

# A Reversal in Shared Prosperity in Brazil



## Brazil's poverty and inequality since the 2014-16 domestic crisis<sup>1</sup>

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### INTRODUCTION



The COVID-19 pandemic arrived in Brazil while the poorest 40 percent of the population was still recovering from the 2014-16 crisis. After boosting Latin America's reduction in poverty and inequality for the previous decade, Brazil's 2014-16 crisis and recovery are a stark departure from the previous decade as Brazil's inclusive growth turned significantly regressive. As millions of jobs were lost, Brazil's expansive social protection system was unable to effectively serve as a countercyclical protection system. This note analyses the recently released household data from 2012 through 2019 to better understand the severity of the 2014-16 crisis across income groups, as well as the uneven and slow recovery experienced following this crisis<sup>2</sup>.

The analysis shows that, during the domestic 2014-16 crisis, Brazil was unable to replicate its earlier successful protection of welfare as over 4.6 million Brazilians fell into extreme poverty between 2014 and 2017. Poverty rates grew from 22.8 percent in 2014 to 23.8 percent in 2016, while extreme poverty grew from 5.6 percent to 7.7 percent between 2014 and 2017. As of 2019 the recovery had yet to reach the poorest - this tendency of crisis-level poverty rates to resist the recovery is found throughout the five regions of Brazil until 2018. As of 2019, the income of the poorest 40 percent remained below its pre-crisis level.

A sharp reversal in shared prosperity<sup>3</sup> during the crisis and regressive income growth has fueled the increase in poverty and inequality. Between 2014 and 2019 the income of the poorest 40 percent fell at an annualized rate of 1.4 percent. During this period, the income of the average Brazilian grew by 0.3 percent per year. From its lowest levels since the twenty-first century, inequality rose sharply in 2016, when inequality grew by 1.5 Gini points in one year – the largest single year jump in inequality since at least the early 1990s – and continued to grow until 2018. All told, the Gini coefficient grew from a low of 52.5 in 2015 to 55.0 in 2018. If income growth during this period had been evenly spread

<sup>1</sup> This brief includes both internationally comparable indicators and indicators based on the official income aggregate, as defined by IBGE, that are not internationally comparable.

<sup>2</sup> Due to a methodological change in the survey series published by IBGE, there has been a limited understanding of the full impact of the 2014-16 economic crisis in Brazil. In October 2019, IBGE published the comparable income series from 2012 through 2018, allowing for a first look at the poverty, inequality, and shared prosperity trends during this critical period. The data for 2019 were published in May 2020.

<sup>3</sup> Shared prosperity is an indicator defined as the income growth of the poorest 40 percent.

across the income distribution, there would be 13 million and 9 million fewer Brazilians living in moderate and extreme poverty in 2019, respectively.

Brazil's post-crisis unemployment is a significant challenge, increasing extreme poverty and inequality. In particular, men's lower employment rates and lower earnings even when employed explain about three-quarters of the increase in extreme poverty and inequality. On the other hand, of Brazil's social protection system, only pension income – likely related to non-contributory programs targeting former workers in both urban and rural sectors - appears to have served to reduce the increases in poverty and inequality. To avoid an exacerbation of these trends under the current pandemic crisis, it is important to understand the labor market and social protection mechanisms which failed to protect the lowest income groups during the crisis – or include them in the recovery.

## HIGHLIGHTS

- ! The COVID-19 pandemic arrived in Brazil while the poorest 40 percent of the population was still recovering from the recent 2014-16 domestic crisis. During this crisis, Brazil was unable to replicate its earlier successful protection of welfare as over 4.6 million Brazilians fell into extreme poverty between 2014 and 2017. As of 2019 the recovery had yet to reach the poorest.
- ! A sharp reversal in shared prosperity (measured as the income growth of the poorest 40 percent) during the crisis, and regressive income growth during the recovery have fueled the increase in poverty and inequality. Between 2014 and 2019 the income of the poorest 40 percent fell at an annualized rate of 1.4 percent.
- ! From its lowest levels since the twenty-first century, inequality rose sharply in 2016, when inequality grew by 1.5 Gini points in one year – the largest single year jump in inequality since at least the early 1990s – and continued to grow until 2018. All told, the Gini index grew from a low of 52.5 in 2015 to 55.0 in 2018.
- ! Brazil's post-crisis unemployment is a significant challenge, increasing extreme poverty and inequality. Men's lower employment rates and lower earnings even when employed explain about three-quarters of the increase in extreme poverty and inequality.

## IMPACT OF THE 2014-16 CRISIS AND ITS AFTERMATH ON HOUSEHOLD INCOME

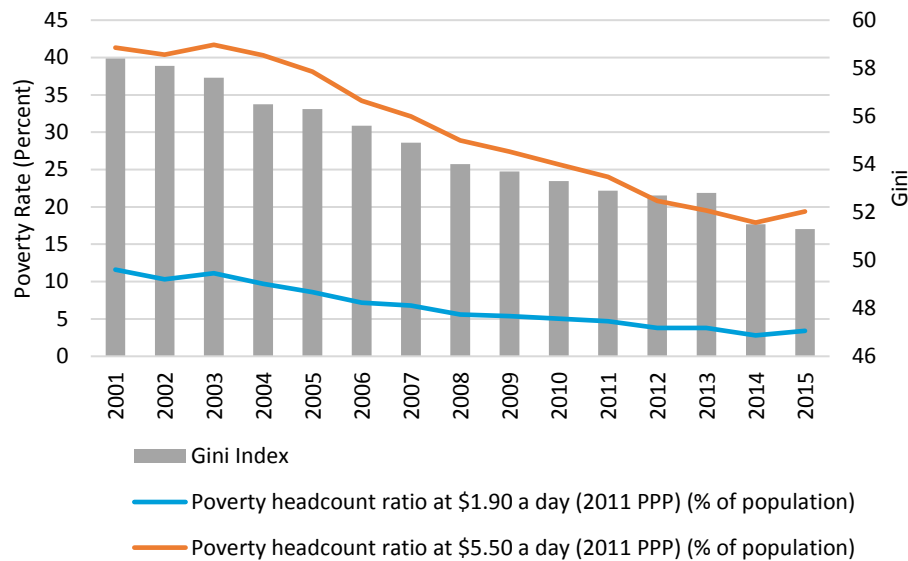


Brazil made significant progress in reducing poverty and inequality since the early 2000s. With GDP growing at 4.0 percent on average between 2003 and 2010 and 2.8 percent over 2011 to 2013, the share of Brazilians living below \$1.90 per day (2011 PPP) fell from 11.1 percent in 2003 to 3.8 percent in 2013 (Figure 1). Between 2001 and 2013, 24.6 million Brazilians escaped poverty. Such reduction in poverty is an achievement of regional significance, representing almost 50 percent of the reduction in poverty in the whole Latin American and Caribbean (LAC) region. Brazil also made substantial progress in reducing overall inequality, although Brazil remains one of the most unequal countries in the world. The trend for the Gini coefficient shows a significant and sustained reduction from 58.4 in 2001 to 51.3 by 2015. To a large extent, this progress was due to a policy of social inclusion, including expanding social protection programs and formal employment, in the context of a booming economy, fueled by favorable external conditions.<sup>4</sup> While Brazil was able to respond successfully to the 2008 global financial crisis by adopting a macroeconomic stimulus, and initially emerged quickly from the crisis, it

