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**The Evolution of Inequality in Latin America in the 21<sup>st</sup> Century: What are the patterns, drivers and causes?**

Francesco Bogliacino and Daniel Rojas Lozano

**Abstract**

*The paper analyses the evolution of inequality for the largest economies of the Latin American region in the 21<sup>st</sup> century, with separate consideration of income and wealth. The drivers of changes in inequality and possible underlying causes are examined, including the role of the new wave of leftist governments. The evidence reveals that income inequality decreased, though wealth inequality displayed a much less homogeneous pattern. Statistically, the decrease in inequality is associated with labour market changes, and especially with State redistribution through subsidies. Wealth inequality is mainly correlated with the change in the share of financial wealth. A possible causal interpretation is that the symbolic victories of the new left may have inflated social pressures, mostly in the presence of rents generated by the commodity boom.*

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# The Evolution of Inequality in Latin America in the 21<sup>st</sup> Century: What are the patterns, drivers and causes?\*

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## 1. Introduction

Unequal societies display less social cohesion (Wilkinson and Pickett, 2009) and are more prone to capture of the political system by the elite (Stiglitz, 2012). The study of inequality has recently regained a key role in economics, a phenomenon reinforced by new systematic data-collection efforts (Milanovic, 2005; 1998; Piketty, 2014; Galbraith, 2009, among others).

Within this context, Latin America presents a very interesting case: on the one hand, it represents the world's most unequal region; on the other, during the 21<sup>st</sup> century, a significant and relatively uniform reduction in income inequality has occurred. This stylised fact has not gone unnoticed in the literature (Alvaredo and Gasparini, 2015; Gasparini and Lustig, 2011; Cornia, 2010; Gasparini et al., 2009; Gasparini, 2005).

The 2000s, the decade in which these changes occurred, saw left-wing governments occupy the centre of the political stage; this placed inequality as a key element in the political agenda. As a result, it becomes crucial to ask whether the policies set by these governments played a causal role in the observed inequality reduction. This is the primary aim of the present work.

Another motivation for this research is that economic policy in the region has always followed certain phases of relatively homogeneous formulae (compared to other countries), as in the case of state industrialisation or market-oriented reforms after the lost decade of the 1980s. Historically, these paradigms tend to characterise the whole region, with some heterogeneity. However, experience shows that, in many cases, such paradigms were imposed by objective elements (e.g. because of a wide range of macroeconomic shocks). They started more as a set of pragmatic responses than as a real plan designed by the elite (Bértola and Ocampo, 2012), and this initial phase of implementation is usually followed by learning,

theorisation and consolidation, as was the case for the inward development theory (Sunkel, 1991) or the Washington consensus (Williamson, 1990). Thus we attempt to characterise the policies of the first fifteen years of the 21<sup>st</sup> century to determine if they respond to a theoretical or political paradigm and/or if they are driven by a logic of material interests in the economic structure.

This article expands on the existing body of knowledge in several ways. Firstly, we characterise both income and wealth inequality. Secondly, we separately examine the first and the second decades of the 21<sup>st</sup> century, because the latter is associated with both political and economic changes. Thirdly, we engage in an in-depth analysis of left-wing governments in the region. Fourthly, following Bogliacino and Maestri (2014), we discuss proximate determinants and causal hypotheses of the observed patterns.

The rest of the article is structured as follows: Section 2 presents a characterisation of the new Latin American left-wing parties; Section 3 describes the main stylised facts regarding inequality; Section 4 discusses the drivers of changes in income and wealth inequality; Section 5 analyses potential causal explanations; Section 6 presents some conclusions.

## **2. The New Latin American Left**

The beginning of the 21<sup>st</sup> century was marked by a series of left-wing electoral triumphs—at the municipal and national levels—in several Latin American countries. This period has been deemed the left turn in Latin America (Panizza, 2005; Castañeda, 2006; Schamis, 2006; Arditi, 2012). During these years, Argentina, Chile, Bolivia, Ecuador, Peru, Uruguay and Venezuela have witnessed the establishment of left-wing governments.

This turn can be considered a response to new political and economic scenarios. With regard to the political or geopolitical dimension, it is necessary to look to the dissolution of the Soviet Union, which marked the end of the political stigmatisation of left-wing parties, insofar as positioning in the political spectrum no longer implied a positioning for or against the United States (Castañeda, 2006). In other words, the fall of the Soviet Union broadened the margins of manoeuvre for the region's regimes. With regard to the economic dimension, this turn can be partly ascribed to the failure of the policies of the Washington Consensus (Panizza, 2005; Arditi, 2012). In fact, the leftist discourse of this period is

characterised by opposition to neoliberalism, whose political and economic principles define the measures promoted by the Washington Consensus (Panizza, 2005).

The new Latin American left shares certain characteristics inherited from its liberal-republican, populist and democratic ideological roots, which gravitate towards the principles of social justice and equality (Panizza, 2005). However, the varying trajectories followed by left-wing countries have been classified according to different historical and political taxonomies, whereas more homogeneity is considered to occur within the economic agenda.

From a historical point of view, Castañeda (2006) claims the existence of two lefts in the region. The first is derived from the Bolshevik Revolution and the Communist International, but this left is currently modern, reformist and internationalist. The second is populist, traditionalist and inward-oriented and reinvigorates elements of Latin American populism. Castañeda places Chile, Uruguay and Brazil in the first group and Venezuela, Argentina and Bolivia in the second.

From a political science point of view, Schamis (2006) builds on the classification proposed by Castañeda (2006) and adds further qualifications in terms of each country's party system. The author argues that party systems can be classified into two groups: i) institutionalised or functioning; ii) disarticulated or collapsed. Countries such as Chile, Brazil and Uruguay would be classified in the former group, whereas Argentina and Peru would be classified in the latter. In the disarticulated or collapsed group, the political process is determined by the business cycle, meaning that under periods of economic upswing, the prime minister (or the executive branch in general) manages to accumulate power and establish a particular institutional routine. As for the second group, Schamis proposes the category of the "petro-left" to refer to countries such as Venezuela and Bolivia, i.e. oil- or gas-exporting countries which maintain consensus through budgetary control and in which authority is characterised as arbitrary, unstable and directly linked to the availability of economic resources.

From an economic point of view, taxonomies are difficult to establish, for countries of the new left follow similar policies. In a nutshell, these countries accept capitalism as the only viable mode of production (Puyana, 2009), but the state performs an expanding role in terms of market regulation and resource redistribution (Arditi, 2012)

Beyond this common economic framework, although the failure of the Washington Consensus pushed these countries to expand the role of the state (Arditi, 2012), the need for larger political coalitions to attain and maintain power, binding external constraint and financial markets' disciplinary role (which can punish radical discourse through capital flights) may have moderated (relatively) the economic reforms implemented (Panizza, 2005)—with the exception of Venezuela and Argentina. As a result of the balance of power, the economic policies of the new left have been characterised by a complex compromise between tension and convergence between neoliberal and critical reforms, giving rise to the implementation of prudent fiscal policy and measures oriented towards controlling inflation. The market has been recognised as a suitable mechanism for determining prices, the inefficiency of certain state interventions has been acknowledged and economic openness and regional integration have remained a fundamental axis of economic policy (Panizza, 2005). In fact, Cornia (2011) finds that the economic model of these governments belongs to the liberal paradigm, except for Bolivia and Venezuela; the latter countries are labelled “radical-populist” largely due to large-scale redistributive efforts.

### **3. Inequality: Stylised facts**

The Latin American region is characterised by very large levels of inequality in many socio-economic indicators.

In Figure 1, we report the Gini coefficient of household net equivalised income for a group of Latin American countries and a selection of developed countries for the year 2000. The countries included were<sup>1</sup> the most important regional economies and most of the OECD countries for which data were available.

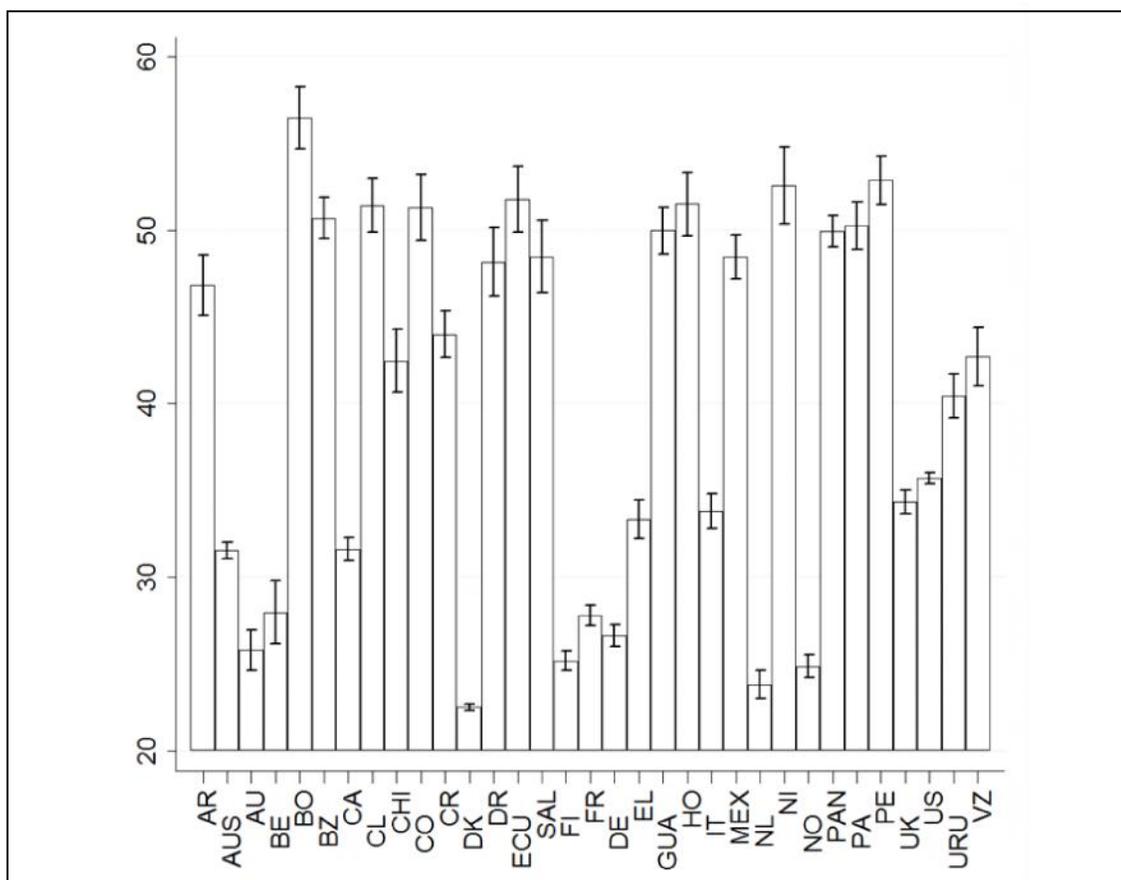
Some clarifications are in order. First, the data source was SWIID version 5.1 (Solt, 2016); this data source included a methodology for data imputation and harmonisation. As a result, these measurements have a confidence interval. In Figure 1, we plot the confidence interval at 95%.

