### RESEARCH ARTICLE

## Poverty and Inequality Reduction in Brazil – A Parenthesis in History or the Road Ahead?

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Between 1992 and 2013, and especially since 2003, Brazil experienced an unprecedented reduction in poverty and income inequality, a process common to several Latin American countries. The objective of this study is to identify the drivers of the social changes that we observed along this period in Brazil, in comparison with other Latin American countries, and to discuss the prospects for the near future. Aspects such as the demographic transition, the reduction in earnings inequality, the country's sustained economic growth and a set of employment and social policies are relevant to understand the process of reduction in overall poverty and inequality over the last two decades in Brazil. Although demographic changes should continue to play an important role towards poverty reduction in the future, the recent economic downturn puts a question mark over future prospects, at least in the short term. Job creation has already been overtaken by increasing unemployment rates, tax revenues are falling and the resulting fiscal crisis will limit any increase in expenditures with social policies. In the short-term, the country will face the challenge of staying its course regarding the reduction of poverty and inequality in light of a much more adverse economic scenario.

Keywords: Poverty; Inequality; Poverty reduction and Brazil

#### 1. Introduction

Brazil achieved in the last two decades a remarkable reduction in poverty and income inequality. Regarding specifically income inequality, the achievements may be considered unprecedented. Since 1976, when the Gini Coefficient started to be computed in an annual basis, the country never had experienced a steady decrease in inequality as the observed from the early 2000s onwards. Decreases in poverty have been observed before, but in general were associated to one-off events (like the end of the hyperinflation in 1994), not a persistent reduction observed in the last decade.

The objective of this article is to describe the reduction of poverty and income inequality during the period between 1992 and 2013, to explore its main drivers - namely, changes in demography, earnings inequality, labour market and social protection – and to assess the prospects for the near future.

The article is structured as follows. In the next section, I briefly present some methodological definitions (namely, the poverty line, sources of data and the period of time that were here considered) and basic data on poverty and

inequality reduction. In the third section, I explore the changes in the demographic structure Brazil has been through between 1992 and the present, emphasizing their possible impacts on poverty and inequality. Section fourth addresses the reduction of earnings inequality and its main determinants. Section fifth analyses the main changes in the labour market during this two decades, notably the increase in formality and its impact on salaries and social security coverage. Section sixth covers the most relevant changes in the social protection schemes and Section seventh addresses the prospects for the near future and concludes.

## 2. Definitions and the recent trajectory of poverty and inequality in Brazil

Poverty in Brazil is traditionally measured through monetary lines, computed on gross income and without the use of any equivalence scale (Souza, 2012). The data most extensively used to compute poverty and inequality come from the National Household Survey (Pesquisa Nacional por Amostra de Domicilios - PNAD), from the Brazilian Institute of Geography and Statistics (IBGE).

During the period between 1992 and 2013, the PNAD used the same basic questionnaire and experienced only minor changes in its sample plan.1 This makes the period 1992–2013 exceptionally appropriate for an analysis such as that will be done here. Data for formal jobs (from the Annual Record of Social Information - Relação Anual de Informações Sociais – RAIS/Ministry of Labour) are also

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available for the whole of this period, although precise information by economic sector is available only from 1995. Data from the National Accounts are also available for this period and will be used, as well as projections for the population in 1992 and 2013 (computed by the IBGE).

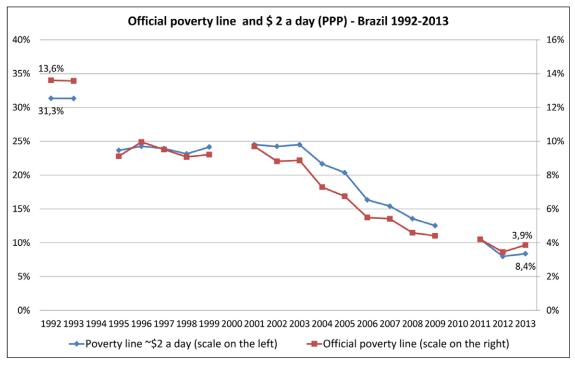
The poverty line used throughout this work is the official extreme poverty line,2 which was set at R\$ 70 per capita a month in June, 2011. Its level is close to the lower extreme poverty line of the World Bank (\$ 1.25 PPP a day). It would be possible to work with poverty lines defined in a higher level, but apparently the trajectory of extreme poverty in Brazil in the last two decades (between 1992 and 2013) tends not to be very sensitive to the level of the monetary poverty line used. In Figure 1 we depicted what happened to extreme poverty during this period according to two different poverty lines: the official extreme poverty line and a second one that is the double of it (roughly speaking, \$ 2 PPP a day). The story is fundamentally the same: A sharp decrease in extreme poverty between 1993 and 1995, most probably associated to a one-off event, the end of hyperinflation in 1994;<sup>3</sup> followed by a period of stability during the second half of the 1990s until 2003; finally followed by a steady and relatively fast decrease in extreme poverty after that.4

It is important to note the overall decline of extreme poverty to understand how it affects specific groups. Older people (for reasons that will be discussed in section 6) are in general well "protected" and present relatively lower levels of extreme poverty in Brazil. Between 1992 and 2013, extreme poverty among older people (from now on, always according to the official poverty line) went from 2.9 percent to 0.9 percent. Women, in spite of their clearly disadvantageous situation in the labour market, present almost the same extreme poverty rates as those found for the whole of the population.

