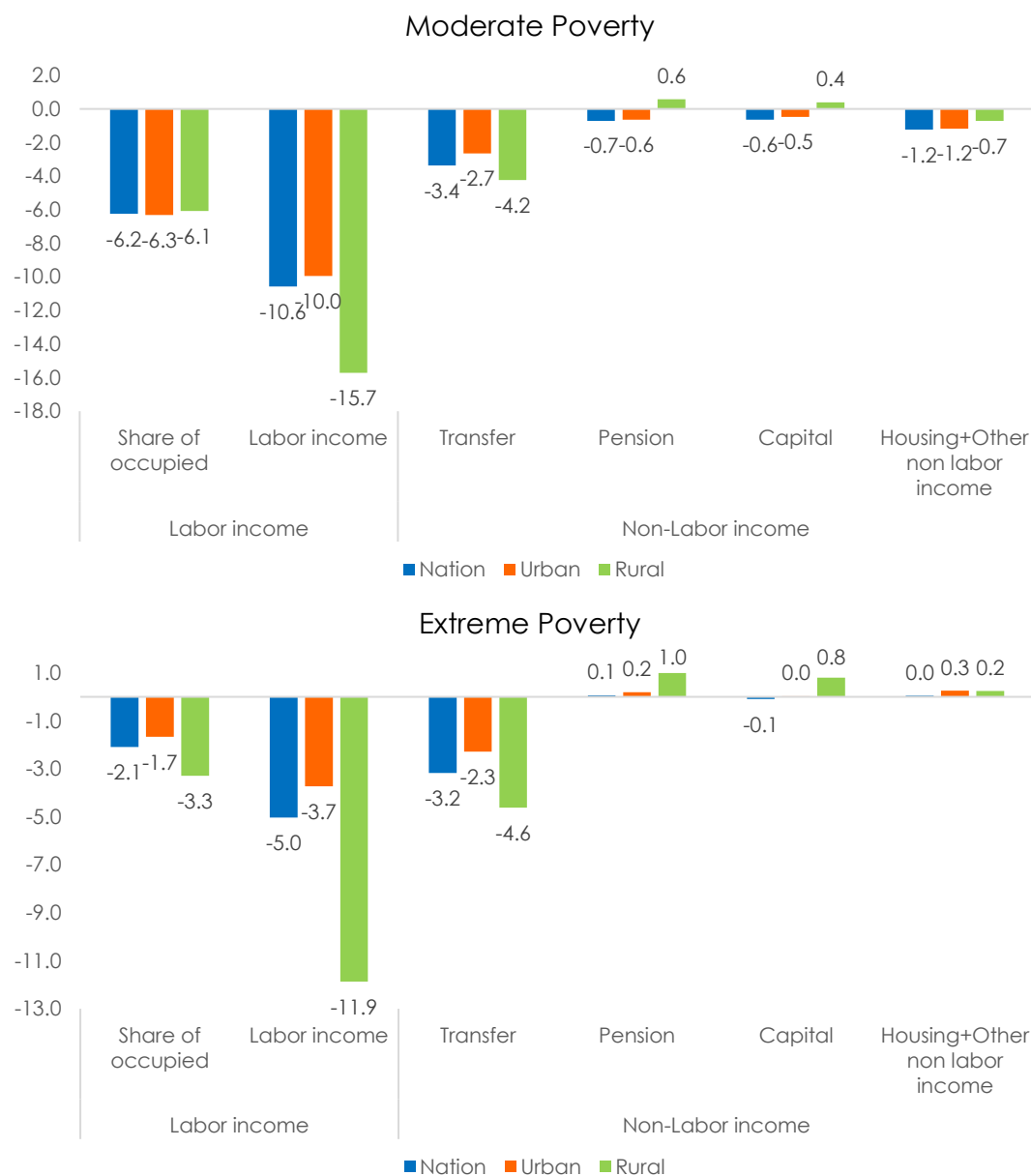
Figure 12: Drivers of poverty change: household income growth and distribution



Source: World Bank calculations based on GEIH, DANE.