<sup>4</sup> World Bank (2016). "Brazil – Systematic country diagnostic." Washington, DC: World Bank Group.

did so at the cost of growing economic imbalances, with rising fiscal deficits, increasing inflation, growing current account deficits and a sharp increase in credit growth, especially from the state-owned banks.

**Figure 1: Poverty and Inequality Trends, 2001-2015**



Source: World Development Indicators.

Note: Gini and poverty headcount rates are based on internationally comparable harmonized data.

Brazil was unable to replicate its earlier successful protection of household welfare during the domestic 2014-16 crisis. The ultimate causes of the growth slowdown were present long before the crisis - low productivity growth, rising unit labor costs, demand reliant on consumption rather than investment, and a steady expansion of government current spending, in particular on the social security system, were all building up problems for the future.<sup>5</sup> These became binding constraints once the commodity cycle turned after 2011. Brazil entered a technical recession in the second half of 2014, accumulating a significant fiscal deficit, high inflation, and one of the largest depreciations among emerging market currencies (Figure 2). Unemployment doubled, growing from 6.8 percent in 2014 to 13.6 in 2017. While growth reentered positive terrain in 2017, the recovery remained tepid through early 2020.

Over 4.6 million Brazilians fell into extreme poverty between 2014 and 2017. Extreme poverty, proxied by the income eligibility threshold for the Bolsa Familia Program (\$2.25 per day in 2011 PPP), grew from 5.6 percent in 2014 to 7.7 percent in 2017 (Figure 3). The population living in extreme poverty grew from 11.4 million in 2014 to 15.9 million by 2017.<sup>6</sup> This group continued growing, albeit at a slower rate, until 2018 reaching 7.8 percent of the population, a number that remained unchanged in 2019. There is a second administrative line used for income eligibility to social assistance programs that also indicates

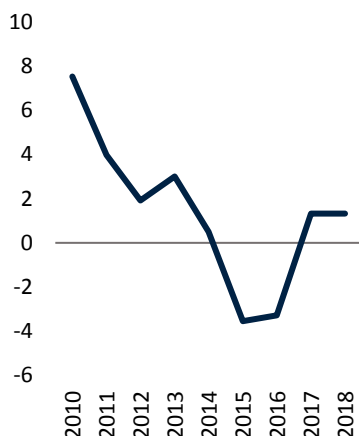
<sup>5</sup> World Bank (2016). "Brazil – Systematic country diagnostic." Washington, DC: World Bank Group.

<sup>6</sup> Within this group, the proportion living in extreme poverty, proxied by the income eligibility for the extreme poverty benefits of the PBF, also increased since 2014, growing from just 2.3 percent of the population to 4.1 percent of the population by 2019.

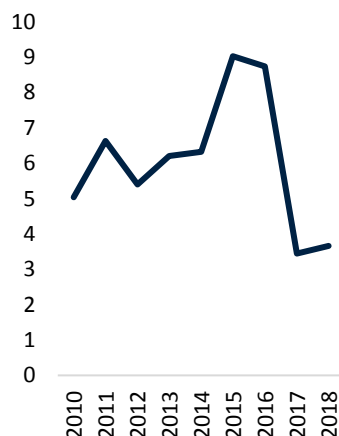
changes in poverty and is close in value to poverty lines in other upper middle-income countries. We refer to the population living on incomes below this threshold as the moderate poor in this report – those whose income is above the Bolsa Familia eligibility but falls within the Unique Beneficiary Registry (Cadastro Unico) eligibility threshold, which is equivalent to half one minimum salary (\$6.32 per day in 2011 PPP). They accounted for 22.8 percent of the population in 2014. This group grew during the crisis, reaching 23.8 percent by 2016, but has since fallen to 21.3 by 2019.

**Figure 2. Macroeconomic Indicators**

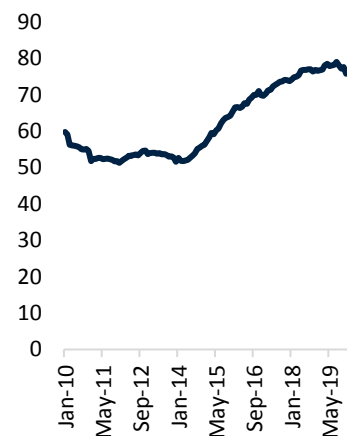
**A. GDP growth (annual %)**



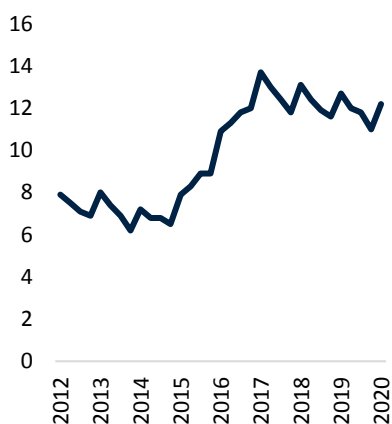
**B. Inflation, consumer prices (annual %)**



