BEYOND A SINGLE MODEL: EXPLAINING DIFFERENCES IN INEQUALITY WITHIN LATIN AMERICA

DIEGO SÁNCHEZ-ANCOCHEA

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**Contacts:** Elizabeth Rankin, Editorial Manager
erankin3@nd.edu
BEYOND A SINGLE MODEL:
EXPLAINING DIFFERENCES IN INEQUALITY WITHIN LATIN AMERICA(*)

Diego Sánchez-Ancochea

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Diego Sánchez-Ancochea is the head of the Oxford Department of International Development and Professor of the Political Economy of Development at the University of Oxford. He was a Kellogg Institute for International Studies visiting fellow in 2018–19. His research focuses on the determinants of income inequality and the role of social policy in reducing it. He has published extensively on these topics and others related to Latin American political economy in international journals and has coedited four books. Together with Juliana Martínez Franzoni, he is the author of Good Jobs and Social Services: How Costa Rica Achieved the Elusive Double Incorporation (Palgrave Macmillan) and The Quest for Universal Social Policy in the South: Actors, Ideas and Architectures (Cambridge University Press). Sánchez-Ancochea was treasurer of the Latin American Studies Association between June 2017 and June 2020 and member of the editorial boards of Oxford Development Studies (associate editor), the Journal of Development Studies, and the Journal of Latin American Studies.

Key words: income inequality, QCA, land inequality, democracy, political equality, left, exports, Latin America

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ABSTRACT

This paper studies the determinants of income inequality in Latin America over the long run, comparing them with explanations of why the whole region is unequal. I first show how land inequality can account for differences between Latin America and other parts of the world but how it does not explain within-region differences. Using qualitative comparative analysis, I then consider how political institution and actors interact with the economic structure (i.e., type of export specialization) and with the ethnic composition of the population. The paper has several findings. A low indigenous/afrodescendant population is a necessary condition for relatively low inequality. I identify two sufficient-condition paths, both of which include the role of democracy, political equality, and a small indigenous and afrodescendant population. The first path also includes a favorable export specialization, while the second one includes the presence of leftist presidents instead. The paper calls for more explicit comparisons between our analytical models for the whole region and our explanations of between-country differences. Hopefully, the paper can also trigger more research on how the interactions between ethnicity, politics, and the export structure shape inequality in Latin America.

RESUMEN

Este documento de trabajo estudia los determinantes de largo plazo de la desigualdad del ingreso en América Latina, comparándolos con las explicaciones de por qué la región en su conjunto es desigual. Primeramente, muestro como la desigualdad en la distribución de la tierra explica el contraste entre América Latina y otras partes del mundo, pero no es útil para entender las diferencias al interior de la región. A través de un análisis cualitativo comparado, seguidamente considero como las instituciones y actores políticos interactúan con la estructura económica (ej. el tipo de especialización exportadora) y con la composición étnica de la población. El documento de trabajo presenta varios resultados de interés. La existencia de una población indígena y afrodescendiente limitada es una condición necesaria para tener desigualdad baja. Identifico también dos constelaciones de condiciones suficientes—ambas incluyen la democracia, la igualdad política y una cantidad baja de población indígena y afrodescendiente. La primera ruta incluye, además, una especialización exportadora favorable, mientras que la segunda contiene en cambio la presencia de presidentes de izquierdas. El documento de trabajo llama a comparaciones más explícitas de nuestros modelos analíticos regionales y nuestras explicaciones de las diferencias entre países. Se espera, además, que el artículo impulsen más investigaciones sobre cómo las interacciones entre etnia, política y estructura exportadora contribuyen a la desigualdad en América Latina.
That Latin America is among the most unequal regions in the world is by now an established fact (Alvaredo and Gasparini, 2015; World Bank, 2004). Yet there are also significant differences within the region. Argentina and Honduras are both unequal by global standards, but post taxes, transfers, and public social services, their Gini coefficients are more than 20 points apart. What explains this variance in income distribution? Are the factors driving inequality in the whole region the same as those determining country differences?