Second, the Gini coefficient is a number between zero and one (we expressed it in percentage points), which can be interpreted as an indication of incomedistribution (in)equality, between the extremes of perfect equality (zero) and maximum inequality (100%). The indicator satisfies certain undesirable properties, e.g. aggregate inequality is not the sum of the inequalities of the different subgroups, and the Gini assumes

implicit distributive weighting, i.e. transferring a dollar to a person one quartile from the bottom has three times the value as the same dollar transferred to a person one quartile from the top (Atkinson, 2015). However, this measure is the most commonly used; therefore, it favours comparability the most.

Third, the definition of income utilised includes all sources of primary income and state intervention through taxes and subsidies (excluding imputed rents and in-kind benefits, which may be important equalizers in some countries; Marx and Verbist, 2014). In calculating the per capita level, the definition corrects for the scale economies inside the household through an equivalence scale which allows for the comparison of adults and children (in this case, the scale is the square root of household size).

**Figure 1. Gini Coefficient of Household Net Equivalised Income with Confidence Interval: Year 2000**



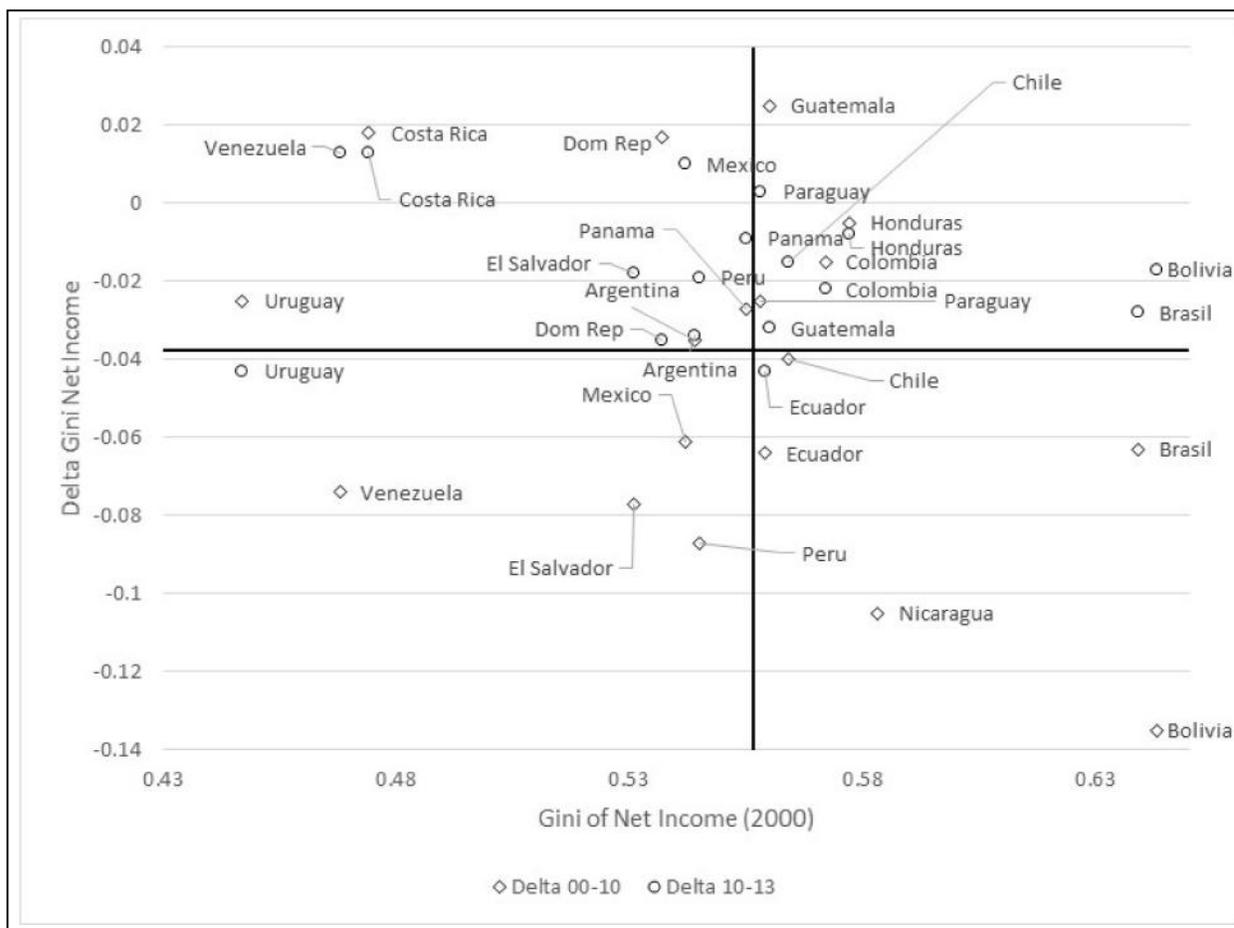
Note: The confidence intervals at 95% are shown.

Source: Elaboration by the authors based on SWIID 5.1 data.

The figure confirms that the region is very unequal. All Latin American countries reach levels of the Gini coefficient that are statistically larger than those in developed countries, not only with respect to the egalitarian Nordic (such as Finland, Denmark, Netherlands and Norway) or Central European (Germany, France, Belgium) countries, where income tends to be more evenly distributed, but also with respect to the Mediterranean (Italy and Greece) and Anglo-Saxon (Australia, the United Kingdom, the United States) countries, where there tends to be more inequality relative to other OECD members. In comparative terms, Latin American countries have a level of inequality around one and a half to two times larger than that of high-income countries. This stylised fact is robust to country selection (Alvaredo and Gasparini, 2015; Gasparini et al. 2009).

However, if we observe the evolution of inequality in the first decade of the 21<sup>st</sup> century, there is a general tendency towards reduction, which is in sharp contrast to the situation for the rest of the world (OECD, 2012; Bogliacino and Maestri, 2014; Alvaredo and Gasparini, 2015). In Figure 2, we plot CEPAL data for percapita income inequality. These coefficients were calculated from household surveys, with correction for under-declaration or no response. In the figure, we show the initial level in 2000 as well as the 2000–2010 and 2010–2013 variations. The distinction between these two periods is important, for the decade of 2000–2010 is characterised by global growth, whereas the 2010–2013 period encompasses the so-called Great Recession (Krugman, 2012) in the wake of the financial crisis of the United States and the Euro Area, and the stabilisation and subsequent decline of commodities prices. In the figure, we plot the median of the distribution of the Gini coefficient of income in 2000 and the median of the distribution of the change between 2000 and 2010. The use of the median values as a threshold allows us to inductively group the countries into four clusters according to the level of inequality (at the regional level) and the extent of the variation.

**Figure 2. Gini Coefficient of Income in the Year 2000 and Variation between 2000–2010 and 2010–2013 for a Sample of Countries in the Region**



Note: The black lines indicate the median values for the 2000 Gini of income and 2000–2010 variation of the Gini of income. The data for Argentina refer to urban population. The same holds for the 2000 data for Uruguay. The 2000 data for Brazil refers to 2001, for Colombia to 1999, for Honduras to 2001, for Guatemala to 1998 and for the Dominican Republic to 2002. The 2010 data for Bolivia, Brazil and Chile refer to 2009, for Guatemala to 2006 and for Mexico to 2008. The last data point for Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Paraguay, Peru, the Dominican Republic and Uruguay is 2014; for Argentina, it is 2012.

Source: Elaboration by the authors based on data from CEPAL-STAT.

Considering the variation between 2000 and 2010, the only countries in which inequality grew were Costa Rica, the Dominican Republic and Guatemala. Of the three, only Guatemala started from a level of inequality above the median. However, the conclusion for Guatemala is not provided given that data availability meant the figures were computed over the period 1998–2006.

As mentioned, we can classify the countries in four groups according to the median split:

1. Countries with high initial inequality and low reduction: Guatemala, Colombia, Paraguay and Honduras;
2. Countries with high initial inequality with large reduction: Brazil, Nicaragua, Bolivia, Ecuador and Chile;
3. Countries with low initial inequality and low reduction: Costa Rica, Panama, Argentina, Uruguay and the Dominican Republic;
4. Countries with low inequality and large reduction: Mexico, Venezuela, El Salvador and Peru.