**C. Gross Public Debt (% of GDP, monthly)**



**D. Unemployment rates (% of labor force, 2012Q1-2020Q1)**



**E. BRL per USD exchange rate (monthly averages)**

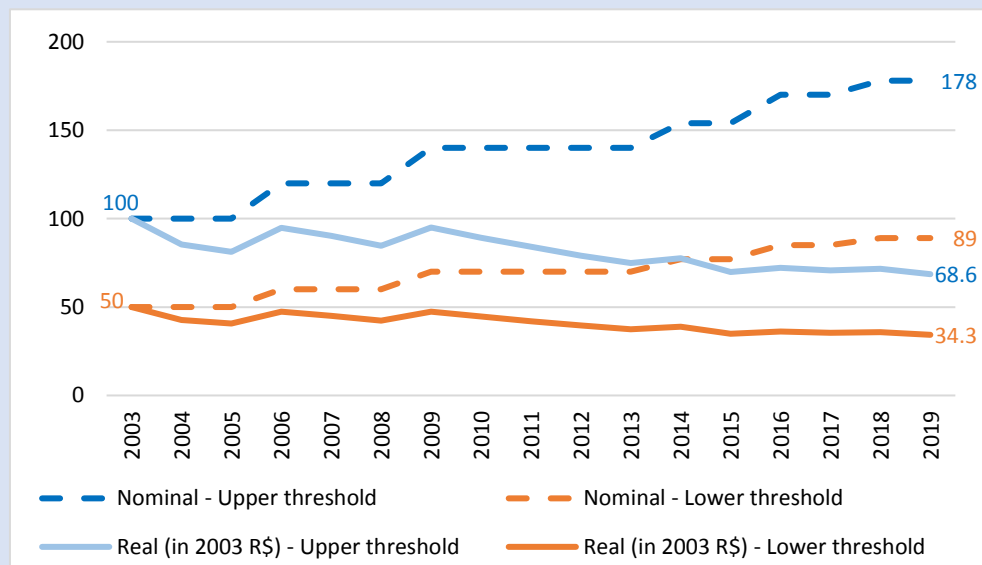


Source: Brazilian Central Bank (Public Debt and Exchange Rate); World Bank World Development Indicators (GDP and Inflation); IBGE (Unemployment). Recent comparable unemployment rate information for Brazil is only available from 2012.

Box 1 – Monitoring poverty in Brazil:

As Brazil does not have an official poverty methodology, we rely on two relevant administrative lines to monitor the number of families struggling financially in Brazil: the value of the eligibility criteria for the Programa Bolsa Familia (PBF) and the minimum monthly salary (R\$ 998/month per capita in 2019). These thresholds are based on key programs in Brazilian public policy and, as such, meia give us an indication of the proportion of households living on limited income based on local expectations. There are two relevant eligibility thresholds for PBF: the “extreme poverty” threshold applies to those with earnings below R\$ 89/month per capita (\$1.13 per day in 2011 PPP), and a higher threshold for families with eligible children at R\$ 178/month per capita (\$2.25 per day in 2011 PPP). This higher value has often been used as a proxy poverty line for Brazil. However, as shown in Figure B1, the real value of these thresholds has fallen over time. Currently, the R\$ 178 stands closer to the original extreme poverty threshold than to its own original value. As shown in Figure B2, this value is just above the \$1.90 per day threshold. Because of this, we use the higher PBF threshold as an indicator of extreme poverty.

Figure B1. Real value of eligibility thresholds for Bolsa Familia, 2003-2018

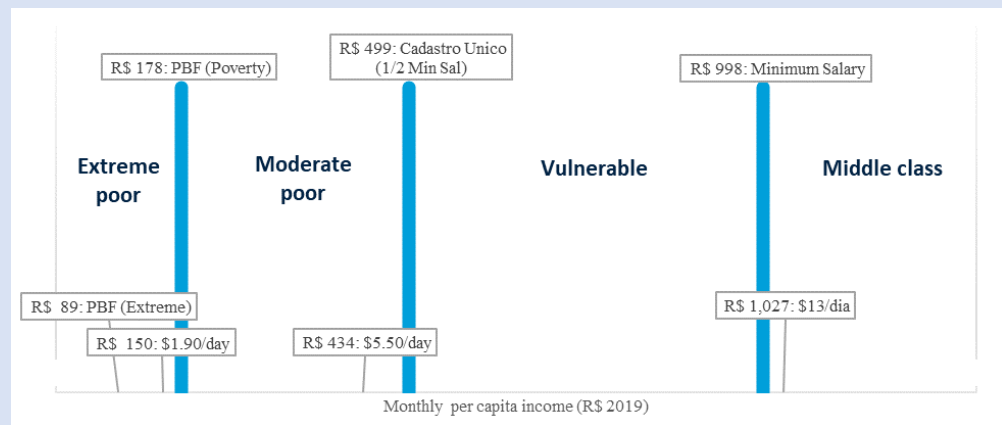


Source: World Bank calculations based on Ministério da Cidadania and IBGE.

The minimum salary is a second relevant threshold to assess the extent to which families are struggling to make ends meet. Using the minimum salary, we construct three groups: 1) the moderate poor are those who live on less than half a minimum salary (\$6.32 per day in 2011 PPP), which is also the income eligibility threshold for the Unique Registry (Cadastro Unico, the registry for public assistance programs); 2) the middle class, which are those living on more than one minimum salary (\$12.64 per day in 2011 PPP); and 3) the vulnerable, those living on less than one minimum salary and more than half a minimum salary and who may be in danger of falling. We calculate each of these in real value based on their values in July 2019 so as to measure changes in the affected population over time.

These values correspond closely to the values used internationally to denote extreme poverty, poverty, vulnerability to poverty, and the middle class. The World Bank’s international poverty lines of \$1.90 (used for Low Income Countries) and \$5.50 per day (used for Upper Middle-Income Countries like Brazil), both adjusted to 2011 PPP, are close to Brazil’s PBF and Cadastro Unico income eligibility thresholds respectively (Figure B2). Thus, the terms “extreme poor” and “moderate poor” used in this note align with “extreme poor” and “poor”, respectively, used with international poverty lines. Similarly, the World Bank’s line of \$13 per day, which separates the vulnerable from the middle class; this is the almost the same as Brazil’s minimum salary in July 2019.

Figure B2. Comparison of international and administrative thresholds, July 2019 (2011 PPP)



Source: World Bank estimates, based on July 2019 prices.