Going in-depth, poverty reduction can be decomposed into different income components. The observed changes in poverty can be attributed to changes in the share of occupied adults (access to labor markets), changes in labor income (rewards and distribution of skills), and changes in non-labor income components such as transfers (public and private), pensions, capital, housing and others. Understanding the relative importance and the dynamics of each of these factors may help to shed some light on the main drivers of poverty changes. Figure 13 shows the decomposition of total poverty into the main components of the household income that can help explain it.

Figure 13: Decomposition of changes in poverty, by income sources (2002-2017)



Source: World Bank calculations based on GEIH, DANE

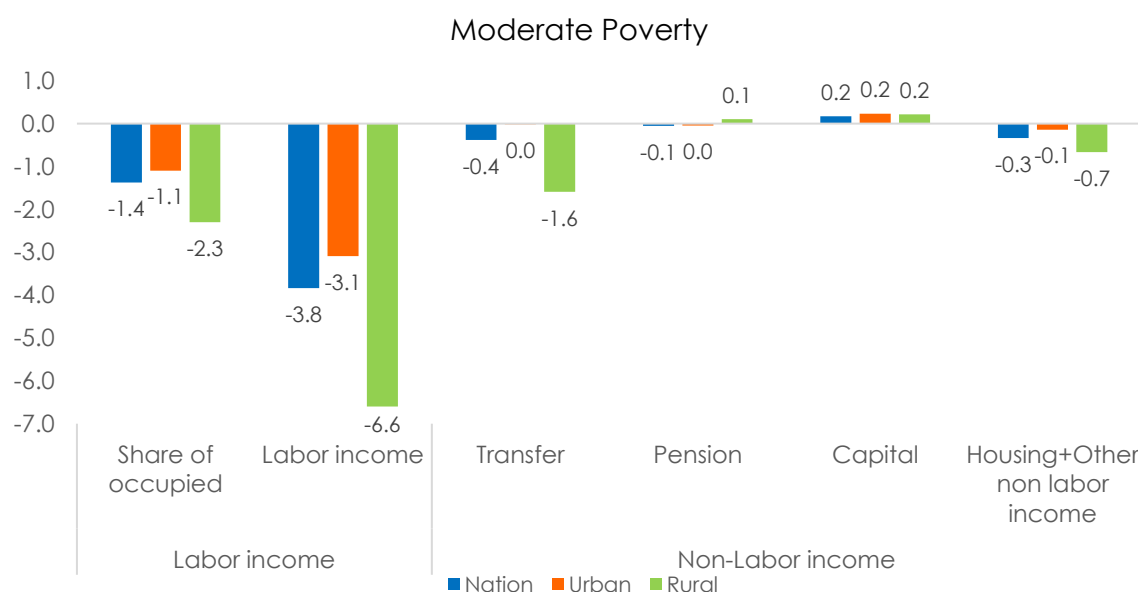
In Colombia, moderate and extreme poverty reduction was primarily driven by labor market over the last fifteen years. The labor market effects include changes in labor income, changes in employment status of household members or a combination of both. More than 70 percent of the total change in moderate poverty is related to labor market components where 46 percent was due to labor income and 27 percent to employment. Similar behaviors were observed in poverty reduction in urban and rural areas. However,