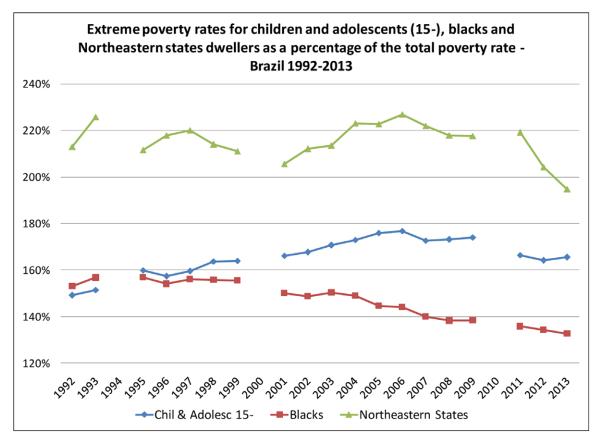
Extreme poverty in Brazil hits disproportionately blacks,<sup>5</sup> children up to 15 years old and people living in the North and North-eastern States, although with clearly different tendencies. The ratio between the poverty rate in the North-eastern States and the total poverty rate is relatively stable (on average 215 percent of the total poverty rate). The poverty rate for blacks, also as a percentage of the total poverty rate, showed a clear tendency to decrease (falling from almost 160 percent to 133 percent between 1992 and 2013). For children, however, this ratio tended to increase between 1992 and 2006 (from around 150 percent to 177 percent), falling only after that (cf. **Figure 2**).

The persistent fall of extreme poverty during the 2000s was to a large extent associated to an unprecedented decrease in income inequality (Barros *et al.*, 2010). The Gini coefficient of per capita income in Brazil between 1976 and 1999 was on average 0.60, with a relatively small variation (cf. **Figure 3**). After 2001, it started falling 0.6 percentage points a year, reaching its lowest level (0.527) in the 2013 (last available PNAD).

It is important to note that the decrease in income inequality occurred in several Latin American countries, not only in Brazil (Souza, 2012). In Argentina and Peru, for instance, the pace that the Gini coefficient fell in the 2000s was faster than in Brazil. But, more importantly, in spite of this unprecedented decrease, income inequality in Brazil remains one of the highest in the world. If the tendency observed in the last 12 years (2001–2013) persists, it would take other 23 years for the country to have the Gini coefficient the United States currently has – one of the highest among OECD members. So, while the decrease observed in the recent years is definitely good news, the challenge ahead remains of large magnitude.



**Figure 1:** Extreme poverty according to different monetary poverty lines – Brazil, 1992–2013. Source: Own calculations, based on data from the National Household Survey – PNAD/IBGE, several years.



**Figure 2:** Extreme poverty for specific groups as a percentage of the total poverty rate – Brazil, 1992–2013. Source: Own calculations, based on data from the National Household Survey – PNAD/IBGE, several years.



**Figure 3:** Gini Coefficient of per capita income – Brazil, 1976–2013. Source: Institute for Applied Economic Research – IPEA, based on data from the National Household Survey – PNAD/ IBGE, several years.

Understanding the decrease in extreme poverty and income inequality in Brazil in the recent past is relevant for two different reasons. First, it could be possible to draw relevant lessons for other developing countries that, in spite of all efforts, have not experienced a recent decrease in inequality, for instance, South Africa (Barrientos *et al.*, 2013). Second, it could be possible to suggest whether reductions in poverty and income inequality are likely to continue or not in the near future, and why.

## 3. Changes in the demographic structure

As many other developing countries, Brazil is going through a major structural demographic change. The country experienced one of the fastest transitions from a Total Fertility Rate (TFR) – that is, the average number of children per woman – of 3 to a TFR of 2, second only to Republic of Korea. It happened in just 19 years – while the average European country took almost 60 years to experience this change (Gragnolati et al., 2011). This aspect of the demographic changes the country has gone through is particularly relevant because poverty in Brazil, as we have seen, has a clear demographic component. As a consequence, it is very likely that the demographic transition affects poverty and inequality.

What happened during the period between 1992 and 2013 was not only a reduction in the proportion of children in the population, but also a decrease in their absolute number (cf. **Figure 4**). Children aged up to 14 were 33.8 percent of the population in 1992, falling to 24.1 percent in 2013. But more impressively, the number of children went down by almost 3 million (from 51.4 to 48.5 million) in a period when the total population increased almost 49 million. On the other end, the proportion and the absolute number of people aged 65 or more went up considerably (from 4.3 percent of population to 7.4 percent; from 6.6 million to 14.9 million), but, as seen in the previous section, they tend to be relatively well protected against poverty. Overall, both movements tended to reduce poverty.

Once children are the age group most affected by poverty, the reduction of their proportion in the population should have an impact per se on poverty.

Obviously, the reduction in the number of children does not mean necessarily that this decrease has been

happening among the poorest families. If this reduction is occurring elsewhere than in the poorest households, one should not expect any impact of the demographic transition on poverty. However, this is not what has been happening in the last two decades. The average number of children aged 15 or less in the 20 percent poorest households went down from 2.6 in 1992 to 1.6 in 2013, while the average number of those aged 16 or more remained fairly stable (varying from 2.5 to 2.4 during this period) (cf. **Figure 5**).

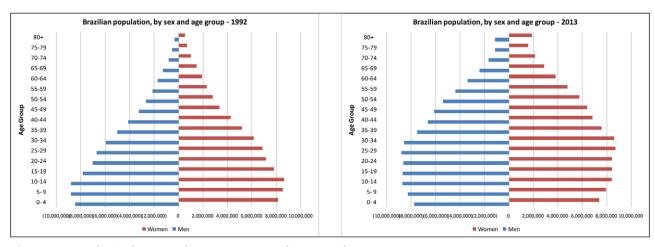
If the extreme poverty rate by year of age had remained the same as in 1992, the mere change in the demographic structure between this year and 2013 would have caused a reduction in the total extreme poverty of around 1.6 percentage point (which represents almost 17 percent of the overall 9.7 percentage point decrease). Barros et al. (2010) suggested a similar figure for the period between 2001 and 2007. According to them, demographic changes (or, more specifically, the increase in the proportion of adults in the families) would account for 20 percent of the reduction of extreme poverty during this period.