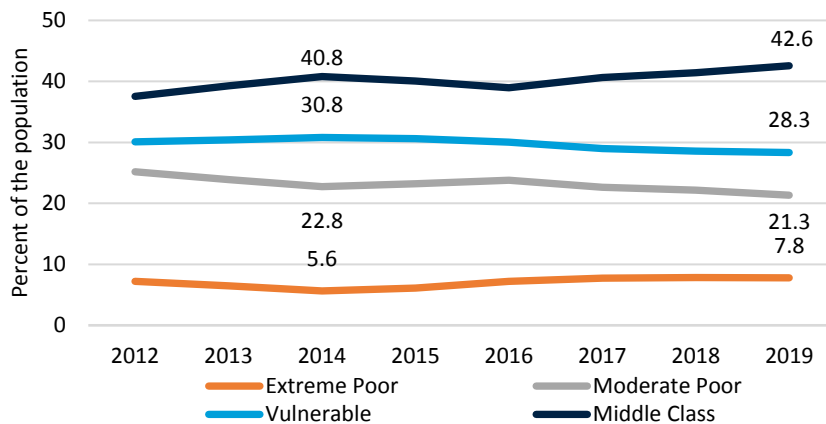
The trends indicate a carving out of the middle of the income distribution – as households moved into the middle class or fell into poverty. The middle class defined as those living on more than one minimum salary per person, accounts for about two in five Brazilians. Some families fell from this group during the crisis but, by 2019, the middle class was larger than it had been in 2014 (42.6 percent of the population from 40.8 percent in 2014). About a third of the Brazilian population is neither poor nor in the middle class. This group are the vulnerable, as their low income means they are vulnerable to falling into poverty.<sup>7</sup> They accounted for 30.8 percent of the population in 2014 but the group has shrunk during the recovery to reach 28.3 percent in 2019 as members have moved into the middle class during the recovery.

While for most of the population the crisis has ended, the recovery has yet to reach the poorest. The new household survey series (PNAD-C) can be divided into three periods: pre-crisis (2012-2014), crisis (2014-2016), and recovery (2016-2019). During the pre-crisis period, there was a decrease in the share of the population who was extreme and moderate poor as these families joined the vulnerable and the middle-class groups (Figure 4). The crisis reversed the trend, with families falling from the latter

<sup>7</sup> Ferreira, Francisco H. G.; Lopez-Calva, Luis-Felipe; Lugo, Maria Ana; Messina Granovsky, Julian S.; Rigolini, Iamele P.; Vakis, Renos. 2013. “Economic mobility and the rise of the Latin American middle class.” World Bank Latin American and Caribbean studies. Washington DC: World Bank.

two groups as their incomes fell. The recovery has not yet reverted to the pre-crisis patterns – rather, more families have continued to fall into extreme poverty even as millions more have joined the middle class. Between 2016 and 2017, the first year of economic growth following the crisis, the middle class grew by 4.1 million people – more than it had lost during the crisis. Between 2017 and 2018 it grew by another 2.3 million and then by 3.1 into 2019. During the same period, the number of poor grew by 1.3 million and 0.4 million and then remained stable between 2018 and 2019.

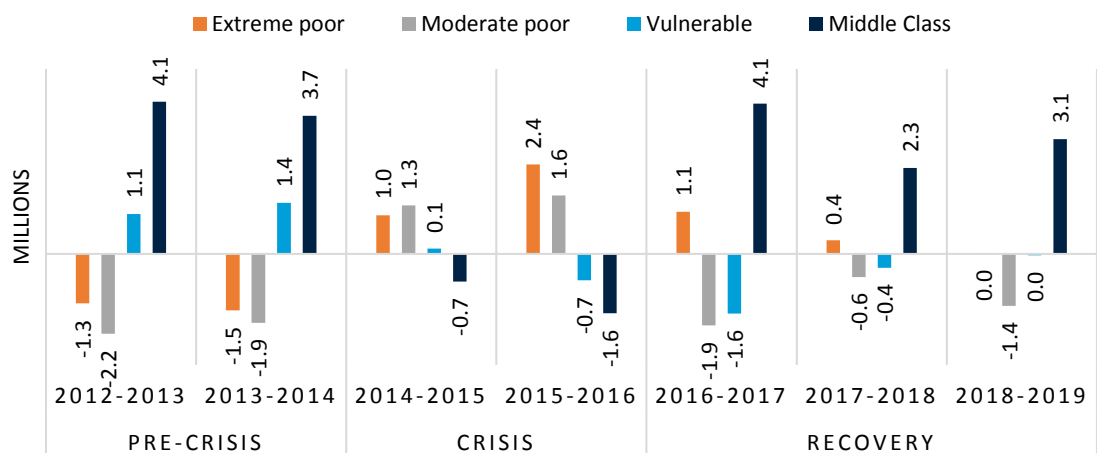
**Figure 3: Poverty Trends, 2012-2019**



Source: World Bank estimates based on PNAD-C

Note: Poverty headcounts are based on local administrative lines and are not internationally comparable. Extreme poverty is equivalent to \$2.25 per day in 2011 PPP; Moderate poverty is equivalent to \$6.32 per day in 2011 PP; and the middle-class threshold is equivalent to \$12.64 per day in 2011 PPP.

**Figure 4: Annual change in population by income group, in millions**

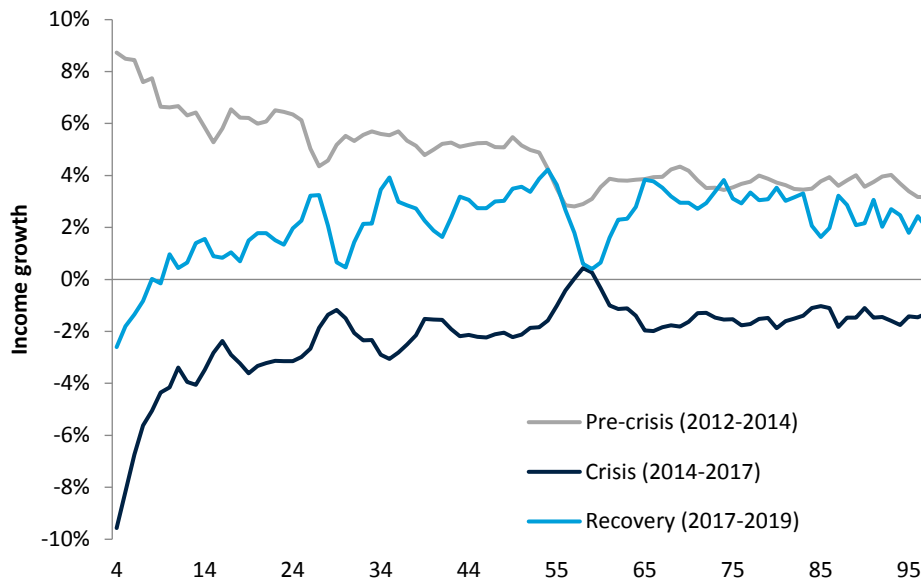


Source: World Bank estimates based on PNAD-C

A closer look at the growth of income across the distribution shows the severe contraction of income suffered by those in the poorest decile – a contraction which has persisted throughout the recovery

(Figure 5). Even as other segments of the population have begun to recover, the very poorest have continued to lose income. At the same time, the growth incidence curves show clearly that the reduction of household income during the crisis was smaller for higher income households and growth during the recovery has, in general, been higher for the households in the top 60 percent.