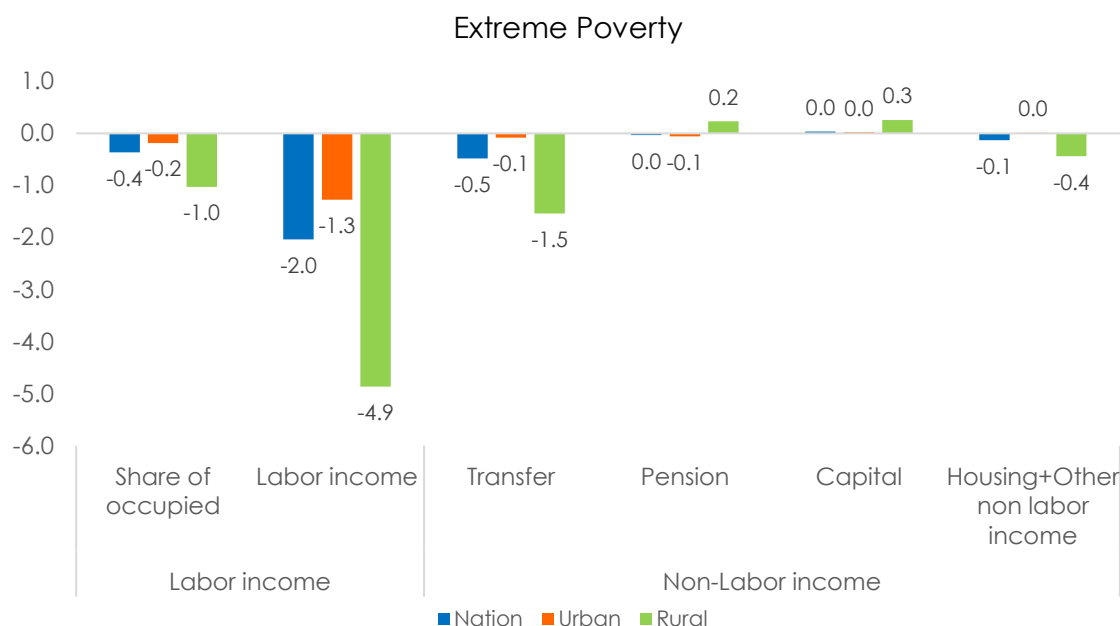
the magnitudes of the contributions were significantly higher in rural areas where 85 percent of the total reduction in rural poverty was driven mainly by labor income (61 percent) followed by employment (24 percent).

Public and private transfers were the most important factors among the non-labor income components in poverty reduction between 2002 and 2017. Transfers account for 15 percent of the reduction in moderate poverty and 31 percent of reduction in extreme poverty. These contributions were particularly higher in rural areas where they explained almost 16 percent of the total reduction in moderate poverty in the last fifteen years.

Even though transfers played a significant role in poverty reduction between 2002 and 2017, these lost their leading role in reducing poverty in urban areas among the non-labor income factors in the last five years. The geographical dynamics are not entirely similar when we account for time. The fourteen-year span can be divided into two periods: first decade (2002-2012) coincides with a relatively faster expansion of the economy; and the second period (2012-2017) coincides with a relatively lower economic growth with devaluation, plunge of oil prices, inflation and increase in unemployment, particularly in urban areas. While decomposition results for the first decade are similar to those presented for the fourteen-year period (i.e. labor income is the main factor), transfers contributed to the reduction in moderate poverty rural areas (i.e. 20 percent) but not in urban areas. Nevertheless, transfers were important in reducing the distance to the poverty line in both areas.

Figure 14: Decomposition of changes in poverty, by income sources (2012-2017)