These are important questions from an empirical, analytical, and policy perspective. Empirically, income distribution is relatively stable in each country over time but varies significantly between countries across the world (Li, Squire, and Zou, 1998). Improvements in income distribution are only meaningful when accumulated over long periods of time. Yet most studies of inequality focus on relatively short-term changes, relying on time series for single countries or panel data with fixed effects. Analytically, it is important to contrast the models we build to explain regional patterns with explanations for variance within regions. How meaningful is “Latin America” or “Sub-Saharan Africa” as a unit of analysis? These are important questions in many areas of political economy, going well beyond income distribution. For example, the reason why Africa as a continent was left behind may be related to its institutional weaknesses. Yet growth divergence within Africa may have more to do with other economic and demographic variables. In terms of policy, learning from the experience of countries like Argentina and Uruguay may be more relevant for other developing countries than trying to imitate the Swedish experience.

This paper adopts a long-term perspective to answer these questions. The objective is to understand the constellation of structural conditions (both necessary and sufficient) that determine more or less inequality, rather than the factors that explain short-term shifts. To do so, I first consider dominant explanations of Latin America’s common pattern. Starting from the Latin American structuralists in the 1950s, political economists have focused on the combination of land inequality, primary specialization, and ethnic exploitation to explain unequal income distribution across the region. Together these socio-economic features contributed to wealth and political concentration in the hands of the elite, leading in turn to exclusionary policies and ultimately to inequality (Acemoglu, Johnson and Robinson, 2001; Cardoso and Pérez Brignoli, 1979; Engerman and Sokoloff, 2000; Frankema, 2009; Furtado, 1974).
I build on this explanation and insights from power-resource theory to explore differences in income distribution between Latin American countries. First, I expect a small indigenous and afrodescendant population to be a necessary condition for low inequality. Despite dominant discourses of *mestizaje* and racial democracy, indigenous peoples and afrodescendants have suffered systematic discrimination for decades (Telles, 2014). The presence of these groups has also weakened the opportunity for pro-equity, cross-class coalitions and made political struggles more complicated (Rodríguez Weber, 2018; Thorp, 2012).

In terms of sufficient conditions, I focus on long-term processes and hypothesize two paths to explain low inequality: one economic and one political. Countries with either better land distribution or with “favorable” exports able to create linkages—e.g., cattle instead of copper—likely had more opportunities for equality. In other countries, politics may have exerted more influence: the presence of progressive political institutions—i.e. a tradition of democracy, social movements and leftist presidents—over long periods of time contributed to relatively low inequality.

Using descriptive statistics and qualitative comparative analysis (QCA)—a methodology that combines case knowledge with Boolean logic to identify complex causal explanations of an outcome—I explore these potential necessary and sufficient conditions. I confirm the importance of race and ethnicity as a necessary condition: all countries with relatively low inequality also have a relatively low share of indigenous and afrodescendant populations.\(^1\) By contrast, not all my expectations regarding the sufficient conditions are met: in particular, land distribution does not seem to matter because it was equally bad in all countries. Instead, my empirical analysis highlights the relevance of politics. I identify two sufficient paths: one that combines a tradition of democracy and political equality with favorable exports and another that includes democracy, political equality, and leftist presidents.

The paper is divided into six more sections. The next section considers Latin America’s pattern of (high) inequality, proposes the analytical model, and subsequently rejects the comparative explanatory value of land distribution. Section 3 describes the methodology and justifies the use of QCA. Section 4 explores the outcome variable, using the Gini coefficient after taxes and transfers to order Latin American countries. Sections 5 and 6 present the necessary and

\(^1\) I should stress once again that when I talk about “relatively low inequality,” I am using the rest of Latin America as a reference point and not the whole world.
sufficient conditions, considering the way export specialization and politics combine and highlighting the role of race and ethnicity. Section 7 concludes, explaining the analytical and policy relevance of the research.