It is important to note that the groups emerging through these median splits do not reproduce the taxonomies of governments proposed by the literature and discussed in Section 2. For example, in Group 1, there are countries that did not have left-wing governments in the study period, such as Colombia or Honduras,<sup>2</sup> or witnessed short-lived leftist governments, such as Paraguay or Guatemala. However, the supposedly populist government of Bolivia is matched with the moderate left of Brazil and Chile, whereas the “petro-government” of Venezuela is matched with that of Mexico (right wing) and Peru (a country that has followed the orthodoxy of financial institutions and where the left was only in power at the end of the first decade of the 21<sup>st</sup> century).

If we consider post-2010 change, there is a subset of countries that changed their inequality trend in the aftermath of the world crisis. All the countries of Group 4 weakened the size of the reduction, moving towards Group 3. For its part, Uruguay displayed an opposing tendency, strengthening its reduction. Of the countries in Group 2, there was a tendency to move towards Group 1, with the exception of Ecuador, for this Andean nation softened the intensity of the variation and yet maintained a strong egalitarian tendency.

It is apparent that the response to the global crisis cannot be easily predicted by the political orientation of the government, as shown by the very similar quantitative variation in Venezuela, Mexico and Costa Rica on the one hand, or in Colombia, Bolivia and Brazil on the other. In this context, the cases of Argentina, Costa Rica, Colombia, and Honduras are noteworthy insofar as they exhibited little change between pre- and post-2010.

In total, over the period 2000–2015, the correlation between the share of years under left-wing governments and the Gini variation was negative and close to 50% (Pearson's  $\rho = -0.457$ ).

To obtain a more detailed picture, we cannot limit ourselves to income (the flow of resources at household disposal during the year); rather, we also must consider the accumulation of wealth, which constitutes the stock of net assets of households at a certain point in time. Wealth is important because it allows households to cope with negative shocks and maintain their standard of living.

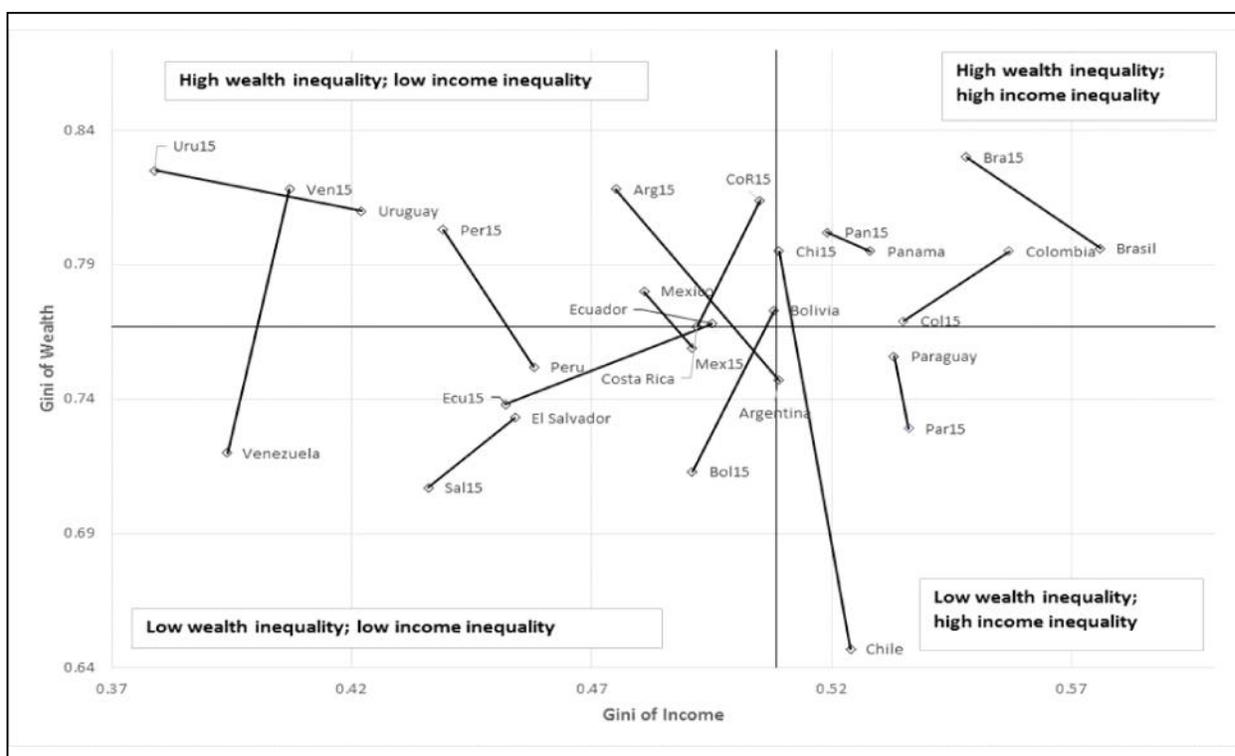
Although data on the distribution of income are sufficiently large, with increasing levels of comparability both across countries and over the years (the data of the Luxembourg Income Studies, the harmonised database of the OECD, the SWIID of Solt, 2016), the data sources for the distribution of wealth are more limited (Maestri et al., 2014). Furthermore, there are a series of methodological problems that merit attention (Maestri et al., 2014; Bogliacino and Maestri, 2016). In many cases, these data are incomplete because liabilities are recorded but corresponding assets are not, as is the case of durable consumption goods or in the case of human capital and the debt accrued to access higher education. In addition, public pension entitlements are not computed. Finally, measurement problems exist, as net wealth can be negative, causing the Gini coefficient not to be bounded by the unity or not making it computable in certain cases. Moreover, equivalence scales are seldom used, thereby reducing comparability. To wit, comparative studies on wealth are scarce (OECD, 2008; Davies, 2009; Maestri et al., 2014). It is also necessary to clarify that even though the distinction between gross and net income refers to pre- and post-government intervention, when it comes to wealth, the distinction between gross and net refers to total assets and assets net of liabilities, respectively.

Wealth data usually come from three sources: survey data which tend to be biased because wealth is extremely concentrated and the richest are complicated to sample and interview; tax data which are especially suited for studying the top wealth shares, as in Piketty's approach (Atkinson et al. 2011; Piketty, 2014); and data computed through regression and imputation. The last one allows for comparability, but at the price of less robustness. To get a picture of the region, we relied on a source based on the estimated distribution of wealth through the regression and imputation technique (Shorrocks et al. 2010; 2015). In light of data availability, we used 2010 and 2015 as the two temporal points. According to Shorrocks et al. (2010; 2015), the data for most of the countries are of poor quality, with some exceptions: Colombia and

Mexico’s data are classified as satisfactory; Chile’s as fair; Brazil’s as fair in 2015 yet poor in 2010; and Paraguay and Venezuela’s as poor.

Following the methodology of Bogliacino and Maestri (2016), we plot the data for the Gini coefficient of income and wealth in 2010 using a median split to identify four groups (Figure 3) and then show the value for the end of the period.<sup>3</sup>

**Figure 3. Change of the Gini Coefficient of Income and Wealth for Selected Countries: Years 2010–2015**



Note: The black lines indicate the median values for the year 2010. The data for Argentina refer to the urban population. The 2010 data for Bolivia, Brazil and Chile refer to 2009, and for Mexico to 2008. The final datapoint for Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Paraguay, Peru and Uruguay is 2014. For Argentina, it is 2012. The median wealth is calculated including Nicaragua. But since we have no income data after 2009 for Nicaragua, it was not included in the chart.

Source: Elaboration by the authors based on income data from CEPAL-STAT and wealth data from Shorrocks et al. (2010; 2015).

Using the median split, we identified the following groups:

1. Countries with low income and low wealth inequality: Costa Rica, El Salvador, Peru and Venezuela;
2. Countries with high income inequality and low wealth inequality: Argentina, Chile and Paraguay;
3. Countries with high income and high wealth inequality: Colombia, Brazil and Panama;
4. Countries with low income inequality and high wealth inequality: Mexico, Uruguay, Ecuador and Bolivia.

It is striking that the group with low income and low wealth inequality (Group 1) includes both Venezuela and Peru, for the two countries belong to opposite poles of the political spectrum.<sup>4</sup> Equally striking is that the group with low income and high wealth inequality (Group 4) includes the populist Ecuador and Bolivia, the conservative Mexico and the progressive Uruguay.

Maestri et al. (2014) claimed that the differences in wealth inequality can be explained by structural differences, whereas the trend can be explained by national histories. Given that we are dealing with the same region, perhaps the structural characteristics determine the relatively high level of inequality but not the cross-country (within-region) differences, which are probably due to national idiosyncrasies.