**Figure 5: Growth incidence by income percentile**



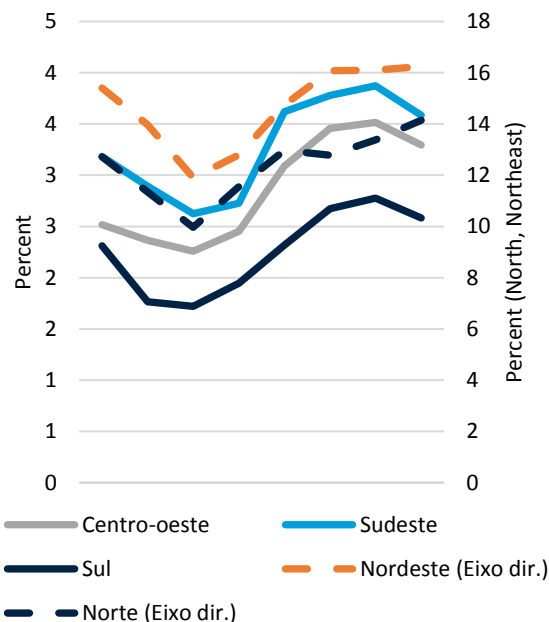
Source: World Bank estimates based on PNAD-C

Note: This figure shows the annualized income growth for each percentile between the 4th and 96th percentile. There is a cluster of pension beneficiaries around the 55th to 60th affecting the distribution of growth during the periods.

This tendency of crisis-level poverty rates to resist the recovery is found throughout the five regions of Brazil until 2018 with poverty starting to decline in 2019 only in the wealthier regions of the country - the South, Southeast and Center-West. While baseline poverty rates are very different across the regions, with the North and Northeast consistently maintaining substantially higher poverty rates, the trends are surprisingly similar until 2018 (Figure 6). Extreme poverty in each region reached a minimum in 2014, ranging from a low of 1.7 percent in the South to 11.9 percent in the Northeast. Compared to 2014, as of 2019, there were 2.7 million more people living in extreme poverty in the Northeast, 900,000 more in the Southeast and North, and a total of 300,000 and 200,000 more in the South and Center-West, respectively (Figure 7). The carving out of the middle noted at the national level is found throughout the country: the size of the middle class, defined by those who live on more than one minimum salary per capita, also grew in each region; it grew by 3.2 million in the Southeast, 2.7 million in the Northeast, 1.1 million in the South and Center-West, and half a million in the North.

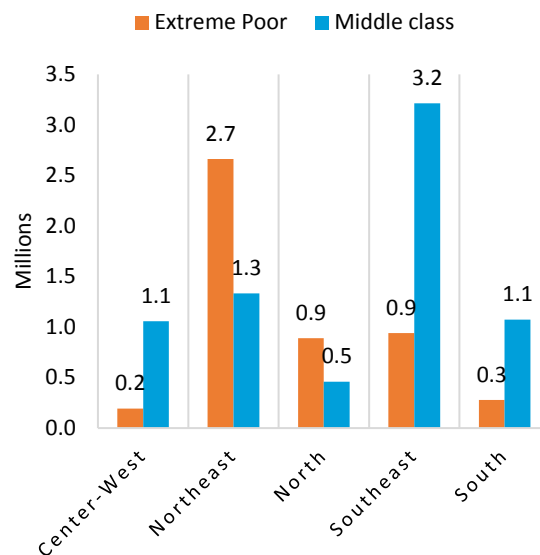


Figure 6. Regional extreme poverty rates, 2012-2019



Source: World Bank estimates based on PNAD-C.

Figure 7. Growth in the number of people living in extreme poverty and in the middle class by region, 2014-2019



**AS THE INCOME OF THE POOREST 40 PERCENT FELL, INEQUALITY INCREASED SHARPLY DURING THE CRISIS**



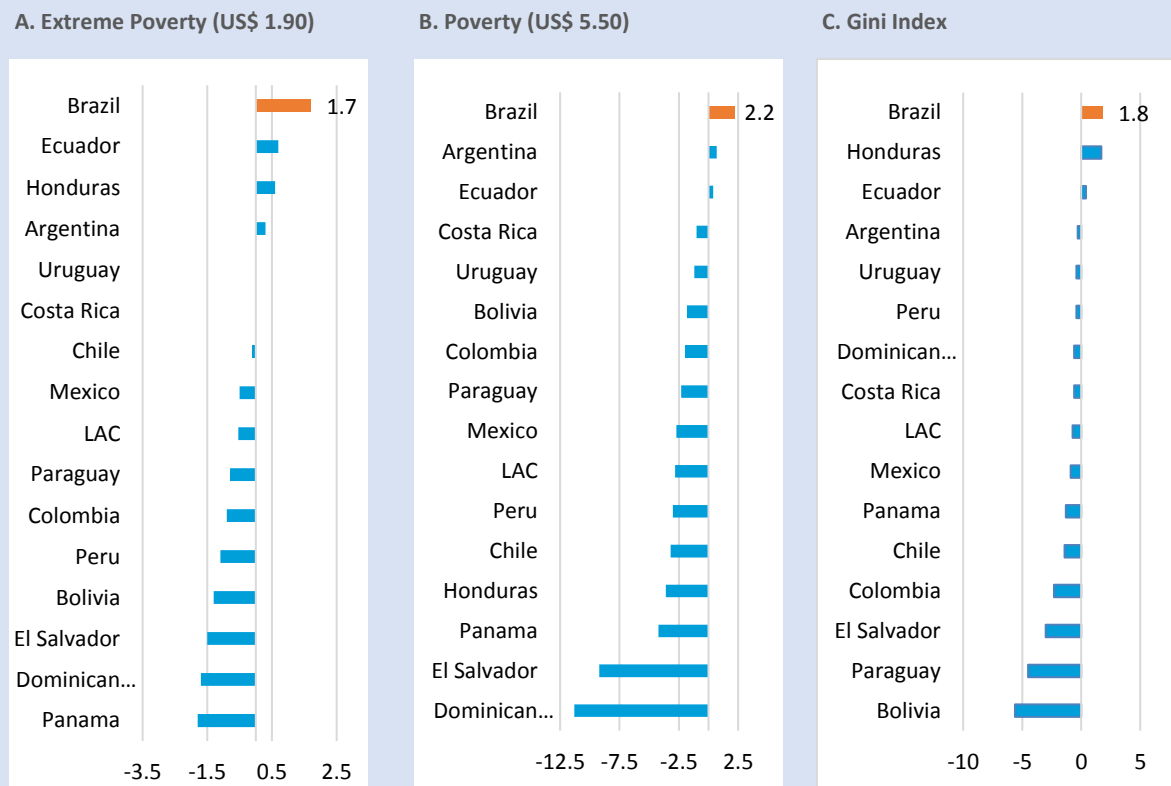
Behind the simultaneous increase in extreme poverty and the middle class was a sharp increase in inequality. After reaching its lowest levels since the twenty-first century in 2015, inequality rose sharply in 2016 and continued to increase during the recovery until 2018 (Figure 8). The sharpest increase was during 2016, when inequality grew by 1.5 Gini points in one year – the largest single year jump in inequality likely since the 1990s.<sup>8</sup> All told, the Gini coefficient grew from a low of 52.5 in 2015 to 55.0 in 2018. By 2018, the inequality gains since 2012, the beginning of this series, had been fully erased. Since the Gini is sensitive to changes in the extremes of the income distribution, the ratio of income of the 75th and 25th percentiles can serve as a powerful robustness check as it is a more stable indicator of inequality. The trend of this second indicator verifies the significant increase in inequality during the crisis. In 2014, the 75th percentile had income that was 3.3 times higher than the 25th percentile; by 2018 this value had grown to 3.6. During this period Brazil stood out in Latin American and the Caribbean as one of the few countries that saw poverty and inequality rise. Moreover, among the few countries which saw these indicators rise, the increases experienced in Brazil were the largest (Box 2).