**LATIN AMERICA AS THE MOST UNEQUAL REGION**

Coming from either the Anglo-Saxon or the Latin American traditions, various authors have explained why Latin America has been more unequal than other regions since the late 19th century, if not before. For Engerman and Sokoloff (2000), inequality had its origins in the colonial period. The colonies’ climate, soil, and/or abundance of indigenous peoples created incentives towards land concentration. Access to land gave a small elite the political power to shape institutions (e.g., suffrage) and policies (e.g., level and type of education). The role of colonial institutions and land inequality is equally emphasized by Acemoglu, Robinson and collaborators—even if they give less weight to the initial endowments (e.g., Acemoglu, Johnson and Robinson, 2001). An earlier tradition within Latin American political economy had already focused on the colonial origins of inequality, linking it to the role of the international division of labor (e.g., Furtado, 1974; Cardoso and Pérez Brignoli, 1979).

While questioning the colonial origins of the process, authors like Coatsworth (2005, 2008), Frankema (2009), and Williamson (2010) also consider long-term factors to account for Latin America’s bad distribution of income in the 20th century. In their view, the first wave of globalization that begun in the 1870s led to a sharp increase in inequality; the economic elite used its political influence to grab more land and gain full control over booming primary exports. The process was more or less intense depending on how political and economic forces interacted (Bértola and Ocampo, 2012).

In most of these political economy accounts there is thus a common temporal causal chain that explains why Latin America is so unequal (Thorpe, 2012). A bad distribution of land together with structural discrimination against indigenous people strengthened the elite and contributed to the consolidation of unequal economic and social institutions. As Frankema (2009: 8) argues, even if inequality has changed significantly over time, there are “specific ‘Latin’ inequality characteristics… It is impossible to disconnect the omnipresence of land inequality in 20th century Latin America from the colonial *encomienda* and *hacienda* system.
Similarly, it does not make sense to disconnect the slow and uneven spread of literacy and political voice from a colonial legacy of racial and ethnic discrimination.”

Data on land inequality across the world confirms its significance in Latin America. Figure 1 compares the average distribution of the Gini coefficient for land ownership in different regions at some point during the 20th century. The difference between South America (and to a lesser extent Central America) and other parts of the developing world is striking. South America’s mean Gini was 20 points higher than the world average and double than in East Asia.

This emphasis on land is usually linked to the negative implications of export specialization in commodities. Structuralist economists have always emphasized the distributional costs of primary specialization (Rodríguez Weber, 2018). According to Fajnzylber (1990: 78), “the supply of natural resources, which in many countries is concentrated in a small proportion of the population or centralized in public enterprise, often has a negative influence on the income-distribution process.” The impact of rent concentration on politics partly explained this negative relationship (Prebisch, 1976). Some neoclassical economists have also highlighted the negative consequences of Latin America’s specialization in mineral extraction and permanent agriculture, including coffee, sugar, and other tropical products (Leamer et al., 1999).

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2 A growing literature in political economy has emphasized the negative relationship between ethnic diversity and various positive development outcomes such as a large provision of public goods or low amounts of violence (e.g., Habyarimana et al., 2007). In this literature, it is the existence of a diversity of groups with different preferences and levels of solidarity that creates problems. However, my argument here is different: it starts with the fact that a small white elite used race and ethnicity to discriminate against others. This process of exploitation was easier when it confronted an indigenous and/or black majority than when the country also had a large white middle class.
Explaining Differences Within the Region

Let’s now move from the regional model to the within-region comparison. In building an analytical model to explain the long-term distributional differences between Latin American countries, I use two interconnected starting points: the explanation of the region’s inequality just discussed and power-resource theory. The stylized model of inequality in Latin America is summarized in Figure 2. High land inequality together with commodity specialization and the exploitation of indigenous people and afrodescendants strengthened the economic elites, who then shaped economic policy and institutions in their favor. They pushed for low taxes and social
spending and demanded support for their preferred economic sectors (Bulmer-Thomas, 2014; Thorp, 2012; World Bank, 2004).