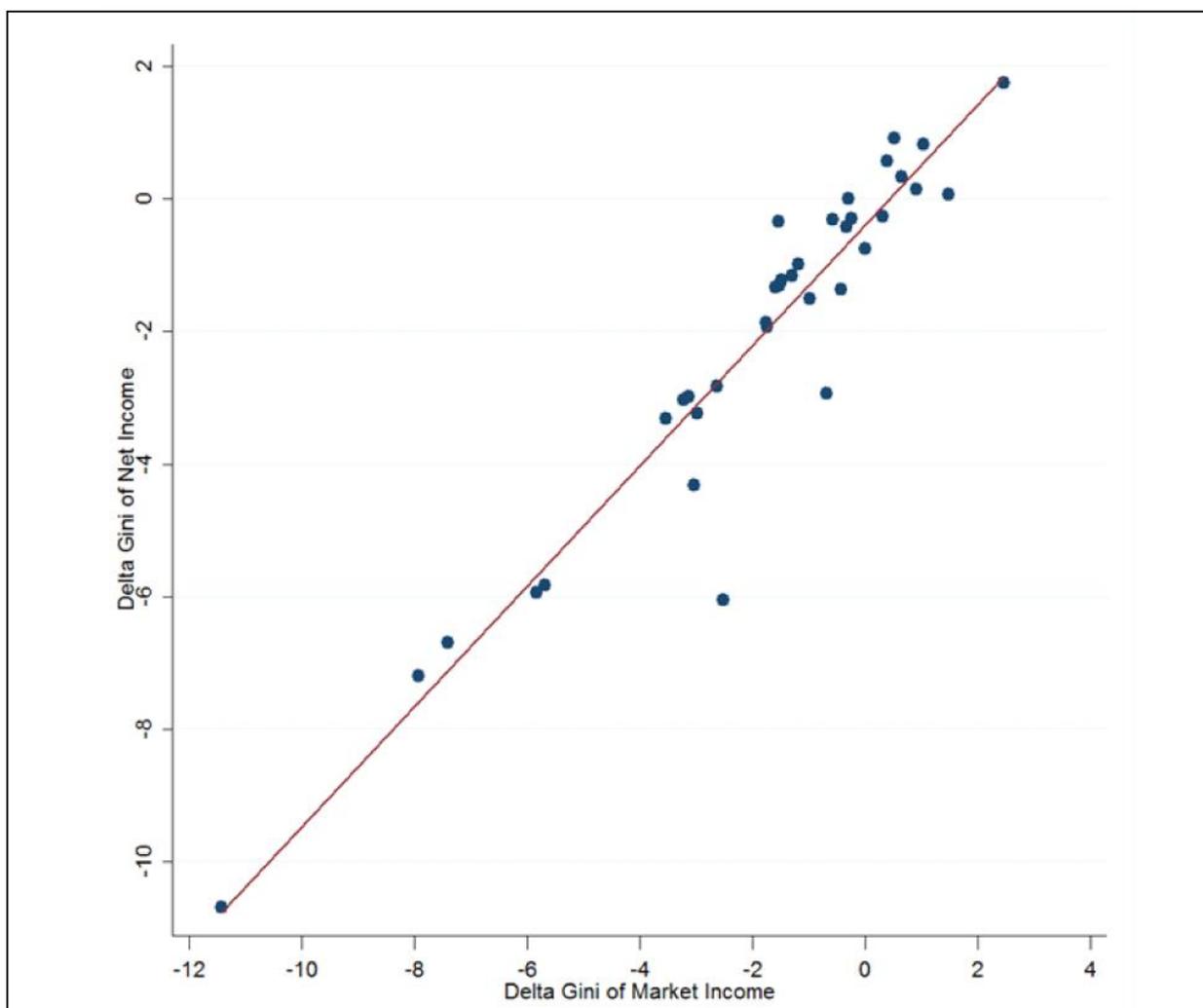
Between 2010 and 2015, the following countries shifted groups: Costa Rica, Venezuela and Peru became classified as low income and high wealth inequality (Group 4); Argentina moved towards the low income inequality but high wealth inequality group (Group 4); Chile entered the high income and wealth inequality club (Group 3); Mexico, Bolivia and Ecuador became countries with low inequality in income and wealth (Group 1). Colombia reduced both inequalities yet stayed in the most unequal group (Group 3).

In summary, our diagnosis is that the region is characterised by sizeable income inequality, although it reduced the Gini coefficient during the first decade of the 21<sup>st</sup> century. The rate of reduction has generally slowed in the aftermath of the global crisis, with some exceptions. Wealth is more unevenly distributed than income as usual (Maestri et al. 2014), and between 2010 and 2015, of the fourteen countries considered, six have reduced the Gini coefficient of wealth, whereas eight have increased it. As a result of these disparate findings and regional diversity, it is difficult to identify patterns permitting a regional taxonomy.

#### 4. Proximate Drivers

Given the composition of household income over which the Gini is calculated, we may investigate whether it was public intervention or “market” factors, ex ante, which led to reduced inequality. In Figure 4, we plot the SWIID data for market income and net income, which tend to be highly correlated. This confirms Atkinson’s claim that both factors play a role in determining the change in inequality for Latin America.

**Figure 4. Variation of the Gini Coefficient of Market Income and Net Income for the Region: Years 2000–2010 and 2010–2013**



Source: Elaboration by the authors based on data from SWIID 5.1.

In Table 1, we report data for the main drivers of household net income inequality. Data are in absolute change over the period 2000–2013 (or more recent data if available). As explained by Bogliacino and Maestri (2014), this type of analysis does not permit causal inference, as the market Gini and net Gini are co-determined. By definition, inequality in net household income reflects the relative importance of income sources (e.g. capital versus labour), the distribution within each source (particularly the earnings distribution, for the labour market represents the main source of income for most of the households) and the redistributive intervention of the state through taxes and subsidies. To guarantee comparability, we rely on the CEPAL database as a primary source, but we complemented the series with information from other sources to fill in any blanks whenever the metadata allowed us to do so.

A first driver is the functional distribution between labour and capital; in Table 1, we report the variation of the share of the latter. Generally speaking, capital is more unevenly distributed, for accumulation is very sensitive to demographic factors (e.g. age) and has high inertia because of inheritance (Cowell et al., 2015; Piketty, 2014). Therefore, a reduction in the labour share worsens income distribution.<sup>5</sup> For all countries in the sample, the labour share was relatively stable but with a slightly negative trend. The only countries in which it increased were Costa Rica, Honduras and Brazil, whereas there was no variation in Ecuador and Paraguay; in the remaining countries, it decreased.

To detect changes in the labour market that statistically explain the largest part of the aggregate changes in the Gini coefficient, we considered four variables: change in educational attainment (human capital), change in minimum wage, change in the share of wages accruing to the top 20% and change in the share of informality.

According to the data, the average number of years of educational attainment in the economically active population grew, and this can be identified as a factor in the reduction of inequality. The correlation between the variation of Gini and this measure was negative and close to 50% (Pearson's  $\rho = -0.48$ ). According to Gasparini et al. (2009), the Gini of years of education has also decreased.

**Table 1. Drivers of the Change in Income Inequality: 2000–2013**

Country/ Delta 00–13	Gini of income	Labour share	Educational attainment	Top 20% wage distribution	Social expenditure per inhabitant (USD 2010)	Direct taxes /GDP	Indirect taxes /GDP	Minimum wage (real)	Percentage share of informal workers	Percentage share of years under left-wing governments
Argentina	-0.069	-0.0200	1.2		933	4	5.3	2.64	-4.3	75.0
Bolivia	-0.152	-0.1039	2.5	-9.8	62	2.9	2	1.19	-6.4	62.5
Brazil	-0.091	0.0199	2	-5.4	1327	1.5	1.9	1.03	-8.1	100.0
Chile	-0.055	-0.0070	0.9	-3.5	743	2	-1	0.49	-2.5	78.6
Colombia	-0.037	-0.0124	1.3	0	448	4.3	1.2	0.18	-1.1	0.0
Costa Rica	0.031	0.0356	1.3	3.2	931	2.1	-0.4	0.17	-6.2	56.3
Ecuador	-0.107	0.0000	1.2	-8.7	315	-0.8	0.8	0.96	-2.6	75.0
El Salvador	-0.095	-	1.3	-8.2	135	1.8	2.2	0.13	1	37.5
Guatemala	-0.007	-0.0410	0.2	4.9	53	1.4	-0.9	0.41	-1.1	25.0
Honduras	-0.013	0.0502	1.1	2.8	111	1.3	-0.7	1.17	0	0.0
Mexico	-0.051	-0.0421	1.6	-2.7	287	1.8	-1.4	0.04	-4.3	0.0
Panama	-0.036	-0.0589	1.3	2.3	414	1.4	1.1	0.41	-2.6	0.0
Paraguay	-0.022	0.0000	2.1	1.9	244	0.9	1.9	0.03	-23.5	31.3
Peru	-0.106	-0.0274	1.5	-8.4	247	4.9	-0.8	0.27	-6.8	56.3
Rep Dom	-0.018	-0.0745	1.1	0.3	147	2	-0.4	0.10	0.7	25.0
Uruguay	-0.068	-0.0724	0.9	-6	989	2.1	-3	1.73	-8.6	68.8
Venezuela	-0.061	-0.0059	1.7	-6.5	485	0.8	2.4	-0.06	-2.9	100.0

Note: For labour share, the last data point is 2011, except for El Salvador, Honduras, Peru and Venezuela, for which the last data point is 2012. Average educational attainment for the economically active population (15 and older): Argentina 2000–2014; Brazil 2001–2014; Colombia 2002–2014; Costa Rica 2000–2014; Ecuador 2000–2014; El Salvador 2000–2014; Guatemala 2002–2014; Honduras 2001–2013; Mexico 2000–2014; Panama 2001–2014; Paraguay 2001–2014; Peru 2001–2014; the Dominican Republic 2002–2014; and Uruguay 2007–2014. Change in the last quintile of labour income: Brazil 1999–2014; Colombia 1999–2014; Costa Rica 2000–2014; Ecuador 2000–2014; El Salvador 2000–2014; Guatemala 1998–2014; Honduras 1999–2013; Mexico 2000–2014; Nicaragua 1998–2009; Panama 2001–2014; Paraguay 1999–2014; Peru 1999–2014; the Dominican Republic 2002–2014; and Uruguay 2007–2014. Social expenditure was calculated in 2010 dollars and per inhabitant (Bolivia until 2009; Ecuador until 2012; El Salvador since 2004; Honduras since 2010; Mexico until 2012; Paraguay 2003–2011; Peru until 2012; the Dominican Republic until 2011; and Uruguay until 2011). For direct and indirect taxes (general government): for Colombia, El Salvador, Panama, Peru, Dominican Republic and Venezuela the years are 2000–2012; for Ecuador 2000–2005; for Honduras 2003–2012; and for Paraguay 2005–2012. Real minimum wage (base year 2000=100, percentage change is reported): for Argentina until 2011, for Venezuela until 2014, for the other countries until 2015. For the share of informal workers, a worker is considered informal if he or she receives a salary from a small business (less than five employees), is a non-professional self-employed worker or is a zero-income worker; the variation is 2000–2014, with Argentina and Ecuador since 2003, Brazil since 2004, Chile until 2013, Colombia since 2008, Honduras and Paraguay since 2001, Uruguay since 2006 and Venezuela until 2006.