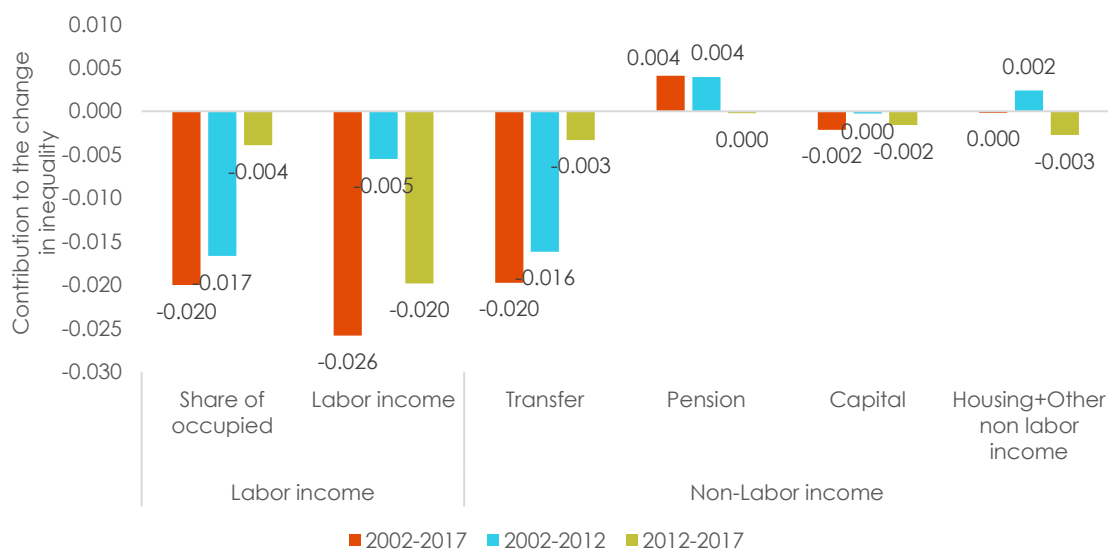
Source: World Bank calculations based on GEIH, DANE

Understanding the drivers of inequality changes

Labor income was also the main driver behind inequality reduction in Colombia, followed by transfers. As seen in Figure 15, labor income accounted for 74 percent of the observed reduction in inequality in Colombia between 2002 and 2017. Below, Figure 16 illustrates the level of inequality of each income source as measured by the pseudo-Gini coefficient. The highly unequal distribution of labor income, coupled with the fact that labor income represented more than two-thirds of total family income throughout the 2002–17 period, explains Colombia's persistently high inequality. For instance, like the Gini of total income, the pseudo-Gini corresponding to labor income declined from 0.51 in 2002 to 0.46 in 2017, primarily since 2011. Another important driver of inequality reduction was transfers. Representing less than 5 percent of total family income, transfers are linked to a 30.9 percent decline in inequality (Figure 15). Accordingly, the pseudo-Gini of transfers had an outstanding reduction of 22 points, from 0.43 in 2002 to 0.21 in 2017 (Figure 16).

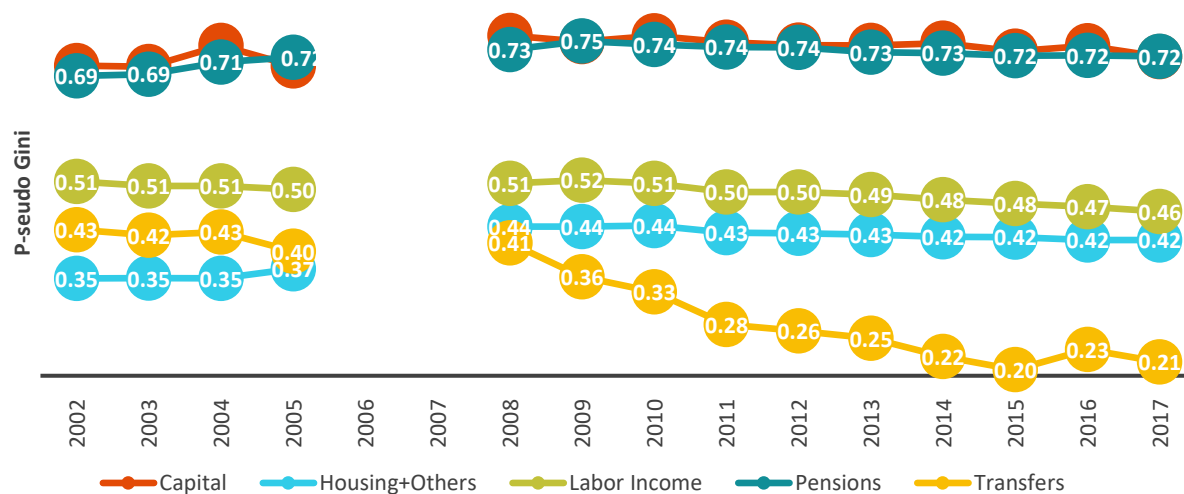
On the other hand, pensions had an unequal effect. Pensions, being primarily held by those in the upper part of the income distribution, have a pseudo-Gini coefficient of around 0.72. Despite the unequal distribution and the fact that pensions contributed to increase inequality, it explains a small proportion of the change (i.e. 6 percent) in inequality between 2002–2017.