**FIGURE 2**

**LONG-TERM DETERMINANTS OF INEQUALITY IN LATIN AMERICA**

- Control over land in the context of primary specialization
- Specialization in natural resources
- Large (exploited) indigenous population

Is this model equally influential across the region? What explains diversity in the outcome? What are the necessary and sufficient conditions to be part of the group of “relatively equal countries” within Latin America? Starting from the top, having a relatively low indigenous and afrodescendant population may constitute a necessary condition for relatively low inequality.
This kind of social structure allowed a few countries to avoid the problems of the rest. In most of Latin America, the process of colonization was built on a rigid racial hierarchy and the oppression of indigenous people and black slaves. After independence, the new states aimed to overcome these racial differences by pushing for a project of mestizaje. In their attempt to strengthen the nation, the elites promoted the idea that most people were of mixed race and that Latin Americans were less racist and more integrated than other regions (Hernández, 2012; Wade, 2003). Yet mestizaje and the existence of a “racial democracy” were a foundational myth without much support on the ground. As Holt (2003) persuasively explains, these ideas began “as an initiative of white intellectual elites… and often served to maintain the social status quo” (p. xi).

In the Andean countries, for example, a small white elite has consistently used the myth of mestizaje to separate as much as unite. In Peru, Florencia Mallon explains how “the misti, or highland mestizo, is a figure signifying domination. Mistis mediate between the city and the Indian communities by accepting privileges from the whites in order to dominate the Indians” (Mallon, 1992: 37). In Guatemala, separation between ladinos—individuals of European or mixed descent—and indigenous peoples and discrimination against the indigenous majority have been particularly acute (Caumartin and Sánchez-Ancochea, 2011).

Let me now move to the sufficient conditions. We should first consider land distribution. In theory, in those countries where land was better distributed, the elite should have been weaker—thus contributing to a better distribution of income today (Rueschmeyer, Huber and Stephens, 1992). In practice, however, land inequality has been equally high across the region: in the 1950s, the Gini coefficient for land ownership oscillated between 0.69 in Mexico and 0.86 in Chile (figure 3)—in all cases well above levels in other parts of the Global South.

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3 Mallon (1992) contrasts the case of Peru and Bolivia (where whiteness and the indigenous ethnicities were constructed as opposite) to Mexico, where the mestizo project was more unifying and somewhat less exclusionary.
Instead, we must consider the role of different primary exports. Oil and mining and, to a lesser extent, tropical products are particularly pernicious for income distribution because they lead to highly concentrated rents in the hands of a few and create few linkages to other sectors. By contrast, cattle and some food staples have the potential for more positive impacts on income distribution, contributing to the development of new sectors (Bértola and Ocampo, 2012; Bulmer-Thomas, 2014). These sectors can also diversify the sources of wealth, thereby leading to the emergence of new elites. We should thus expect countries historically specialized in goods with many linkages, those where export production was in the hands of small producers, and those with a more diversified export basket to be less unequal than others (see Appendix 1 for a further explanation).

Power resource theory highlights the role of countervailing forces that push back against the influence of the elite to explain variance in income distribution (Fairfield, 2015; Korpi, 1983; Stephens, 1979). In developing countries like those in Latin America, having democratic institutions is important to deliver relatively low inequality. Democracy may empower otherwise excluded members of the population and contribute to more open political institutions. Yet
democracy by itself is not enough (Acemoglu et al., 2015; Albertus, 2015; Scheve and Stasavage, 2017). This is because its main effects are indirect: democratic institutions create opportunities for leftist leaders and contribute to a more equal distribution of political power in society (Huber and Stephens, 2012a). As such, I expect paths to low inequality to include political equality and/or a tradition of leftist presidents in power. In emphasizing these political processes, I build on the work of Huber et al. (2006), who showed that democratic institutions and progressive parties were essential to explain variance in income distribution across Latin America for the period 1970 to 2000.4

Notice that I assume that these political institutions have an cumulative effect on income distribution: for example, democracy will not only shape policies in t₀ but will also influence the evolution of the institutional environment in subsequent periods—even if there are dictatorship discontinuities in the middle.5 In the same way, progressive presidents do not only impact income distribution through short-term policies but through a deeper influence on institutions and socio-political expectations.

In conclusion, we have two hypotheses to consider:

**H1:** A relatively small indigenous/afrodescendant population is a necessary condition for relatively low inequality in Latin America.

**H2:** Positive export specialization OR democratic traditions, political equality, and leftist presidents constitute two sufficient condition paths (an economic one and a political one).