Demographic transition is frequently considered a relevant factor to account for poverty and inequality reduction observed in Latin America countries in the last decades. The World Bank (2011) suggests that the reduction in dependency ratios in the region is "more pronounced for the lowest income quintile", creating room for "increasing (...) standards of living", which should reduce poverty and inequality. As expected for such a structural transition, the role performed by the demographic transition tends to be considered "modestly equalizing" (Cornia, 2012).

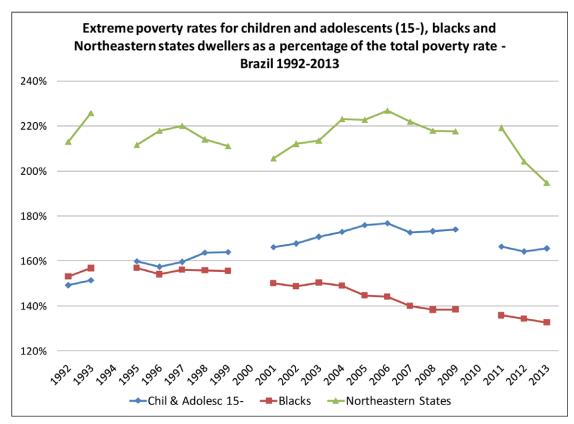
## 4. The reduction of earnings inequality

While the Gini coefficient of per capita income started falling in the beginning of the 2000s, the Gini coefficient of earnings began to decrease a few years earlier, in the second half of the 1990s (cf. **Figure 6**). As earnings represent more than 75 percent of families' income in Brazil, the reduction of earnings inequality would eventually have an impact on the per capita income inequality.

It is worth noting that educational inequality (a relevant factor to explain earnings inequality) was falling even

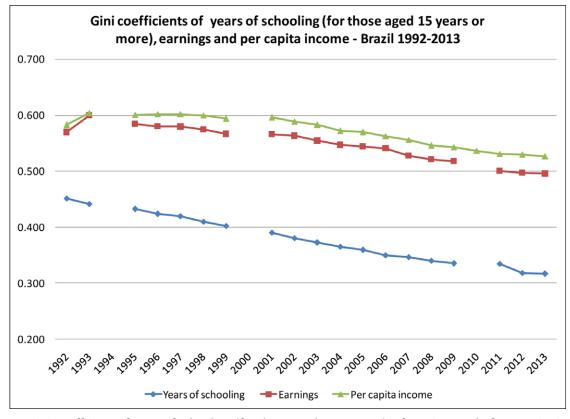


**Figure 4:** Population by sex and age group – Brazil, 1992 and 2013. Source: Brazilian Institute of Geography and Statistics – IBGE.



**Figure 5:** Average number of children (aged up to 15) and of those aged from 16 in the 20 percent poorest households Brazil, 1992–2013.

Source: Own calculations, based on data from the National Household Survey – PNAD/IBGE, several years.



**Figure 6:** Gini Coefficient of years of schooling (for those aged 15 or more), of earnings and of per capita income – Brazil, 1992–2013.

Source: Institute for Applied Economic Research – IPEA, based on data from the National Household Survey – PNAD/ IBGE, several years.

before earnings inequality started going down. For the whole of the period between 1992 and 2013, the Gini coefficient of years of schooling (for those aged 15 or more) went continuously down, from 0.452 to 0.317.

There is a virtual consensus in the literature that a larger number of better educated workers in Brazil pushed down returns to education in the labour market and reduced the wage gap between workers with different levels of education (see for instance: Barros et al., 2010; Souza, 2012; Ferreira, Firpo & Messina, 2014). In other words, changes in the structure of pay contributed to decrease earnings inequality. Barros et al. (2010) and World Bank (2011) also suggest a small but perceptible contribution of the changes in the educational composition of the labour force to reduce earnings inequality while most of the researchers suggest the opposite, that is, that the composition effect of education would have been inequality-enhancing if changes in the structure of pay were not in place. Overall, Barros et al. (2010) sustain that a better distributed education and consequential lower returns to schooling account for 50 percent of the decrease in earnings inequality and 30 percent of the decrease of the per capita income inequality between 2001 and 2007.

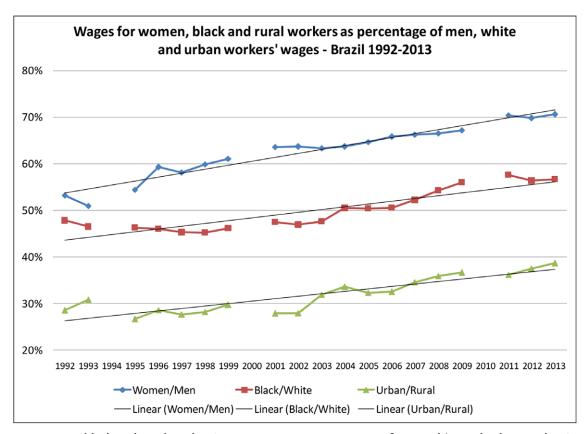
A second relevant factor to understand the falling of earnings inequality is the reduction of the wage gap between men and women, whites and blacks, as well as urban and rural and formal and informal workers (Barros *et al.*, 2010; Souza, 2012; Ferreira, Firpo & Messina, 2014).