For the last column, the differentiation between left, centre and right is determined by the orientation of the party in power. The left refers to parties defined as “communist”, “socialist”, “social-democratic” or “left wing”.

Source: Elaboration by the authors based on data from CEPAL-STAT, BID, International Centre for Tax and Development, Latin America Welfare Dataset (1960–2011), SEDLAC, Cruz et al. (2016).

Nine out of seventeen countries showed a reduction of the share of earnings accruing to the richest quintile, implying that the labour market improved the distribution of income in these countries. Statistically, this variable showed the highest degree of association with the delta of the Gini coefficient, with a correlation of 92.19 per cent. More robust econometric studies, such as that of Gasparini et al. (2011), have shown that the evolution of the terms of trade benefitted unskilled labour in the region.

The change in minimum wage was associated with an improvement in income distribution. The only case in which it decreased was Venezuela (due to inflation). The correlation with the delta of the Gini was negative and close to 30 per cent (Pearson’s  $\rho = -0.318$ ).

Informality decreased in all countries except the Dominican Republic, El Salvador and Honduras, but the correlation with the change in income inequality was close to zero.

The increasing role of the state is on clear display in Table 1. Social spending increased significantly in every country. In the table, we report the sum of all instalments of social expenditure in real terms and per inhabitant. Redistributive efforts were implemented in all countries, including Colombia, Mexico and Peru, which were not ruled by—or were only fleetingly controlled by—left-wing governments. Taxation also played a role, for direct taxes grew more than indirect taxes in GDP share during the period considered (for eleven of the seventeen countries). Curiously, although considered the leader in state-driven large-scale redistribution, Venezuela was an exception.

In Appendix Table 1, we show each country’s data for the 2010–2013 (or more recent data if available) sub-period, covering the aftermath of the global crisis (sub-prime and Euro crisis) and the stabilisation of the prices of commodities. The delta of the Gini was no longer negative in all countries; instead, it became positive in Bolivia, Costa Rica, Mexico and Venezuela. Also, there was a low and negative correlation with change in the previous period (Pearson’s  $\rho = -0.11$ ).

The average educational attainment continued to rise during the 2010–2015 sub-period, yet the correlation with change in the previous decade was negative. Wage distribution became more equal for nine of the countries, as it did in the previous decade, but the list of countries changed.<sup>6</sup> The reduction of informality and the growth in minimum wage were maintained (with correlation coefficients of 0.78 and 0.62, respectively, among the two periods).

Social policy continued its expansion. In particular, growth in social expenditure across the two sub-periods showed a correlation of 0.93. For direct and indirect taxes, the values were 0.63 and 0.75, respectively.

Curiously, except for social expenditure, all other variables had a positive association with the change in Gini. The highest values were those of top labour share and indirect taxes (0.85 and 0.51 respectively), where the correlation was positive as predicted by the theory.

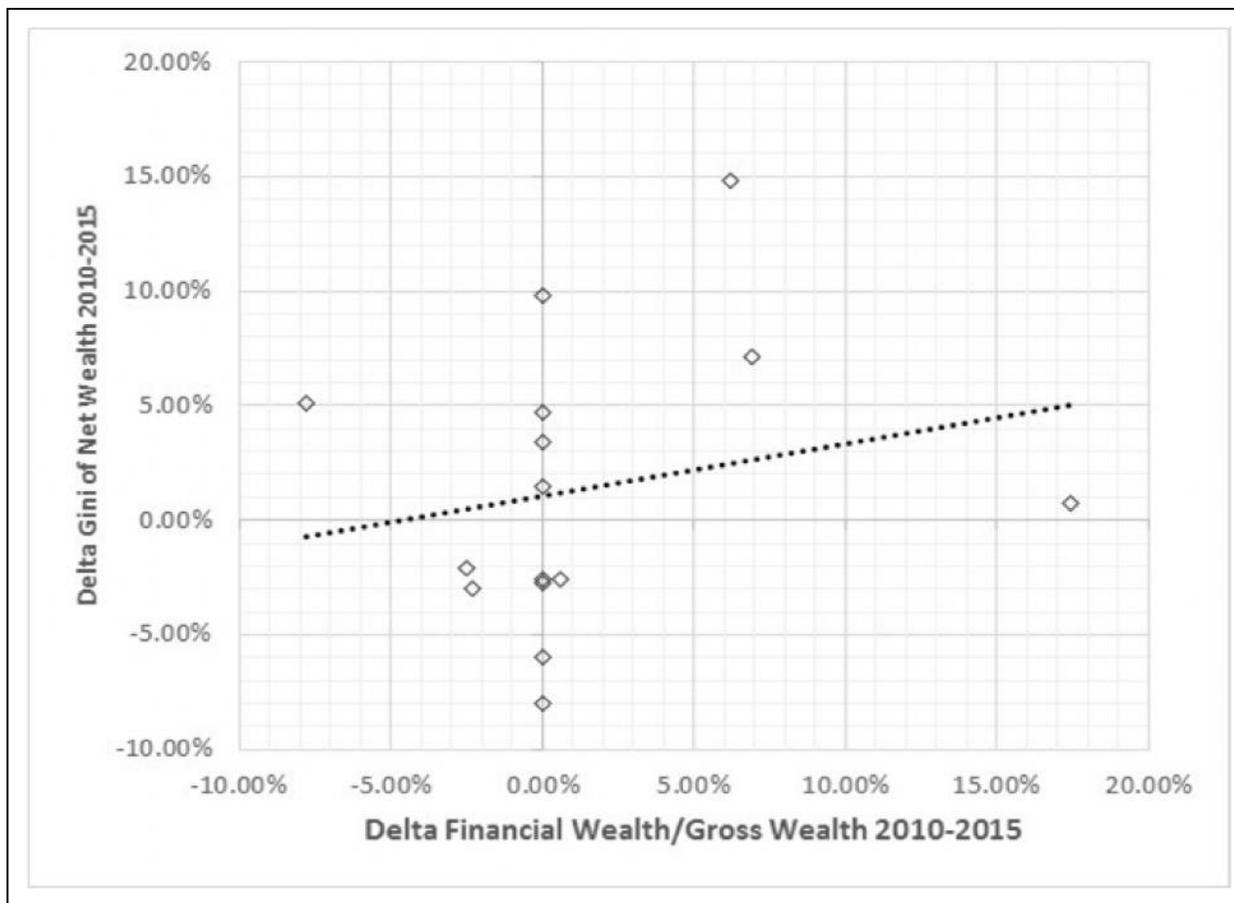
The results for the post-2010 period suggest that the egalitarian trend lost its strength and that its drivers have partly stagnated.

One could argue that demographic factors may play a role. In fact, a more healthy population and a relatively smaller household size may favour the performance in the labour market.<sup>7</sup> In the period under investigation, life expectancy increased in all countries, with the largest increases in Brazil (2.9), El Salvador (3), and Guatemala (3.6) (all data from CEPAL). The average household size decreased in all countries, according to CEPAL, except for Uruguay (where no change is observed), and Argentina (missing data). The largest explanatory factor is the former, whose correlation with the variation of the Gini is -0.51 (for household size, the Pearson's rho with the variation of the Gini of net income is barely 0.10). A counterargument is that these indicators are mainly associated with poverty reduction, which is also taking place in these countries, and not really with inequality levels. But the common trend may explain the correlation.

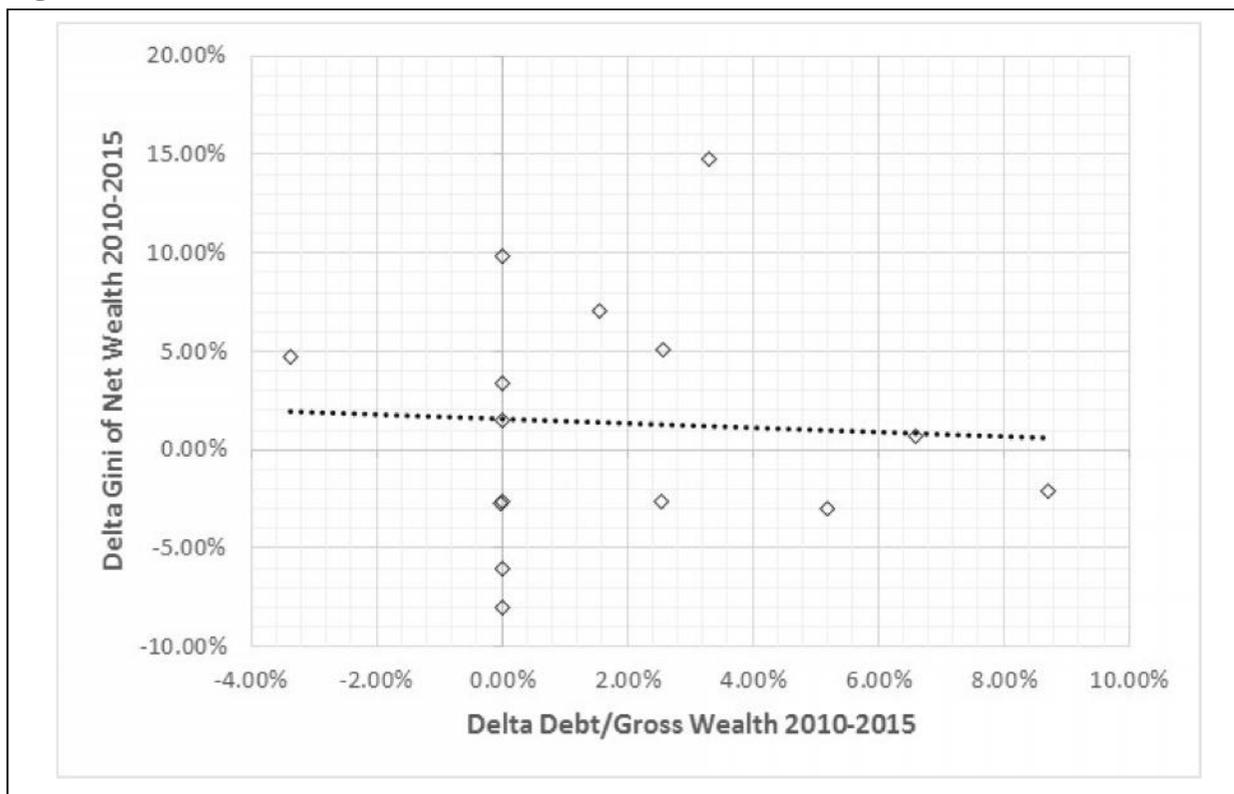
Regarding the drivers of wealth inequality, there are two potential explanatory factors. On the one hand, financial wealth is more concentrated than housing wealth; thus, when the quantitative importance of the former increases, wealth becomes more concentrated. The correlation between the change in the share of financial wealth in gross wealth and the change in the Gini coefficient of net wealth was positive as shown

in Figure 5, but the change was negligible for a number of countries. On the other hand, access to debt may favour or reduce inequality, depending on the gradient of the access across the support of the distribution. The correlation between the change in the share of debt in gross wealth and the change in the Gini coefficient was barely negative, as shown in Figure 6. As for financial wealth, the share was relatively stable.