**METHODOLOGY: WHY QUALITATIVE COMPARATIVE ANALYSIS (QCA)**

This paper aims to explain structural differences between countries over the long run. As mentioned at the beginning of the paper, income distribution tends to be systematically different

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4 Huber et al. (2006) were—like me—interested in explaining variance in the Gini coefficient across Latin American countries. To do so, they used an unbalanced panel for a period of thirty years and included various economic, political, and social variables, including the ethnic composition of the population, employment in agriculture, land inequality, and various political variables. My paper extends (and complements) their analysis by using a different methodology, which allows me to pay more attention to the characteristics of the cases; consider the role of export specialization; include the role of net transfers and social programs when measuring income distribution; and pay more attention to the interaction between different economic, social, and political processes.

5 Authoritarian interruptions reshape the distribution of political power but do not fully invalidate the inheritance of democracy. This is evident, for example, in the case of Chile. The Pinochet dictatorship weakened progressive parties and trade unions, and its policies contributed to a dramatic increase in inequality (Palma, 2011). Yet the previous democratic tradition explains the continuing influence of the opposition and the strength of democracy after the transition in 1990.
across cases: some countries and regions have been more unequal than others for decades. According to Li, Squire, and Zou (1998: 27), “inequality is determined by factors which differ substantially across countries but tend to be relatively stable within countries…An initial state of inequality may be expected to continue because the rich have the capacity to protect their wealth while the poor are unable to augment theirs.” Additionally, I am not interested in measuring the marginal effect of various independent variables, but in testing the constellation of forces that explain the “relatively low inequality” outcome within Latin America. This analysis tries to identify long-term, historical drivers and not short-term changes.

Given these objectives, it is important to consider alternatives to the (dominant) econometric tools. Most quantitative studies on this topic rely on fixed effects, thus evaluating the process of change within countries over time instead of country differences. Even those that do not implement this technique (e.g., Huber et al., 2006) use unbalanced panel data, which gives different weights to the various countries. Econometric studies also require annual data for both the dependent and independent variables, including ethnicity and land inequality—data we do not have in the Latin American context. In this research the “n” is also small, as there are only 18 countries. Additionally, econometric analysis assumes that we can separate the effect of different variables when, in practice, there are significant problems of multicollinearity.

QCA can be a useful methodology in this context. First proposed by Charles Ragin (1987, 2000, 2008), it uses Boolean algebra to explore complex causal relations between an outcome and a series of conditions. QCA relies on case knowledge while considering more than a handful of cases. It avoids taking problematic quantitative data at face value, forcing researchers to instead think about categories, order observations, and contrast numbers with secondary literature. QCA also acknowledges the existence of multiple ways to reach a given outcome—i.e., equifinality—and the prevalence of asymmetric causation—i.e., the factors that explain a phenomenon are different that those explaining its absence (Collier and Dunning, 2014; Ragin, 2008).

Of course, QCA is not without problems. Critics coming from the quantitative tradition have argued that the approach is deterministic, leads to arbitrary results, and is dependent on a

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6 The quality of some of the distributional data is also questionable and should not be introduced uncritically in an econometric equation. Ideally, the chosen methodology should allow us to measure the outcomes quantitatively but also evaluate its validity qualitatively (triangulating different sources when needed).
large number of subjective decisions (Krogslund, Donghyun, and Poertner, 2015; Lucas and Szatrowski, 2014). Some qualitative researchers have questioned its excessive emphasis on necessary and sufficient conditions and set theory, worrying that QCA often fails to provide interesting insights (Collier and Dunning, 2014).

These are all valid points: we should be careful not to exaggerate the capacity of QCA to provide definite causal explanations. Yet I believe QCA is useful in this case because it allows us to compare the 18 countries systematically, explore empirical patterns, and consider the interaction between a small number of social, political, and economic factors. In this way, it can question some long-held assumptions, encourage comparative thinking, and highlight the role of variables like ethnicity and race. I have tried to minimize the negative features of QCA by being particularly careful and transparent in the calibration process and always keeping the cases in mind when undertaking the analysis.