<sup>8</sup> Looking at the Gini Index trend from the WDI database - that despite being calculated using a different method and though not perfectly comparable is a good indication regarding this indicator's trend - the largest jump in this coefficient had happened in 1992 and since then most reported years showed decreases and a few smaller jumps.

**Box 2 – How do recent poverty and inequality trends in Brazil compare to the Latin American and Caribbean region?**

In order to calculate internationally comparable poverty indicators, the World Bank uses harmonized versions of each country’s household survey, like the PNAD-C, to increase the comparability of welfare aggregates. In the case of Brazil, this internationally comparable welfare aggregate differs from the original constructed by IBGE and used throughout this note in three ways: 1) income in rural areas is adjusted to take into account differences in prices with regard to urban areas; 2) for home owners the value of rent is imputed and included in the income aggregate; and 3) non-family members (like renters and domestic workers) are excluded from the household. As a result, poverty rates based on the harmonized numbers are lower, but trends over time are consistent. The value of these numbers is that they allow a comparison of how Brazil – and its states – fares with respect to its neighbors.

**Figure B3. Comparison**



Source: World Development Indicators. For Mexico, only changes between 2016 and 2018 are shown due to a discontinuity in the data series. For Chile, changes refer to the period from 2013-2017.

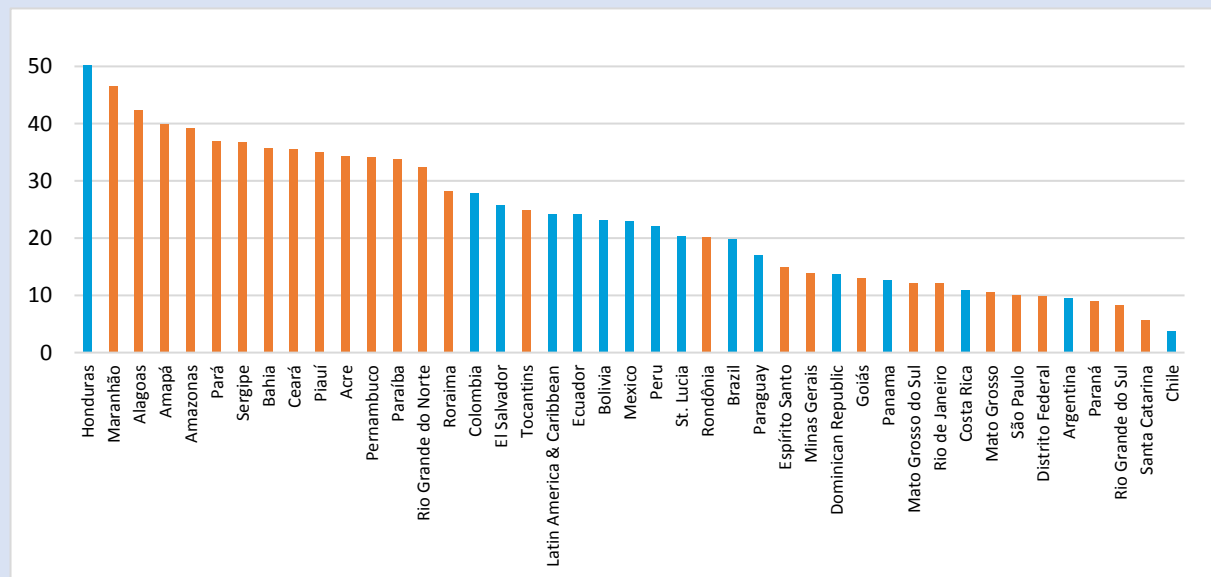
Note: LAC shows indicators for Latin America and Caribbean excluding Brazil, based on pooled country-specific data.

Over the period of 2014 to 2018, Brazil stood out in the region as one of the few countries that saw poverty and inequality rise. Moreover, among the few countries which saw these indicators rise, the increases experienced in Brazil were the largest. Extreme poverty in Brazil rose by 1.7 percentage points (p.p.) and poverty measured at US\$ 5.50 per day by 2.2 percentage points. Increases experienced in other countries

were substantially lower, as shown in Figure B3. Considering that these have substantially lower population sizes than Brazil, this means they also saw significantly lower numbers of people entering poverty over this period. Extreme poverty increased only in Ecuador (0.7 p.p.), Honduras (0.6 p.p.) and Argentina (0.3p.p.) but fell in all other countries in the region for which poverty data exists. Reductions were considerable for many countries, especially for poverty measured at US\$ 5.50, which reduced by more than 10p.p. in the Dominican Republic and by 9.2 p.p. in El Salvador. Likewise, increases in inequality were the exception in the region with Brazil seeing the largest surge (1.8 Gini Index points). Only Honduras experienced a similar increase (1.7 Gini Index points) and inequality in Ecuador rose by 0.4 Gini Index points, while all other countries with comparable data experienced reductions in inequality.