During the whole period, women's wages increased as a proportion of men's wages (see **Figure 7**). In 1992, the average woman worker received 53 percent of the average men's wage. In 2013, they were receiving 71 percent.

The gap between white and black workers' wages, as well as between urban and rural workers' wages remained stable between 1992 and 2003 and began to decrease after that. The average black worker used to receive 48 percent of the average white worker's wage both in 1992 and in 2003. In 2013, this proportion reached 57 percent. Rural workers had on average earnings correspondent to 29 percent of earnings of urban workers in 1992 and 28 percent in 2002. In 2013, these earnings were 39 percent.

Ferreira, Firpo & Messina (2014) point to the relevance of the reduced wage gap between these groups, suggesting that "the closing gap between female and male pay, between non-whites and whites, and between rural and urban areas, was the dominant factor behind the observed trends in inequality reduction in Brazil".

Despite of that, in all these cases a large gap is still to be closed. Studies addressed to identify the term of discrimination between genders and races suggest large unexplained differences in pay between men and women, and whites and non-whites (Soares, 2000). This shows that there is still a long way to reduce discrimination and segmentation in the Brazilian labour market – but, from a positive perspective, that there is still a large space to reduce earnings inequalities in Brazil.



**Figure 7:** Women, black and rural workers' average wages as percentage of men, white and urban workers' average wages – Brazil, 1992–2013.

Source: Own calculations, based on data from the National Household Survey – PNAD/IBGE, several years.

The wage gap reduction between low and high skilled workers has been recently observed not only in Brazil, but in most of Latin America countries. Studies suggest that the composition effect of changes in education would have had an unequalizing effect, more than compensated by the reduction of returns to schooling (Lustig, Lopez-Calva & Ortiz-Juarez , 2013; Cornia, 2012). On the other hand, studies addressing gender and ethnic wage gaps in the region (for instance: Atal, Ñopo & Winder, 2009) adopt rather a cross-sectional approach, making it impossible to assess changes in the last decade. This pervasive reduction in wage gaps (between men/women; whites/blacks; formal/informal workers; rural/urban workers) seems to be well documented only in Brazil.

## 5. Labour market: Economic growth, more and better jobs and increasing salaries

In December of 1991, there were 23 million registered jobs in Brazil, according to the RAIS/Ministry of Labour. Between 1992 and 2013, on top of that number, 26 million registered jobs were created, 1.2 million per year on average.

Two large sub-periods can easily be delimited. The first one, between 1992 and 1998, a seven year period when only 1.5 million registered jobs were created (210 thousand per year on average); the second, between 1999 and

2013, a 14 year period when 24.4 million registered jobs were created (1.63 million a year on average).

The first sub-period (1992-1998) was characterized by the highest inflation rates in the Brazilian history (1992–1994)<sup>6</sup> and, after July 1994, by the consequences of a macroeconomic stabilization strategy based on the use of the exchange rate anchor, which put a lot of pressure on local producers of tradables and led to a strong adjustment in these sectors. The bright side is that the country experienced an increase in labour productivity during this period (Carvalheiro, 2003; Neves & Paiva, 2008). On the other hand, formal job creation was near zero in 1995 and 1996 and very low in the following three years (see **Figure 8**). The unemployment rate went up from 6.3 percent between 1992 and 1995 to 9.0 percent in 1998, measured by PNAD. In this scenario, as expected, salaries decreased in real terms. The average wage in the Brazilian labour market fell 17 percent in real terms between 1996 and 2004, when it stopped falling.

In the second sub-period (1999–2013), formal job creation tended to vary jointly with economic growth and a long period of job formalization took place. Specifically, between 2003 and 2010 economic growth was relatively high (4.0 percent per year on average). Only in these 8 years, 15.4 million new formal jobs were generated (an average increase of 5.5 percent per year – see **Figure 8**).

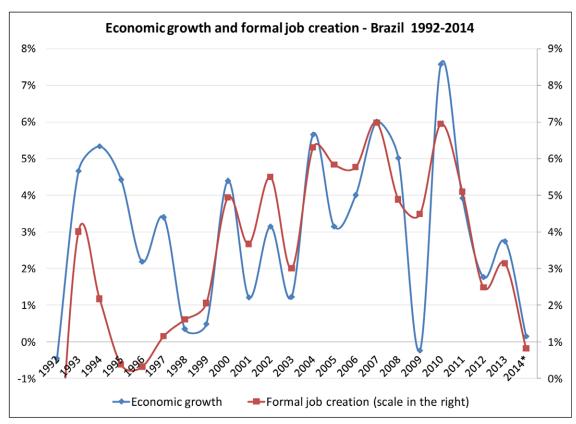


Figure 8: Economic growth and registered job creation, annual rates – Brazil, 1992–2014.

Source: National Accounts – Brazilian Institute of Geography and Statistics; Annual Record of Social Information – RAIS/Ministry of Labour, several years.

<sup>\*</sup>Data of job creation in 2014 based on the General Register of the Employed and Unemployed – CAGED/Ministry of Labour.

Where were these jobs created? RAIS data on formal job creation by economic sector are reliable only from 1995 onwards. Between 1995 and 2013, a total of 25.2 million formal jobs were created. In absolute terms, services (+9.5 million jobs), commerce (+6.2 million jobs), the public administration (+3.9 million jobs) and industry-manufacturing (+3.4 million jobs) were the economic sectors that generated the largest numbers of jobs. In relative terms, commerce (+185 percent), construction (+168 percent), industry-mining and quarrying (+140 percent) and services (+131 percent) were the economic sectors with the fastest rates of increase in formal jobs.

After a few years, three main consequences came from this long period of formal job creation.