While I leave a detailed description of sources and methodology (including calibration decisions) for the appendixes, let me briefly discuss here the indicators and the calibration results. Since my analytical model builds a sequential explanation, I use data from different periods for the various variables (see Table 1). For example, I am not concerned with export specialization during the whole period but only at the beginning of the transformation process when the power of the elite and the rentier political economy model emerged. In contrast, the effect of the democratic tradition and progressive forces is cumulative, which is why I do not evaluate them at a single point in time. Instead, I measure their presence or absence during the entire 20th century and the early 21st.

At the same time, I am partly constrained by the availability of comparative sources in some areas. For example, I use data from the 1990s and early 2000s for the ethnic composition of the population, assuming that this variable was stable during the whole period and, more importantly, that changes were not more significant in some countries than others.
TABLE 1

CONDITIONS TO EXPLAIN RELATIVELY LOW INEQUALITY AND INDICATORS USED

<table>
<thead>
<tr>
<th>Sphere</th>
<th>Conditions</th>
<th>Outcome contributing to relatively low inequality</th>
<th>Meaningful period</th>
<th>Source</th>
<th>Years of the data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic drivers</td>
<td>Favorable export specialization</td>
<td>Specialization in primary exports with more linkages</td>
<td>First half of the 20th century</td>
<td>See Appendix 1</td>
<td>Circa 1950s</td>
</tr>
<tr>
<td>Political drivers</td>
<td>Democratic tradition</td>
<td>Dominance of democratic regimes</td>
<td>Cumulative, whole period</td>
<td>Mainwaring and Pérez-Liñán (2013)</td>
<td>1900–2010</td>
</tr>
<tr>
<td></td>
<td>Political equality</td>
<td>Better distributional of power among socioeconomic groups</td>
<td>Cumulative, whole period</td>
<td>Coppedge et al. (2018)</td>
<td>1900–2017</td>
</tr>
<tr>
<td></td>
<td>Left-of-center presidents</td>
<td>Progressive presidents in power</td>
<td>Cumulative</td>
<td>Huber and Stephens (2012b)</td>
<td>1945–2010</td>
</tr>
<tr>
<td>Social drivers</td>
<td>Ethnic composition</td>
<td>Low share of indigenous and afrodescendant population</td>
<td>Long term patterns</td>
<td>Telles (2014)</td>
<td>2000s (but assumes stable values over the long run)</td>
</tr>
</tbody>
</table>

The process of calibration consists of assigning a membership score from 0 to 1 to all the variables (Schneider and Wagemann, 2013). The goal is to determine which countries meet each condition fully, in which countries the condition is totally absent, and where to place the crossover point. To build each of the sets, I use quantitative indicators, relying on my knowledge of the cases to select the cutoff points (see the Appendix 1). Table 2 includes the results for all the conditions, which are then incorporated in the truth table to determine the necessary and sufficient conditions.
TABLE 2