Figure 15: Decomposition of inequality by income sources



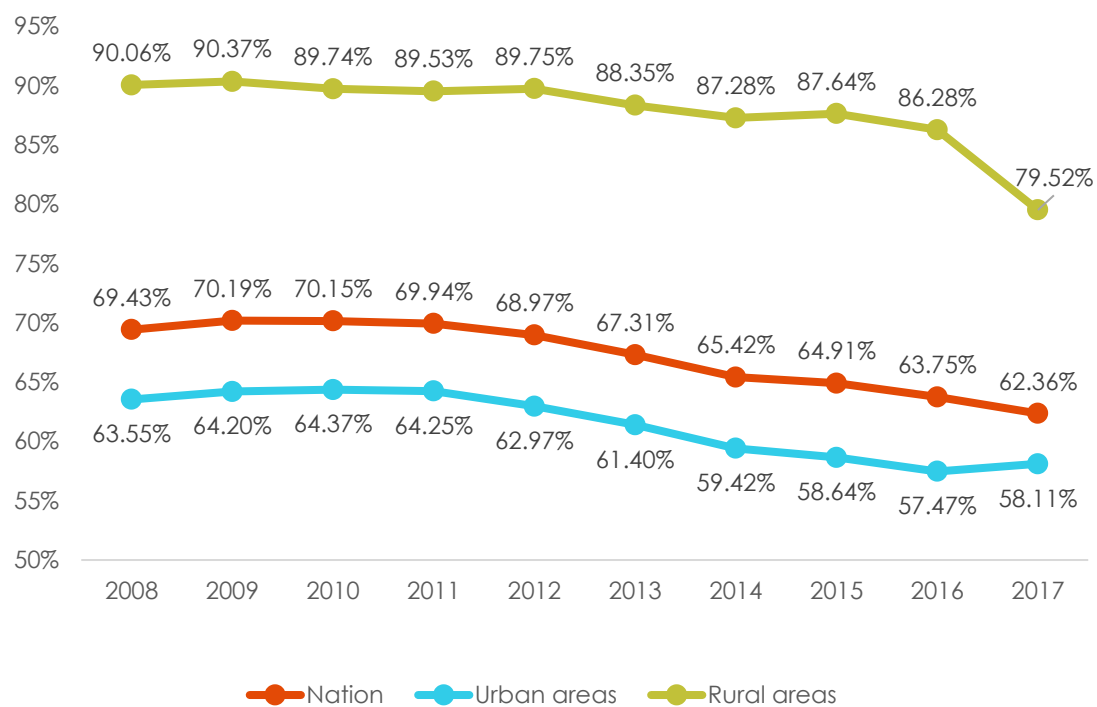
Source: World Bank staff calculations using GEIH (2002-2017).

Figure 16: The Stagnation of Total Inequality is Explained by the Stagnation of Labor Income



Source: World Bank calculations using GEIH (2002-2017).

Annex 1: Informality trends



Note: Informal workers are defined as those who do not contribute to pension funds.
Source: World Bank calculations based on Colombia's GEIH 2008-2017