**Figure 5. Financial Wealth and Wealth Distribution**



Source: Elaboration by the authors based on data from Shorrocks et al. (2010; 2015).

**Figure 6. Debt and Wealth Distribution**

Source: Elaboration by the authors based on data from Shorrocks et al. (2010; 2015).

## 5. Some Causal Hypotheses

Identifying causal factors behind the evolution of inequality is a particularly demanding task for two reasons. The complexities and interrelations within the economy require a general model which allows for the incorporation of the effects of aggregation, but the need for an in-depth treatment of the distributive effect of governmental intervention and structural heterogeneity (e.g. the presence of informality) essentially proscribes the use of standard models of general equilibrium, where homogeneity assumptions prevail.

Thus we used a comparative method, seen in the other sections of this article, which relies on historical reconstruction to shed light on possible causal mechanisms.

At the beginning of this century, the countries of the region were characterised by typical underdevelopment features in terms of industrial structure, labour relations, access to public goods and very high levels of concentration in many dimensions.

The subsequent decade and a half featured a significant reduction in income inequality that was rather homogeneous across the countries studied. By all means, this is a result that must be acknowledged.

In fact, it does not cease to surprise that as the world became more unequal (OECD, 2012), South America went a different direction. In the same decades, we did not observe any homogeneous pattern among other countries of the Third World (Cornia, 2010) nor did the data suggest a convergence that might be consistent with regional trend. Globally, distribution continued deteriorating in very unequal countries such as the United States. Another potential explanation, i.e. transition across political regimes, also fails to offer a satisfactory account: countries such as Portugal, Spain and Greece improved their distribution in the late seventies and eighties when exiting dictatorships, whereas the transition from planned to market economies made Eastern European countries less equal (Bogliacino and Maestri, 2014).

Based on the data in Table 1, we can see that the most important explanatory factors are the change in the endowment of human capital and more generous social policies. As suggested by Alvaredo and Gasparini (2015), the labour market has played a role, but government intervention certainly had the greatest influence (Cornia, 2010).

A possible interpretation is that the symbolic victories of the new left may have inflated social pressures, mostly in the presence of rents generated by the commodity boom. Data are consistent with this hypothesis. The statistical association between left government and change in inequality is robust even when we control for the change in Gini coefficient in the 1980–2000 period ( $t=-3.49$ ,  $p<0.01$ , Ordinary Least Squares regression with robust standard errors), for the total amount of social expenditure from column 6 in Table 1 ( $t=-2.96$ ,  $p=0.01$ ), for the change in labour share from column 3 in Table 1 ( $t=-3.60$ ,  $p<0.01$ ), or for the change in educational attainment from column 4 in Table 1 ( $t=-2.78$ ,  $p=0.01$ ).

It is likely that the presence of Venezuela, the visibility of its achievements in certain areas (e.g. infrastructure and social housing) and its leading role in foreign policy (e.g. Petrocaribe<sup>8</sup>) induced a redistributive response in the region as a way to placate the pressing popular demands for political representation (which often take the form of populist movements), especially in presence of a commodity boom that directly (royalties or public enterprise) or indirectly (export taxes) fed governmental budgets.

An alternative interpretation to the “fear of the left” is that the origin of this new political climate may be the reaction to the adjustment plans of the 1980s and 1990s, which increased social pressure and political support for redistribution policies.

This is one of the possible mechanisms of the overshooting hypothesis, which holds that the reduction in inequality in the 21<sup>st</sup> century is a natural reversal that follows the excessive increase of inequality witnessed during the decades of the reforms (1980s and 1990s), or the claim that the observed changes are the result of a rebound from the effects of the macroeconomic crises at the end of the 20<sup>th</sup> century.

The evidence for this alternative hypothesis is mixed, at best. In fact, the regional pattern for the first decades of the 21<sup>st</sup> century is much more homogeneous than the tendency observed in previous decades (Gasparini and Lustig, 2011; Gasparini, 2005). In Appendix Figure 7, we plot both the 1980–2000 and 2000–2013 changes. The trend line is negatively sloped, but the correlation is minimal, and not significant ( $t=-0.76$ ,  $p=0.457$ , OLS regression with robust standard errors). The average share of vote to the left in the general elections during the first decade of the 21<sup>st</sup> century is also not correlated with the previous change in Gini ( $t=0.97$ ;  $p=0.349$ , OLS regression with robust standard errors). One would expect it to be significant if the underlying cause was a pure reaction to the adjustment plan.

Of course, the presence of similar redistributive policies in right wing and left wing governments (Atkinson, 2015) would be consistent with the overshooting hypothesis, but it is equally in line with the idea of the pressure for a political alternative in the region (a sort of Chávez effect), which creates pressure for redistribution through either ideological closeness or fear of the loss of consensus (Lavinás, 2013).

It is also very unlikely that the set of policies impacting inequality is explained exclusively by a sort of policy cycle. Worldwide, or even among developing countries, there are no systematic trends consistent with the aforementioned overshooting or rebound hypotheses (Alvaredo and Gasparini, 2015). On balance, as stressed by Atkinson (2015) and Piketty (2014), the evolution of inequality is generally explained by the set of policies adopted within the (relatively wide) margins defined by macroeconomic and microeconomic constraints.

Nevertheless, this change in distribution has barely altered the balance of power prevalent in these societies. For example, the richest 1% of the population has not reduced its share of income. Unfortunately, from the

data gathered by Alvaredo et al. (2016), we can only extract information for three countries in the region: Argentina saw a growth in the share of the 1% from 14.34% in 2000 to 16.75% in 2004; in Colombia, this went from 17.32% in 2000 to 20.45% in 2010; in Uruguay, there was a negligible reduction from 14.2% to 14% between 2009 and 2012. The coexistence of more equitable income distribution and a substantial invariance in the quota of the richest 1% should not be surprising given that Gini is very insensitive to the extremes of distribution (Atkinson and Morelli, 2010). This insensitivity can be explained by statistical reasons and by the scarcity of data for the richest, caused by sampling design or insufficient survey collaboration.<sup>9</sup>

Moreover, we see that the region's countries promoted active redistribution (transference, direct taxes, and higher minimum wage) without addressing the structural weaknesses of the economy. It is significant that Bértola and Ocampo (2013) suggest that even in Venezuela, nationalisation packages have been limited in comparison to the models of the developmental state of the past. Also, they suggest that even where there was an interventionist bias, e.g. in the oil and gas sector (Ecuador, Bolivia) or in industrial policy (Brazil), the macroeconomic policy mix of left-wing governments was relatively orthodox, especially given the strict restrictions stemming from a high degree of openness.

We have two indirect pieces of evidence for this claim. In Table 2, we report the introduction of conditional cash transfers (CCT). It can be seen that its presence has been rather diffuse in the region, except for Venezuela. The use of CCTs has been recommended by international organisations (in the case of Colombia, it was part of Plan Colombia; Rojas 2015), who claim that targeting reduces political discretionality, in turn increasing the efficacy of interventions. However, CCTs attract criticism on two grounds. On the one hand, CCTs are accused of commodification and of favouring market provision of public and social goods instead of direct governmental provision through in-kind benefits (Lavin as, 2013). On the other, they are said to induce a conservative bias in governments.<sup>10</sup> By eliminating criteria of universality and breaking the link between work and social protection,<sup>11</sup> whose contractualist logic is typical of social democracies, CCTs exclude labour organisations as a legitimate counterpart in government and allow for the maintenance of an economic policy under technocratic control within a substantial (neo) liberal hegemony. As is further seen from the last column of Table 2, all countries maintain de jure central bank independence, which is the cornerstone of financial orthodoxy because it induces financial market discipline with respect to government expenditure.