First, unemployment went down, from 9.6 percent in 1999 to 6.3 percent in 2012 and 6.6 percent in 2013, according to data from PNAD. These last figures are very similar to the unemployment rate observed in the first half of the 1990s.

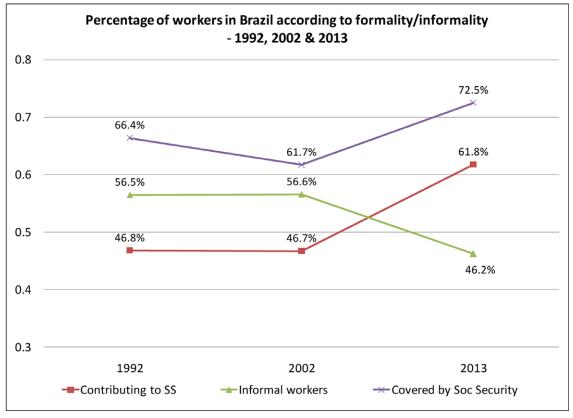
Second, salaries went considerably up. They started falling in 1997 and took quite a long period to start recovering. As we have seen, between 1996 and 2004, real wages went down by 17 percent. But between 2004 and 2013, with solid economic growth, high job creation rates and a decreasing unemployment, wages increased almost 49 percent in real terms, according to the PNAD data.

The third and most interesting consequence of this relatively long period of economic growth and job generation was a sustained improvement of the most traditional (mainly contributory) forms of social protection

(see Figure 9). Between 1992 and 2002, the percentage of workers contributing to social security remained unchanged (and below 50 percent) and the percentage of workers with informal jobs increased marginally (from 56 to 57 percent). The overall social security coverage of the working population also includes small scale farmers (who are covered by a semi-contributory scheme – Previdencia Rural) (for more details: Schwarzer, Paiva & Liberal, 2004). As the proportion (and the number) of small scale farmers in the Brazilian population decreased between 1992 and 2002 and the proportion of full contributors remained stable, the overall social security coverage among workers decreased (Paiva and Ansiliero, 2008). After 2003, however, the percentage of workers contributing to social security jumped from 47 to 62 percent and the overall social security coverage reached almost 3 out of each 4 Brazilian workers.

It is important to note that, during 2003 and 2013, the proportion (and absolute number) of workers covered by the semi-contributory scheme (*Previdencia Rural*) continued to decrease. In 2003, they were 7.7 million (17 percent of 44.8 million workers covered) and, in 2013, they were 6.2 million (only 9.7 percent of 64.0 million workers covered). In other words, the recovery in the social security coverage was fundamentally based on the contributory scheme.

Equally impressive is that the differences in social insurance coverage between men and women in the labour market almost disappeared between 1992 and 2013. While in 1992 the coverage gap between male and female



**Figure 9:** Percentage of workers in Brazil according to social protection status – Brazil, 1992, 2002 and 2013. Source: Own calculations, based on data from the National Household Survey – PNAD/IBGE, 1992, 2002 and 2013.

workers was 7.5 percentage points (69.3 percent for men and 61.8 percent for women), and in 2013 it decreased to a mere 0.3 percentage points (72.6 percent for men and 72.3 percent for women) (Brasil, 2014).

Government policies also had a relevant aspect in the recovery of wages, through the minimum wage. Except for 1994, the minimum wage was raised above inflation in the whole of the period here considered (cf. **Figure 10**). Between 1995 and 2002, the minimum wage increased on average 3.4 percent per year above inflation. Between 2003 and 2010, its level went up on average 5.9 percent per year in real terms. Finally, between 2011 and 2014, its level increased on average 2.9 percent per year. Since the second half of the 2000s, the adjustment of the minimum wage incorporated the inflation of the previous year plus the economic growth of the second previous year. This rule became a law in February 2011.

The combination between faster economic growth, job creation and poverty and inequality reduction was also observed in other countries in the region. Lustig, Lopez-Calva & Ortiz-Juarez (2011) observed that, in Argentina, the post-2002 economic recovery led to an expansion of employment and a reduction of unemployment from 20 to 8 percent in 2009. In Mexico, according to the same authors, the implementation of NAFTA was responsible for an increase in the demand for low-skill workers, reducing the wage gap between them and high-skill workers. Peru also experienced a rapid economic growth during the 2000s, but inequality fall is mostly explained

by non-labour income. What seems to be specific to the Brazilian situation is the scale of changes in the labour market (for instance, the creation of 26 million formal jobs over the last two decades).

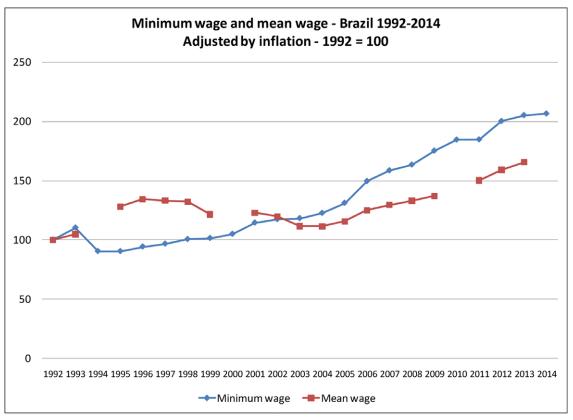
Cornia (2012) suggests that real increases in the minimum wage in the 2000s were not uncommon in the region either, but in only four countries (Argentina, Uruguay, Honduras and Nicaragua) the minimum wage increased more in real terms than in Brazil.