SET SCORES FOR EACH CONDITION AND OUTCOME PER COUNTRY

<table>
<thead>
<tr>
<th>Country</th>
<th>Favorable export specialization (EXP_c)</th>
<th>Low indigenous and Afro-descendant population (ETHN_c)</th>
<th>Strong democratic tradition (DEM_c)</th>
<th>Political equality (PE_c)</th>
<th>Left-of-center presidents. (LEFT-c)</th>
<th>Relatively low inequality (INEQ_c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>1.00</td>
<td>0.96</td>
<td>0.67</td>
<td>0.78</td>
<td>0.01</td>
<td>1.00</td>
</tr>
<tr>
<td>Bolivia</td>
<td>0.00</td>
<td>0.04</td>
<td>0.17</td>
<td>0.74</td>
<td>0.86</td>
<td>0.24</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.60</td>
<td>0.01</td>
<td>0.51</td>
<td>0.45</td>
<td>0.79</td>
<td>0.20</td>
</tr>
<tr>
<td>Chile</td>
<td>0.00</td>
<td>0.84</td>
<td>0.96</td>
<td>0.57</td>
<td>0.58</td>
<td>0.42</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.60</td>
<td>0.76</td>
<td>0.59</td>
<td>0.06</td>
<td>0.01</td>
<td>0.04</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.60</td>
<td>0.86</td>
<td>0.99</td>
<td>0.70</td>
<td>0.97</td>
<td>0.64</td>
</tr>
<tr>
<td>DR</td>
<td>0.30</td>
<td>0.36</td>
<td>0.22</td>
<td>0.23</td>
<td>0.54</td>
<td>0.17</td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.40</td>
<td>0.74</td>
<td>0.55</td>
<td>0.27</td>
<td>0.11</td>
<td>0.60</td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.30</td>
<td>0.97</td>
<td>0.05</td>
<td>0.03</td>
<td>0.02</td>
<td>0.76</td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.30</td>
<td>0.18</td>
<td>0.04</td>
<td>0.08</td>
<td>0.11</td>
<td>0.07</td>
</tr>
<tr>
<td>Honduras</td>
<td>0.00</td>
<td>0.93</td>
<td>0.08</td>
<td>0.03</td>
<td>0.36</td>
<td>0.01</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.40</td>
<td>0.67</td>
<td>0.03</td>
<td>0.24</td>
<td>0.01</td>
<td>0.35</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>0.40</td>
<td>0.88</td>
<td>0.04</td>
<td>0.04</td>
<td>0.19</td>
<td>0.31</td>
</tr>
<tr>
<td>Panama</td>
<td>0.60</td>
<td>0.46</td>
<td>0.52</td>
<td>0.24</td>
<td>0.11</td>
<td>0.13</td>
</tr>
<tr>
<td>Paraguay</td>
<td>0.70</td>
<td>0.94</td>
<td>0.01</td>
<td>0.07</td>
<td>0.02</td>
<td>0.11</td>
</tr>
<tr>
<td>Peru</td>
<td>0.00</td>
<td>0.22</td>
<td>0.32</td>
<td>0.33</td>
<td>0.62</td>
<td>0.14</td>
</tr>
<tr>
<td>Uruguay</td>
<td>1.00</td>
<td>0.80</td>
<td>0.96</td>
<td>0.97</td>
<td>0.69</td>
<td>0.76</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.00</td>
<td>0.92</td>
<td>0.61</td>
<td>0.69</td>
<td>0.98</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Source: See Appendix 1.

MEASURING THE DEPENDENT VARIABLE

In this section, I order countries in terms of inequality, defining the outcome variable as “relatively low inequality within an unequal environment.” The process of ordering constitutes a useful exercise in itself and a secondary contribution of the paper. Following the principles of QCA, my goal is to think about significant differences within the continuum of Latin American countries. The common claim that income distribution is high across the whole continent is insufficient; we must also systematically consider differences within the region.

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7 This ranking constitutes a first approximation of this question and builds on historical research that is also trying to account for systematic differences (see, for example, Rodriguez Weber, 2018).
8 The underlying principle of this study of the structural patterns of inequality is that there may be qualitatively significant differences between countries. Capitalist societies may be inherently unequal, but some countries have succeeded in reducing those “natural” gaps while others have not. In the OECD literature, we usually consider Scandinavian countries examples of “equal” countries and the United Kingdom and, especially, the United States as “unequal” ones.
9 I include all countries in the continent where Spanish or Portuguese is spoken plus the Dominican Republic. I exclude Cuba because its historical trajectory in the 20th century has been very different and because of the lack of
A proper discussion of the political economic determinants of income distribution must consider the state’s redistributive power. The impact of democratic institutions takes place primarily through the influence of voters and interest groups on net transfers and social services. The best-known databases—such as the Socio-Economic Database for Latin America and the Caribbean (SCEDLAS), produced jointly by the University of la Plata and the World Bank—do not include the value of social services such as health and education when measuring the final distribution.

Fortunately, we now have data on the Gini coefficient before and after taxes, transfers, and social services, thanks to studies from the Commitment to Equity (CEQ) research group led by Nora Lustig. Although their data is based on a single year (around 2010), I prefer it to longer-term data because of the inclusion of all income sources, including in-kind public services.

Figure 4 includes the Gini coefficient before and after state redistribution. The ordering of countries remains broadly similar with just a few significant changes as a result of public intervention. In particular, Argentina, Brazil, Costa Rica, and Panama improve their Gini more than the average, while Honduras, Guatemala, and Peru are the worst performers in terms of redistribution.