**Table 2. Conditional Transfer Programs and Central Bank Autonomy Programs**

Country	Program	Year Applied	Central Bank – Autonomy Law 1989–2002
Argentina	Asignación Universal por Hijo para Protección Social	2009–	1992, 2002, 2012*
	Familias por la Inclusión Social	2005–2010	
	Jefas y Jefes de Hogar Desocupados	2002–2005	
	Programa de Ciudadanía Porteña	2005–	
Bolivia	Bono Juancito Pinto	2006–	1995
	Bono Madre Niña-Niño Juana Azurduy	2009–	
Brazil	Bolsa Alimentación	2001–2003	2000, 2003
	Bolsa Escuela	2001–2003	
	Bolsa Familia	2003–	
	Tarjeta de Alimentos	2003–	
	Programa Bolsa Verde	2011–	
	Programa de Erradicación del Trabajo Infantil	1997–	
Chile	Chile Solidario	2002–2012	1989
	Ingreso Ético Familiar	2012–	
Colombia	Más Familias en Acción	2001–	1992
	Red Unidos	2007–	
	Subsidios Condicionados a la Asistencia Escolar	2005–2012	
Costa Rica	Avancemos	2006–	1995
	Superémonos	2000–2002	
Ecuador	Bono de Desarrollo Humano	2003–	1992, 1998
	Bono Solidario	1998–2003	
	Desnutrición Cero	2011–	
El Salvador	Programa de Apoyo a Comunidades Solidarias	2005–	1991
Guatemala	Mi Bono Seguro	2012–	2001
	Mi Familia Progresá	2008–2011	
	Protección y Desarrollo de la Niñez y Adolescencia Trabajadora	2007–2008	
Honduras	Bono Vida Mejor	2010–	1996, 2004
	PRAF/BID Fase II	1998–2005	
	PRAF/BID Fase III	2006–2009	
	Programa de Asignación Familiar (PRAF)	1990–2009	
Mexico	Oportunidades	1997–2014	1993
	Prospera. Programa de Inclusión Social	2014–	
Panama	Bonos Familiares para la Compra de Alimentos	2005–	-
	Red de Oportunidades	2006–	
Paraguay	Abrazo	2005–	1995
	Tekopora	2005–	

Peru	Juntos	2005–	1993
Dominican Republic	Programa Solidaridad	2005–2012	2002
	Progresando con Solidaridad	2012–	
Uruguay	Asignaciones Familiares	2008–	1995
	Plan de Acción Nacional a la Emergencia Social	2005–2007	
	Tarjeta Uruguay Social	2006–	
Venezuela	-	-	1992, 1999, 2002

Note: \*In 2012, the Argentinian Congress passed a law mandating that the central bank promote policies established by the national government.

Source: Elaboration by the authors based on data from CEPAL and Carstens and Jacome (2005).

Another piece of indirect evidence for this thesis is found in Table 3, in which we report some structural indicators of the economy, such as exports of primary goods over the total exports of goods, the extent of external constraint (percentage share of years with current account deficit) and a measure of capital account openness. With regard to openness, we constructed the variable based on the different releases of the Chinn and Ito Index (2006; 2008). It captures the de jure liberalisation of the capital market. Although imperfect, it is standardised and mitigates the problem of endogeneity.

Table 3 can be read in conjunction with Column 3 of Table 1 where we report the variation of labour share, and Column 4 of Table 1 where there is the change in educational attainment. Together, these data show that the countries of the region did not address any structural weaknesses, which characterise their status as dependent, with the possible exception of increased human capital, which, however, is growing everywhere in the world. The table documents a process of re-primarisation characteristic to all economies, even if the data for Guatemala, El Salvador, Honduras and the Dominican Republic should be handled with care<sup>12</sup>. With the exception of Venezuela and Bolivia (where price effects dominate given that the purchasing power of exports rose 104% for the former and 368% for the latter between 2000 and 2012, according to CEPAL data), the region's countries did not take measures to soften the external constraint (as shown by the size of the cumulative current account deficit). Since the 1970s, the financing of current account deficits established itself as a binding restriction preventing the implementation of a Keynesian macroeconomic framework (Barba and Pivetti, 2016; Panitch and Gindin, 2012).

A final item of this second piece of evidence is that instead of a reversal with respect to the liberalisation of capital movement of the 1990s, we see a prevalence of further liberalisation or stabilisation. The exceptions are Venezuela and Argentina, and to a lesser extent, Bolivia, Paraguay and El Salvador.

Ultimately, the post-2010 change in the size and direction of inequality indicators and the drivers of inequality explain why it would have been important to address these weaknesses and guarantee sustainability of the inequality reduction.

**Table 3. Structural Indicators**

Country/Delta 00–15	Export of primary goods/ Total export of goods	Percentage share of years with deficit in current accounts	Capital market openness
Argentina	3.1	50.0	-3.25
Bolivia	22	20.0	-1.30
Brazil	20.3	68.8	1.06
Chile	1.8	60.0	2.28
Colombia	8.3	93.8	1.06
Costa Rica	12	100.0	0.00
Ecuador	2.2	43.8	0.16
El Salvador	2.4	100.0	-1.29
Guatemala	14.0	93.8	1.22
Honduras	-9.8	100.0	-
Mexico	0.6	100.0	0.00
Panama	3.8	100.0	0.00
Paraguay	8.8	50.0	-1.30
Peru	5.4	75.0	-
Dominican Republic	14.7	87.5	2.99
Uruguay	16.7	80.0	0.00
Venezuela	7.3	0.0	-4.28

Note: The export of primary products includes: food items; live animals; drinks and tobacco; non-edible raw materials; combustibles and fuels; lubricants, minerals and related products; oils, greases, fats and waxes of animal and vegetable origin; and non-ferrous metals. The data for Honduras is for 2006–2014, Dominican Republic 2002–2015, Guatemala and El Salvador since 2005 and Venezuela until 2013. The percentage share of years with deficit in balance covers until 2014 for Bolivia, Chile, Costa Rica, Uruguay and Venezuela.

Source: Elaboration by the authors based on data from CEPAL-STAT, BID and Chinn and Ito (2006).

The degree of openness to external markets encompasses the variation during 2000–2013 for all countries; the higher the value, the larger the aperture of the country with respect to international capital transactions.

## 6. Conclusions

In this article, we analysed the distribution of income and wealth for the largest Latin American economies in the 21<sup>st</sup> century. The evidence reveals that income inequality decreased, though wealth inequality displayed a much less homogeneous pattern.

The main important drivers are represented by a new effort in social expenditure and labour market changes. In regard to wealth inequality, the main explanatory factor seems to be the growing importance of financial wealth over gross wealth.

The arrival of the global financial crisis and the change in the prices of commodities, which sustained the boom of the 2000s, have apparently weakened the strengths of these drivers. Nevertheless, more and better evidence is still necessary.

In terms of causal hypotheses, data seem to support the idea that the new left had an indirect impact on the whole region insofar as it pushed stronger redistributive policies. This suggests that the Chavez effect, to offer one possible label, overcame the political orientation of the government in charge. However, countries did not address the structural weaknesses and maintained a relatively orthodox framework of macroeconomic policies, with limited exceptions; this responded to (domestic) political and (regional) geopolitical equilibria. Obviously, the less favourable external environment is consistent with the change of direction in the years 2010–2015 given that without structural change, the end of the commodity boom narrows the redistributive margin through austerity in spending.

The alternative hypothesis of a rebound effect subsequent to a growth in inequality at the end of the past century seems less coherent with the data. Further analysis is clearly needed.

These decades taught us that social agenda should be implemented within a framework of alternative macroeconomic policies that deal and soften macroeconomic constraints as well as a reform of political systems towards a contractualist/social-democratic model that allows for conflict management within institutional rules.

## Notes

- \* We thank all members of the group “Controversiassobredesarrollo” at the Universidad Nacional de Colombia and participants in seminars at the Universidad Nacional and the Escuela de pensamiento by the SDP in Bogotá for comments on the Spanish version of the paper. We also thank Marco Veronese Passarella and Marco Vivarelli for comments and suggestions, and Joseph Wager for reviewing the final text.
- <sup>1</sup> The full list of countries (abbreviation in parentheses): Argentina (AR), Australia (AUS), Austria (AU), Belgium (BE), Bolivia (BO), Brazil (BZ), Canada (CA), Chile (CL), China (CHI), Colombia (CO), Costa Rica (CR), Denmark (DK), the Dominican Republic (DR), Ecuador (ECU), El Salvador (SAL), Finland (FI), France (FR), Germany (DE), Greece (EL), Guatemala (GUA), Honduras (HO), Mexico (MEX), Netherlands (NL), Nicaragua (NI), Norway (NO), Panama (PAN), Paraguay (PA), Peru (PE), the United Kingdom (UK), the United States (USA), Uruguay (URU) and Venezuela (VZ).
- <sup>2</sup> The Database of Political Institutions (Cruz et al., 2016) registers the political orientation of the party, according to its name and label. Whenever the latter criterion was insufficient, a database was used which classified the party according to the ideological roots. Zelaya reached Honduras Presidency in 2006 with the Liberal Party that has always been classified as Center Right, whereas its closeness to Chavez brought some analysts to include its 2006-2009 presidency as belonging to the left turn. Data and analysis in Section 4 are robust to this potential measurement error. Colombia and Venezuela are classified as missing value thus we imputed respectively as right and left over the entire period, since we found no alternative classification in the literature.
- <sup>3</sup> For the Gini of income, we focused on the last available year.
- <sup>4</sup> According to the Ease of Doing Business Index (World Bank, 2016), Peru was ranked 54<sup>th</sup> and Venezuela 187<sup>th</sup>.
- <sup>5</sup> Technically, we also need a high correlation between asset holdings and income level, which is generally the case. For a technical discussion, see Milanovic (2017).
- <sup>6</sup> The correlation of the variation was barely 15%.
- <sup>7</sup> Marriage segregation according to income level (assortative mating) may also play a role (Salverda and Haas, 2014), but we don’t have a reliable measure.
- <sup>8</sup> Petrocaribe is an agreement signed in 2005 under the Chávez administration in Venezuela. The agreement guarantees preferential payment conditions for the purchase of oil by participating Caribbean countries. Its signatories are: Venezuela, Cuba, Dominican Republic, Antigua and Barbuda, Bahamas, Belize, Dominica, Granada, Guyana, Honduras, Jamaica, Suriname, Saint Lucia, Guatemala, El Salvador, San Cristobal and Nieves and Saint Vincent and the Grenadines.
- <sup>9</sup> For developed countries, the correlation between the change in top shares and the Gini is sizeable, as shown by Leigh (2009); however, more recent evidence of this correlation is less robust, as shown by Bogliacino and Maestri (2014).
- <sup>10</sup> This mimics the discussion of transformism in Europe (Paggiand’ Angelillo, 1986). Transformism, an Italian phenomenon (Trasformismo) in the transitional decades between the 19<sup>th</sup> and the 20<sup>th</sup> centuries, was criticised by liberal figures such as Pareto and Einaudi under the assumption that it stemmed from a political elite primarily interested in maintaining power. However, in the liberal optic, it is inscribed within the theory of modernisation and is based on certain stereotypes about the supposed superiority of Anglo-Saxon civil society. Historically, this discourse has legitimised the formation of technocratic classes of liberal inspiration which govern under the umbrella of any power coalition (Gramsci, 1966; 1977). A very similar experience has occurred in the Brazilian, Colombian, Peruvian and related contexts within the region, where technocrats have managed the economy under very different political regimes, including dictatorships (Harberger, 1993).
- <sup>11</sup> In many cases, they actually generate perverse incentives, such as marginal tax rates above 100%, as Atkinson (2015) explains, or act as a barrier to move out of informality.