#### 6. Social Protection

Brazil is one of the social security pioneers in Latin America. Its first social security law dates from the early 1920s. As many other Latin America countries, Brazil relied for a long period in social insurance to deliver health services and benefits covering several social risks (see for instance: Cruz-Saco, 2002; Gasparini and Bertranou, 2005). The first semi- and non-contributory benefit schemes addressed to small scale farmers, the disabled and older people emerged only in the mid-1970s and were very limited.

After the 1988 Constitution, health care began to be provided on a universal basis. Also as a consequence of the new Constitution, in the early 1990s the schemes addressed to small scale farmers (*Previdencia Rural*) and the disabled and older people (*Beneficio de Prestacao Continuada* – BPC) were substantially improved, both in terms of benefit levels and coverage.

As a result, the country achieved a "nearly universal old age coverage" (Van Ginneken, 2007) and a relatively good



**Figure 10:** The minimum wage and the mean wage (1992 = 100) between 1992 and 2014. Source: Own calculations, based on data from the Ministry of Labour (minimum wage) and the National Household Survey – PNAD/IBGE (mean wage), several years. Values adjusted by the National Consumer Prices Index (INPC).

level of social protection among older people: 85 percent of those aged 65 or more receive either social insurance or social assistance benefits. This explains why poverty among those aged 65 years is so much lower than among the younger population.

Another important aspect of traditional social insurance and social assistance benefits is that the minimum wage is their basic level. Almost 70 percent of these benefits are levelled with the minimum wage. As a consequence, the beneficiary population benefited from the increase the minimum wage has experienced since 1994.

By the late 1990s, the Brazilian social protection model used to be relatively complex for a developing country. But the country still lacked programmes or schemes addressed to people in their working age (but without contributory capacity) and their families, especially children, who are disproportionally affected by poverty (as analysed in section 2).

To some extent, conditional cash transfers (CCTs) emerged to fill this gap. They were enacted in a few Brazilian municipalities in the mid-1990s and at the national level in Mexico, 1997, addressed initially to rural households (Cechinni and Madariaga, 2011). In Brazil, three different CCTs emerged at the national level in 2001. *Bolsa Familia* unified these previous national CCTs in 2003, reducing exclusion and eliminating overlapping.

The *Bolsa Familia* Programme expanded fast, reaching 11 million families in 2006 and almost 14 million families (50 million people, one fourth of the Brazilian population) by the end of 2012. Despite this fast expansion, its targeting improved (the concentration coefficient was -.33 in 2003 and -.53 in 2011, according to Neri and Souza, 2012). It is, by far, the most progressive transfer put into place in Brazil.<sup>8</sup>

Overall, social security and social assistance transfers represented 13.8 percent of GDP in 2013 (cf. **Table 1**). Expenditures with pensions represented 11.7 percent of GDP; passive employment policies, 0.9 percent; and social assistance benefits (*Bolsa Familia* and BPC), 1.2 percent. Expenditures with the *Bolsa Familia* Programme were

only 0.5 percent of GDP in 2013. These figures are relevant to understand the impact of transfers on inequality and on poverty.

The recent reduction of income inequality in Brazil has been largely studied (for instance: Soares *et al.*, 2006; Barros *et al.*, 2010; Souza, 2012; Hoffmann, 2013). Although both the methodology and the period analysed vary in these studies, in general authors agree that a better distribution of earnings was the most important factor to explain the reduction in the Gini coefficient of the *per capita* income. Results also vary significantly, but it would not be entirely imprecise to say that government transfers account for a relatively smaller part of the total income inequality reduction (around 30 percent), with *Bolsa Familia* accounting for half of it (around 15 percent) (Soares and Satyro, 2009).

The minimum wage, for all that was previously mentioned, had a twofold relevance: As the basic reference in the labour market and as the basic level for traditional social security and social assistance benefits. Some studies suggest that all the impact pensions have had on inequality reduction is related to the real increase of the minimum wage (see, for instance, Hoffmann, 2013). Others state that, in the recent past, increases in the minimum wage are also associated with a substantial reduction in earnings inequality (Ferreira, Firpo & Messina, 2014; Firpo and Reis, 2007).

On the other hand, there is a consensus that the *Bolsa Familia* Programme has had an impressive impact on inequality reduction when its overall cost of only 0.5 percent of GDP is taken into account. It tends also to be considered an extremely effective way to increase the income of the poorest population (Barros, 2007; Neri, 2010) and, as a consequence, to fight poverty.

To summarize, social protection in Brazil experienced significant changes in the last two decades, to some extent associated to decreasing levels of inequality and poverty: In the early 1990s, the extension of semi- and non-contributory schemes addressed to small scale farmers, older

	in R\$ billion	% of GDP
Soc. Security benefits – civil servants (A)	209.5	4.3%
Soc. Security benefits – private sector (B)	357.0	7.4%
Unemployment Insurance (C)	31.3	0.6%
Abono Salarial (D)	13.5	0.3%
Social Assistance Benefits (E)	31.8	0.7%
Bolsa Familia (F)	24.0	0.5%
Total (A+B+C+D+E+F)	667.1	13.8%
Social Security benefits (A+B)	566.5	11.7%
Passive employment policies (C+D)	44.8	0.9%
Social Security and Employment policies (A+B+C+D)	611.3	12.6%
Social Assistance (E+F)	55.8	1.2%
GDP	4,844.8	100%

**Table 1:** Social Protection Expenditures as a percentage of GDP – Brazil 2013. Sources: Brazil/Ministry of Planning and the Brazilian Institute of Geography and Statistics/IBGE.

people and the disabled; from 1994 onwards (and specially from 2003 onwards), a steady real increase in the level of the minimum wage (that is, the basic level of traditional social security and social assistance benefits); and in the early 2000s, the unification of fragmented CCTs into the *Bolsa Familia* Programme. Although relevant, these changes are not considered the leading factor to explain the decrease in inequality and poverty.