Annex 2: Profile of the Poor, Vulnerable and Middle Class

	Poor		Vulnerable		Middle - class	
	2002	2017	2002	2017	2002	2017
Household head characteristics						
Age	45.5	46.0	47.5	47.5	48.7	50.2
Female household head (%)	23.5	39.7	27.1	33.7	28.1	35.5
Education						
Years of education	4.7	6.0	7.0	7.0	11.0	10.5
Non- educated	15.9	12.9	7.4	8.1	2.3	2.3
Education level: Basic Primary	54.8	43.7	41.2	39.6	19.0	21.5
Education level: Basic Secondary	15.8	14.9	18.6	14.9	12.4	12.0
Education level: Middle school	11.5	21.7	23.8	26.0	23.9	24.8
Education level: Higher education	2.0	6.8	9.0	11.3	42.4	39.4
Household characteristics						
Household size	4.7	4.2	3.9	3.6	3.0	2.6
Living in urban area	61.5	70.8	85.6	68.6	92.4	91.9
Share of member age 0-12	34.7	33.5	22.3	23.5	15.3	12.3
Share of member age 13-18	13.0	13.9	11.4	11.3	8.5	6.5
Share of member age 19-70	49.3	48.9	62.6	60.9	71.8	74.6
Share of member age 70+	2.9	3.7	3.8	4.4	4.4	6.7
Dependency ratio	79.9	80.0	48.2	52.7	35.0	34.9
Labor market (Age 15-64)						
In labor force	67.5	63.8	73.6	73.4	76.9	81.5
Female labor force	49.6	50.8	62.1	61.5	70.5	74.9
Unemployment status	13.9	11.2	10.6	7.2	6.6	4.7
Employer	5.5	1.8	3.9	3.0	9.0	5.5
Employee	52.5	24.4	59.5	48.6	64.7	64.1
Self-employed	39.0	65.9	33.5	44.2	24.4	29.0
Unpaid worker	3.0	7.9	3.1	4.2	1.9	1.4
Employment sector (%)						
Primary	35.4	29.4	11.6	21.7	5.0	5.6
Manufacturing	10.9	9.7	16.6	11.5	14.3	13.1
Construction	5.8	6.9	5.3	7.0	2.8	5.2
Retail	29.6	37.4	37.5	36.3	29.5	33.2
Utilities	0.3	0.2	0.5	0.4	0.8	0.8
Services	18.0	16.2	28.4	23.0	47.6	42.1

Source: World Bank calculations based on Colombia's national household surveys (ECH for 2002-2006 and GEIH for 2008-2017)

Annex 3: Profile of the urban and rural population

	Urban		Rural	
	2002	2017	2002	2017
Household head characteristics				
Age	46.6	48.2	47.6	48.5
Female household head (%)	28.6	39.2	16.4	23.0
Education				
Years of education	7.8	9.1	3.9	5.0
Non educated	6.7	4.3	21.3	16.1
Education level: Basic Primary	36.7	27.4	60.9	54.0
Education level: Basic Secondary	18.1	14.4	8.8	11.4
Education level: Middle school	21.7	27.6	6.0	13.4
Education level: Higher education	16.8	26.3	2.9	5.1
Household characteristics				
Household size	4.0	3.3	4.4	3.5
Share of member age 0-12	26.6	21.1	31.8	27.3
Share of member age 13-18	11.6	10.0	12.5	12.0
Share of member age 19-70	58.5	63.9	52.3	55.9
Share of member age 70+	3.4	5.0	3.4	4.7
Dependency ratio	57.2	48.8	73.5	65.8
Labor market (Age 15-64)				
In labor force	47.7	52.8	44.4	47.5
Female labor force	41.1	47.0	27.9	32.9
Unemployment status	10.8	6.9	6.4	3.1
Employer	5.0	4.0	11.0	4.0
Employee	52.9	52.8	66.0	33.4
Self-employed	38.2	40.5	22.6	52.5
Unpaid worker	3.9	2.7	0.4	10.0
Employment sector (%)				
Primary	7.3	4.5	63.3	63.6
Manufacturing	15.8	13.3	6.5	6.3
Construction	5.5	6.8	2.7	3.6
Retail	37.8	40.6	15.3	16.1
Utilities	0.6	0.6	0.3	0.2
Services	33.0	34.1	12.0	10.0

Source: World Bank calculations based on Colombia's national household surveys (ECH for 2002-2006 and GEIH for 2008-2017)