<sup>12</sup> In the Dominican Republic, the share of primary goods to total exports collapsed from 65.8 to 17.1 in 2001; this change was not justified by variations in trade (which improved by 1%) or variations in the purchasing power of exports (which decreased by 1%; both figures are taken from CEPAL). Likewise, it was not an effect of the financial crisis that exploded in 2003. Given that the trend after 2002 was weakly incremental, we excluded 2001 (also, no explanations were given in the CEPAL metadata). For Honduras, we used 2006 because there was a change in the methodology used by CEPAL related to the inclusion of re-export. For Guatemala and El Salvador, there was a break in the series in 2004 without justification in real or financial dynamics; of course, some negative shocks, such as a decrease in the price of coffee and sugar arose (or the collapse of the export of prawns and shrimp for El Salvador; Monje-Naranjo and Rodríguez-Clare, 2008) but were not concentrated in 2004 and were not large enough to explain the observed difference. The signing of a free-trade agreement with the US occurred in the same year, but the dynamics of the maquila industry did not reflect the observed break. Jumps were observed in items such as “unspecified consumer goods” (for both El Salvador and Guatemala), “other goods” (for El Salvador) and “other industrial input” (for Guatemala). In the absence of an explanation for these changes, which seem to reflect changes in accounting rules, we prefer to consider 2005 a starting point for the series.

**Appendix Table 1. Determinants of Gini Variation (from 2010 to last year available)**

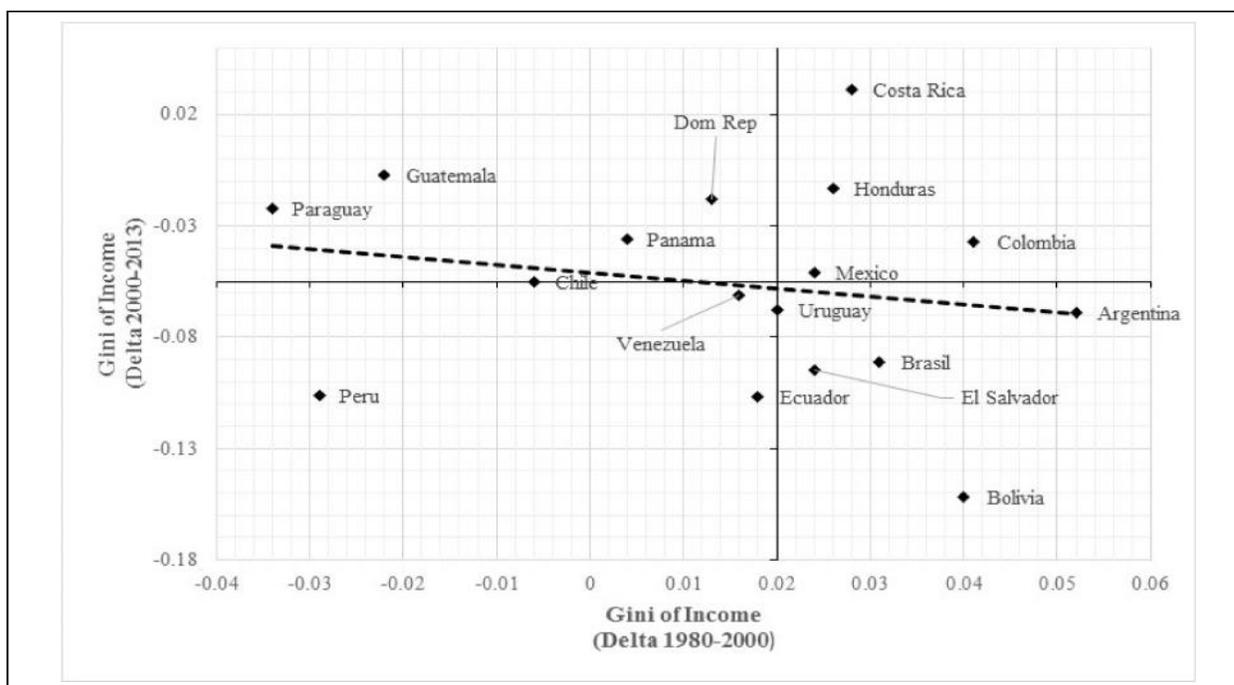
Country /Delta 10–13	Gini	Educational attainment	Top 20% wage distribution	Social expenditure per inhabitant (USD 2010)	Direct taxes /GDP	Indirect taxes /GDP	Minimum wage (real)	Percentage share of informal workers	Percentage share of years under left-wing governments
Argentina	-0.019	0.2	-	375	1.8	1.4	0.43	0.8	100.0
Bolivia	0.021	0.1	1.7	30	1.4	1.9	0.99	1.1	100.0
Brazil	-0.013	0.5	-0.8	346	0.7	1	0.21	-1.3	100.0
Chile	-0.015	0.6	-0.2	335	0.3	0.7	0.21	1.3	50.0
Colombia	-0.02	0.6	-1.7	88	2.3	-0.2	0.07	-2.9	0.0
Costa Rica	0.004	0.4	0.9	265	0.4	-0.2	0.11	-1.1	100.0
Ecuador	-0.037	0.6	-3.5	42	0.4	-	0.35	-1	100.0
El Salvador	-0.027	0.7	-2.4	80	-	-	0.12	-2	100.0
Guatemala	-0.036	2.2	-2	-4	0.7	-0.1	0.19	-3.1	33.3
Honduras	-0.03	0.7	0.5	14	0.06	0.14	0.03	-1.6	0.0
Mexico	0.017	0.4	3.7	4	0.7	-0.4	0.09	0.6	0.0
Panama	-0.012	0.6	-0.5	156	0.6	0.3	0.27	-1.9	0.0
Paraguay	-0.002	1	1	54	0.53	0.43	0.00	-18.2	67.0
Peru	-0.021	0.2	-2.6	46	1.1	-0.5	0.17	-0.6	100.0
Rep Dom	-0.032	0.5	-4.1	-9	1.3	-0.5	0.17	-1.7	0.0
Uruguay	-0.037	0.6	-3.1	371	-0.6	-0.5	0.77	-5.2	100.0
Venezuela	0.013	0.7	0.7	133	0.2	1.7	0.00	-	100.0

Note: For the Gini, the variation is 2010–2014: Bolivia, Brazil and Guatemala since 2011, Chile 2009–2013, Venezuela until 2013. Average educational attainment: Argentina, Honduras and Mexico until 2014; and Bolivia, Brazil and Chile since 2011. We did not include the variation in the labour share because data stopped at 2011. For the top 20% wage distribution, the variation is 2010–2014: Bolivia and Chile 2011–2013,

Honduras and Venezuela until 2013, Brazilsince 2011 andGuatemala 2006–2014. For social expenditure per inhabitant,the time window is 2010–2014; Bolivia 2008–2009; Colombia, El Salvador, Panama, Venezuela up to 2013; Ecuador, Mexico, Peruuntil 2012; Paraguay, the Dominican Republic and Uruguay 2009–2011; and Honduras 2008–2010. For direct and indirect taxes over GDP, the source is CEPAL for Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Guatemala, Mexico and Panama; ICDT for the rest of the countries. The variation is 2010–2013: Colombia, Panama, Ecuador, Honduras, Paraguay, Peru, the Dominican Republic and Venezuela until 2012 and Uruguay 2011–2012. For thereal minimum wage,the base yearis 2000, and we report thepercentage change; note that Argentina’s data were recordeduntil 2011 and Venezuela’s until 2014. Informal workers are those who receive a salary from a small business (less thanfive employees), areself-employed non-professionals or are zero-income workers. Variation covers 2010–2014 with Bolivia, Brazil, Guatemala from 2011 and Chile from 2011–2013; data for Venezuelaare missing. For the last column, the differentiation between left, centre and right is determined by the orientation of the party in power. The left refers to parties defined as “communist”, “socialist”, “social-democratic” or “left wing”.

Source: Elaboration by the authors based on data form SEDLAC, CEPAL, BID, ICDT and Cruz, Cesi Philip Keefer and Carlos Scartascini (2016).

### Appendix Figure 1. Change of the Gini of Income between the End of the 20<sup>th</sup>Century and the Beginning of the 21<sup>st</sup>Century



Note: Argentina 1992–1998 (Gini for 15 principal cities); Bolivia 1992–1997 (Gini for urban areas); Brazil 1981–1990; Chile 1987–2000; Colombia and Honduras 1991–1999; Costa Rica, Mexico, Panama, Uruguay and Venezuela 1989–2000; the Dominican Republic 1996–1997; Ecuador and Paraguay 1995–1999; El Salvador 1995–2000; Guatemala 1989–1998; and Peru 1997–2000.

Source: Elaboration by the authors based on data from SEDLAC and CEPAL (Colombia, El Salvador, Guatemala).

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