Also here, the Brazilian case is not an exception in Latin America, a region where social protection was historically based on contributory schemes. Conditional Cash Transfers spread all over the region since the early 2000s. In at least a few cases (for instance Peru), non-labour income was the main driver of inequality reduction (Lustig, Lopez-Calva & Ortiz-Juarez, 2011). But in most, there is a combination of factors responding for poverty and inequality reduction, which includes new social protection arrangements.

# 7. Prospects for the near future and concluding remarks

Between 1992 and 2013, the period analysed in this work, and especially since 2003, poverty and income inequality decreased steadily in Brazil. Regarding specifically income inequality, this decrease was unprecedented since the Gini coefficient started being computed in an annual basis in 1976. But what are the prospects for the near future?

It was possible to identify a few clear drivers of the social changes that we observed in the last two decades. The prospects for the near future will depend, to some extent at least, on what will happen to these drivers.

The demographic transition has offered the structural landscape where poverty and inequality reduction took place. In the period here considered, the proportion of children up to 14 years old – an age group highly affected by poverty – was reduced by almost 10 percentage points (roughly from 34 to 24 percent of the Brazilian population) while the proportion of people aged 65 or more – an age group very well protected against poverty – increased 3 percentage points (from 4.3 percent of population to 7.4 percent). These changes would have an impact on poverty reduction *per se*.

Demography will continue to play a relevant role towards poverty reduction in the future. The proportion of those aged up to 14 will fall from the current 24 percent to 19 percent in 2025 and 15 percent in 2040. But, despite the fact that demographic transition has been much faster in Brazil than was in the average developed country, its impact tends to be relatively small and perceived only in the mid- and long-term.

A second driver was the reduction in earnings inequality, which started in the second half of the 1990s, before the overall income inequality began falling. Among the most important factors to understand this falling earnings inequality are the improvement in the distribution of schooling and a reduced wage gap between different groups of workers (men and women; whites and non-whites; rural and urban; formal and informal).

It seems unclear whether education will continue to perform an inequality-decreasing role or not. The proportion of workers with higher levels of education will certainly continue to increase. Returns, by their turn, could continue to decrease. Clementi and Schettino (2015) however sustain that, in a situation of poor economic growth (the most likely economic scenario for the next years), the composition effect of education should prevail over the structure of pay effect. As a consequence, educational changes could start to have an inequality-enhancing impact on income inequality. But this is uncertain: In the near future the country can reach a point where the composition effect of educational changes is equalizing.

To say how wage gaps between different groups of workers will behave seems to be even trickier. In the next years, unemployment tends to go up and wages will struggle. This definitely does not look the best environment to fight discrimination or to reduce segmentation in the labour market. But we must take into account that, if there are relevant institutional components that explain, at least partially, the reduction in the wage gaps (for instance, labour inspection or the minimum wage), these gaps should continue to be reduced in the near future.

A third driver was the sustained economic growth (especially after 2003) and its positive impacts on job creation and wages. A large number of formal jobs were created and salaries increased considerably in real terms after 2004. Moreover, the minimum wage (which has a twofold role in the Brazilian economy, as the basic reference in the labour market and the basic level for social insurance and social assistance benefits) increased considerably more than the inflation and also the average earnings.

This situation has changed already. Economic growth in 2014 was very low (0.14 percent) and formal job creation (with an increase of only 0.88 percent) was the worst since 1996. Prospects for 2015 and 2016 are not exactly promising. The economy has shrunk 3.8 percent in 2015 and an extra 3.4 percent fall in 2016 is expected according to projections by the market. Data from the Monthly Labour Survey/IBGE suggest that earnings in December 2015 are down by 6.7 percent compared to December 2014 and that the unemployment rate of January 2016 was the highest for this month since 2009.

In a situation like that, increasing the minimum wage above inflation could be considered a policy option to continue do compress salaries, keeping earnings inequality and poverty going down. But there may be two problems. First, this result is all but certain. Compliance with the minimum wage rule may decrease and a larger proportion of the workforce receiving less than a minimum wage can lead to higher earnings inequality. This phenomenon was already noticed by Ferreira Firpo & Messina (2014) for the period 1995–2003 also characterized by relatively poor levels of economic growth and formal job creation. Second, the prevalent rule is that adjustments in the minimum wage should incorporate the inflation of the previous year plus the economic growth of the second previous year. Between 2016 and 2018, as a consequence, the minimum wage should not receive any increase above inflation (as economic growth in 2014 was close to zero and in 2015 and 2016 will be negative).

There is also a relevant question of how much fiscal space is available for any measure that increases public expenditures. As the minimum wage is not only a

	1992-1994	1995-1998	1999-2002	2003-2006	2007-2010	2011-2014
Brazil	3.18	2.59	2.31	3.51	4.59	2.14
LAC	3.99	3.20	1.21	4.64	3.61	3.06
World	2.61	3.49	3.48	4.91	3.56	3.60

 Table 2: Economic growth in Brazil, LAC countries and the World.

Source: WEO (Oct. 2015), IMF.

reference for the labour market, but also the basic level for social security benefits, increases have a strong impact on public expenditures. With a fiscal deficit of 6.7 percent of GDP in 2014<sup>10</sup> and measures in place to recover public finances, it looks unlikely that there would be much fiscal space to increase expenditures.

This obviously affects most possible measures addressed to boost the fourth driver for poverty and inequality reduction in the last two decades, namely the redesign and the creation of social protection programmes. The overall expenditure with pensions and social assistance benefits in Brazil (almost 12 percent of GDP) can already be considered very high for such a demographically young country.