Brazilian states span the Latin American range of poverty rates, highlighting the stark disparities existing in Brazil. Of the Latin American countries with poverty data in 2018, only Honduras has higher poverty rates than the 14 states with the highest poverty (Figure B4). Maranhão’s poverty rate, at 46.5 percent of population living on less than US\$ 5.50 a day, is similar to Honduras’s headcount of 50.3 percent. On the other hand, Santa Catarina, Rio Grande do Sul and Paraná fall between Chile and Argentina, the two countries with the lowest poverty headcount rates in the region. Roraima, Tocantins and Rondônia have poverty rates in line with regional aggregate and rates of a number of countries in the regions, such as Colombia, Ecuador, Bolivia, Mexico and Peru.

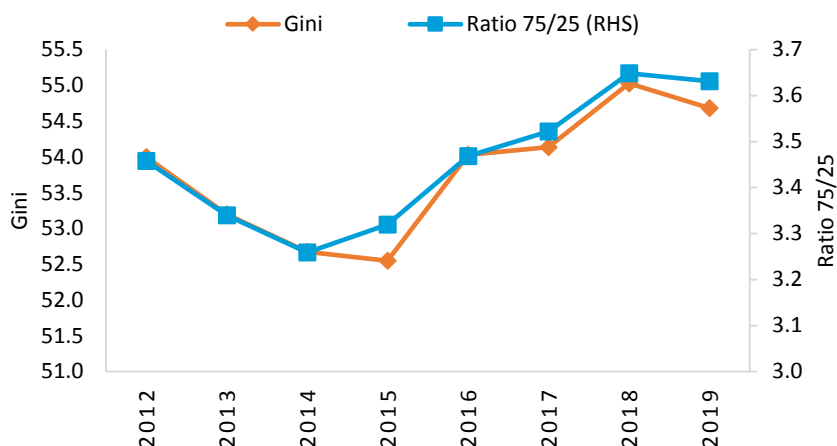
**Figure B4. Regional comparison of state-level poverty rates at US\$ 5.50 a day, 2018**



Source: World Bank estimates based on SEDLAC (World Bank and CEDLAS) and World Development Indicators.

Inequality figures from 2019 suggest a welcome respite. The Gini coefficient fell by 0.3 points to 54.7 while the ratio of income of the 75th and 25th percentiles fell by 0.2 to 3.63. These are still modest reductions and inequality remains at levels much higher than pre-crisis but it suggests a beginning of a recovery.

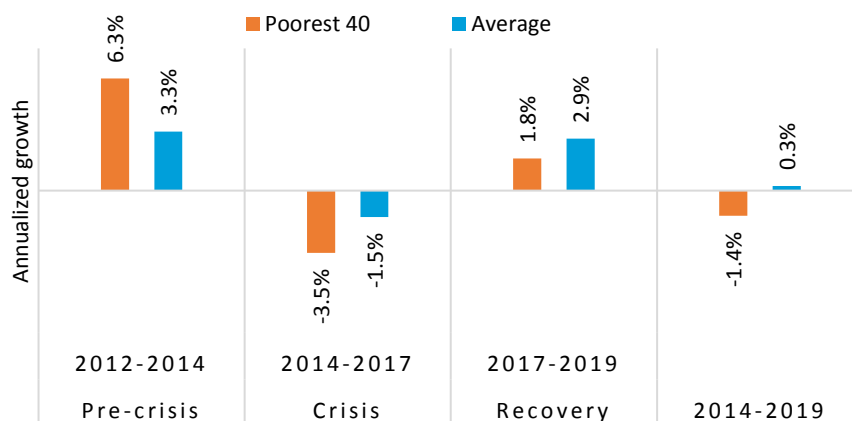
Figure 8: Inequality trends, 2012 – 2019



Source: World Bank estimates based on PNAD-C

Shared prosperity, higher income growth for the poorest 40 percent of the population, was a salient feature of the pre-crisis period. Between 2003 and 2013, the income of the poorest 40 percent grew at an annualized rate of 7 percent – well above the average income growth of 4.5 percent during this same period (World Bank 2016). Though the levels are not comparable, the new data series beginning in 2012 showed a continuation of this trend until 2014, as income for the poorest 40 percent outperformed the average income growth. However, this pattern underwent a significant reversal during the 2014-16 crisis and its recovery. The poorest 40 percent, already beginning from a lower income base, saw a sharper decline – with their incomes shrinking at an annualized rate of -3.5 percent during the crisis. The average income during this period shrank by -1.5 percent.

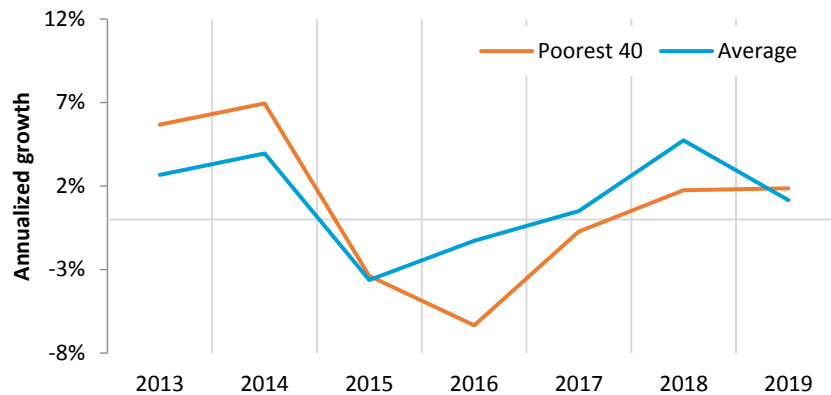
Figure 9: Shared Prosperity, 2012 – 2019



Source: World Bank estimates based on PNAD-C

As of 2019, the income of the poorest 40 percent remained below its pre-crisis level. The starker difference between average income and income of the poorest 40 percent came during the recovery – whereas the average income began recovering in 2017, the poorest 40 continued to lose income (Figure 9). Between 2017 and 2019, the poorest 40 percent saw their income grow by only 1.8 percent per year while the average income grew at an annualized rate of 2.9 percent. Combining the crisis and its aftermath, between 2014 and 2019 the income of the poorest 40 percent fell at an annualized rate of -1.4 percent. During this period, the income of the average Brazilian grew by 0.3 percent per year.