Bolsa Familia, on its turn, could be considered a relatively affordable alternative to continue addressing poverty and inequality using social protection programmes. It is very well targeted and the most efficient way to fight poverty and income inequality when it comes to transfers (Barros, 2007; Neri, 2010); reaches a large share of the Brazilian population (25 percent); and costs only 0.5 percent of GDP.

Overall, there seems to be drivers pushing in the direction of further poverty and inequality reduction, like demography, educational improvements, *Bolsa Familia* as an affordable policy alternative to fight poverty). On the other hand, other drivers, mainly related to the recent poor economic performance (such as formal job creation), can push poverty and inequality up. One can even say that the pace that poverty was falling has slowed down already: Extreme poverty did not fall between 2012 and 2013 and income inequality (measured by the Ginicoefficient) fell in a much slower pace between 2011 and 2013 (-0.2 percentage points per year, compared to an average of -0.65 percentage points per year in the period 2001–2011).

The variables here examined do not exhaust the range of factors that help to explain poverty and inequality reduction in Brazil in the last two decades. I have not considered here, for instance, the strong structural political tendencies that took place after the democratization in Brazil and that were consolidated in the new Constitution of 1988 in the form of a "renewed social contract" (Barrientos *et al.*, 2013). These tendencies certainly had an underlying role for the development of social policies in the last two decades and, to some extent at least, are expected to continue to push in the direction of further reductions on poverty and inequality in the mid and long-run.

But the major work done in Brazil on the development of its social protection system since the democratization does not account for all the poverty and inequality reduction observed in the last two decades. It explains a significant part of it – but certainly not the largest part of it, which is accounted for by what happened in the labour

market (more jobs, higher salaries, especially the minimum wage) and obviously in the economy.

The fact is that the social contract underpinning the developments in the Brazilian social protection system looks so far much stronger that the contract holding the long-term economic foundations in the country. The Law of Fiscal Responsibility, its most important pillar, was approved only in 2000<sup>11</sup> and has been much more politically disputed than the strong arrangement behind social policies.

This could help to explain why the Brazilian economy has performed poorly in the last two decades. Between 2003 and 2010, economic growth in the country was relatively high (average of 4.0 percent per year), but only between 2007 and 2010 the country experienced an economic growth above the world average. However, these years were an exception. Between 1995 and 2002, as well as from 2011 onwards, Brazil has lagged behind the world economy and presented mediocre economic outcomes (see **Table 2**). In most of the period here considered, the country also performed worse in terms of economic growth than the average for the Latin America and Caribbean countries. The question whether what Brazil experienced in the 2000s was a parenthesis in history or the road ahead remains, to a large extent, unanswered.

Recovering the solid economic foundations that permitted the fast economic growth observed after the 2000s seems to be the mid-term most important task, which will reinforce the importance of the responsible conduction of the economy and put in place once again the proper conditions for economic growth. In the short-term, the country will face the challenge of keeping the trajectory of reducing poverty and inequality in a much more adverse economic scenario.

#### Notes

- <sup>1</sup> Rural areas in North Region States started to be covered by PNAD only in 2004. The exception was the State of Tocantins, whose rural area was surveyed before this year. From 2011 onwards, an improved sample of rural areas in this Region was adopted. Here, for comparison purposes, all data from 2004 onwards do not take into account rural areas in the North Region. Changes in the definition of urban/rural areas also occurred after the Census of 2000 and 2010, following municipalities' legislations.
- <sup>2</sup> The official extreme poverty line was set by the Decree n° 7492, from the 2nd of June, 2011. In this article, it was adjusted by the National Consumer Prices Index (INPC), produced by the Brazilian Institute of Geography and Statistics (IBGE).

- <sup>3</sup> The PNAD is not conducted in years in which the country conducts a Census (which occurred in 2000 and 2010). Exceptionally, data were not collected in 1994.
- <sup>4</sup> Extreme poverty, according to the official poverty line, fell from 13.6 percent in 1992 to 3.9 percent in 2013 (a decrease of 9.7 percentage points or 72 percent), while according to the higher poverty line depicted in Figure one, extreme poverty decreased from 31.3 percent to 8.4% in the same period (23 percentage points or 73 percent).
- <sup>5</sup> In this work, the word "blacks" refers to two ethnic categories in Pnad/IBGE: "black" and "mixed". There is evidence that these two categories share relatively similar conditions in the labour market (Carvalho & Neri, 2000), which explains why these categories have been collapsed in studies on the Brazilian labour market.
- <sup>6</sup> Between January and June 1994, the accumulated inflation was 759 percent, according to the National Consumer Prices Index/IBGE.
- <sup>7</sup> Law n° 12382, from February 2011.
- <sup>8</sup> Despite being a targeted programme, Bolsa Familia is certainly not narrowly targeted. This explains why its coefficient of concentration is low (-.53), but not radically low as some narrowly targeted social assistance programmes in Northern Europe, that present coefficients of concentration lower than -.6 (Marx, Salanauskaite & Verbist, 2013).
- <sup>9</sup> The Brazilian Central Bank, Focus Report of the Market, 26th of February, 2016. Available in http://www.bcb.gov.br/pec/GCI/PORT/readout/R20160226.pdf.
- <sup>10</sup> The Brazilian Central Bank, available in http://www.bcb.gov.br/htms/infecon/notas.asp?idioma=p.
- <sup>11</sup> Complementary Law n° 101, from May 2000.
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## **Competing Interests**

LHP served as the head of the Bolsa Familia Programme between January 2012 and February 2015.

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