**Figure 10: Annual income growth, 2012 – 2019**



Source: World Bank estimates based on PNAD-C

Increased income inequality during the crisis and recovery offset potential poverty reduction from income growth during the recovery. This is shown by decomposing poverty changes between the effect of growth in the overall income level versus changes in the distribution of income (Figure 11).<sup>9</sup> Though the crisis reduced income levels initially, as shown above, the recovery has already pushed real incomes higher than pre-crisis levels. This means that, had income growth during the recovery been evenly spread across the income distribution, poverty in 2019 would have been more 11 percentage points lower (18.1 percent rather than 29.1 percent), and extreme poverty would have been more 4.6 percentage points lower (3.2 percent rather than 7.8 percent).

Increased inequality has also reduced the potential growth of the middle class. The decomposition shows that the growth in household income since the crisis would have increased the middle class by 14.0 percentage points. However, the increase in inequality has mitigated this growth, reducing the growth of the middle class by 12.3 percentage points (Figure 12). If income growth had been evenly distributed between 2014 and 2019, 25 million more Brazilians would be living on more than 1 minimum salary per capita in 2019.

<sup>9</sup> Datt, Guarav; and Martin Ravallion (1992). "Growth and redistribution components of changes in poverty measures: A decomposition with applications to Brazil and India in the 1980s." *Journal of Development Economics* 38(2): 275-295.

Figure 11. Drivers of extreme poverty, 2014-2019

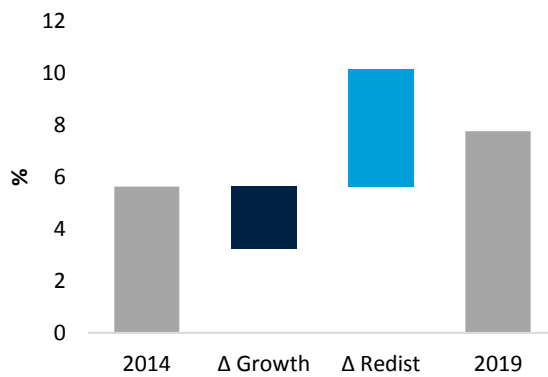
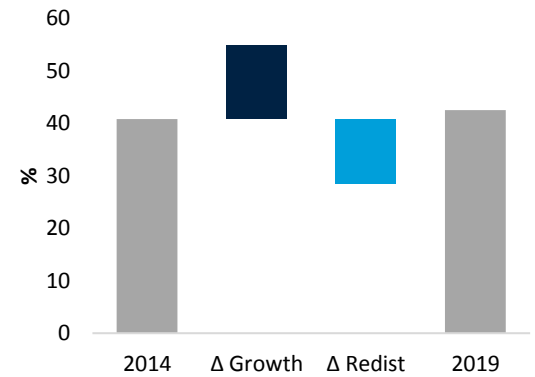


Figure 12. Drivers of the middle class, 2014 - 2019



Source: World Bank estimates based on the PNAD-C.

Note: These figures report the results of Datt-Ravallion (1992) decompositions on the change in the share of the population and in the middle class, respectively.

**ELEVATED UNEMPLOYMENT IS A KEY DRIVER OF EXTREME POVERTY AND HIGHER INEQUALITY**



Reductions in men’s employment and earnings explain three quarters of the increase in extreme poverty and inequality. Figure 13 reports the changes in extreme poverty and inequality between 2014 and 2019, decomposed by six factors: changes in men’s employment, changes in men’s labor earnings if employed, changes in women’s employment, changes in women’s labor earnings if employed, changes in non-labor income such as pensions and transfers, and changes in the share of the household that is working age (15 to 69).<sup>10</sup> This last component captures the effect of changes in the dependency ratio due to demographic transition. Falling employment rates and falling labor earnings for those who continue to work were the key driver of increased poverty in 2019 compared to 2014. The observed changes in household labor income would have increased extreme poverty by 2.9 percentage points. While this was driven by worse employment outcomes for both men and women, three-quarters of this effect is due to the reduction in men’s employment and earnings as they are the main earner in most households in the country. Similarly, changes in male employment and, especially, male earnings explain nearly three-quarters of the increase in inequality.

Non-labor income, particularly non-contributory pensions, served to offset some of the increases in extreme poverty between 2014 and 2019. Specifically, it mitigated the increase in poverty rate by approximately 1.1 percentage points, almost large enough to offset the impact of job loss among men (which contributed 1.4 percentage points). Notably, this result was almost entirely driven by access to pensions, including the non-contributory rural pension program and the BPC, which targets urban poor. While there are legitimate concerns regarding the sustainability and equity of Brazil’s pension programs, both contributory and non-contributory, overall pensions were also associated with a reduction in inequality. While inequality increased by 1.6 Gini points overall, it would have increased by 2.5 Gini points without pension income.

<sup>10</sup> Using the methodology introduced by Azevedo, Joao Pedro & Sanfelice, Viviane & Nguyen, Minh C., 2012. "Shapley Decomposition by Components of a Welfare Aggregate," MPRA Paper 85584, University Library of Munich, Germany.

Figure 13. Decomposition by income sources, 2014 - 2019



Source: World Bank estimates based on the PNAD-C.

Note: These figures report the results of decompositions based on Azevedo, Sanfelice, and Cong Nguyen (2012). These decompose the changes in the share of the population living in poverty and in the middle class, respectively.

This analysis points to the critical role that an uneven response in the labor market has played in Brazil’s recent spike in inequality and increase in poverty. While macroeconomic factors associated with the end of the commodity boom have affected the region broadly, especially other commodity exporters in South America, Brazil’s reversal of earlier gains stands out against many of its neighbors. This in large part reflects the severity of Brazil’s domestic crisis, but why did the crisis generate such regressive shifts in employment after approximately two decades of inclusive growth? This raises the question, what is it about the structure of the labor market that left the poorest 40 percent more exposed compared to other countries in the region? Are there particular policies that can explain this vulnerability, and if so, what can be done going forward? Why was Brazil’s expansive social protection system unable to smooth the impacts of the crisis? These questions are particularly pertinent now as Brazil faces a far more severe crisis related to the Covid-19 pandemic.