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10 See http://commitmenttoequity.org/.

11 Distributional data is generally poor for cross-country comparisons. Székely and Hilgert (2007) show how household surveys from different countries vary in sample size, treatment of missing data, and definition of income sources, and how these decisions significantly influence regional rankings. Also, household surveys do not incorporate income from the wealthy effectively. Yet notice that these measurement issues are equally problematic when undertaking econometric research. Much of the variance these studies aim to explain may result exclusively from statistical noise. In fact, one could argue that QCA’s attention to the cases and implicit triangulation with a variety of sources makes these measurement shortcomings less worrying than in quantitative research.
Figure 4

GINI COEFFICIENT BEFORE AND AFTER STATE REDISTRIBUTION, CIRCA 2010

Note: The Gini coefficient for income before transfers and social services includes pensions.
Source: CEQ database.

The process of calibration requires ordering countries based on the extent to which they meet the outcome “relatively equal within an unequal region.”\(^\text{12}\) There are three important cutoff points: countries that fully meet this outcome (receiving a score of 1 or close to 1), countries that do not meet this outcome at all (receiving a score of 0 or close to 0), and the separation point between countries that are more in than out. As the only two cases with a Gini for income after transfers and social services below 0.35, Argentina and Venezuela are the closest to OECD countries. They are thus the only ones that fully meet the requirement of relatively low inequality. With a Gini after redistribution above 50 (after taxes and transfers), Colombia and Honduras are two of

\(^{12}\) Goertz (2018) recommends defining concepts as ideal types and then determining how close cases are to the types. This could be done by defining high inequality as a situation where the elite controls as much income as economically possible—an ideal akin to the maximum inequality extraction ratio (Milanovic 2009; 2013). Yet calculating this relationship for all Latin American countries is difficult due to data limitations.
the most unequal countries in the world and receive a score of 1. To determine the middle cutoff point, I consider the fact that much of the literature agrees that Costa Rica has been historically more equal than Chile. I thus place Costa Rica in the group “more in than out” and Chile in the group “more out than in.” The results are presented in Figure 5.

FIGURE 5

CALIBRATION OF THE GINI COEFFICIENT

Source: Author’s elaboration based on data from Figure 1.

It is useful to compare my ordering with the grouping that Leonardo Gasparini—one of the top researchers on inequality in and on Latin America—proposes based on SCEDLAS data. In an unpublished manuscript, he identifies four groups (Gasparini, 2019):

- Argentina and Uruguay as the most equal countries.
- A second group with low inequality by regional standards includes El Salvador, Peru, Dominican Republic, Costa Rica, and Venezuela—with some doubt about the last two cases due to recent problems.
- A third group with medium/high inequality by Latin American standards includes Chile, Mexico, and Ecuador, with Nicaragua and Bolivia as recent additions.
- The group of most unequal countries includes Brazil, Colombia, Paraguay, Panama, Honduras, and Guatemala.
Both classifications are similar at the bottom and the top but have some differences in the middle groups. These differences primarily result from the inclusion of in-kind income from social services. Chile, Costa Rica, Mexico, and Ecuador redistribute more income through this channel than the Latin America average, thus improving their relative position in my ranking. In contrast, Bolivia, Dominican Republic, Nicaragua, and Peru redistribute less than the average and, as a result, perform poorly in my ranking.\(^{13}\)

**A LOW INDIGENOUS/AFRODESCENDANT POPULATION AS A NECESSARY CONDITION**

In this section I evaluate Hypothesis 1 to determine whether there are other necessary conditions for relatively low inequality. To do so, we need to consider the consistency of each dimension separately (see Appendix 1). According to most experts, necessary conditions should have a consistency above 0.9 (Dușa, 2018; Ragin, 2008). For cases with the right consistency, I then evaluate the coverage, which should be above 0.5.

Table 3 presents these two indicators for the five factors. There is only one necessary condition: the existence of a low share of the indigenous and afrodescendant population.\(^{14}\) This finding is consistent with my analytical model, confirming the importance of ethnicity and race.

Figure 6 draws the calibration for the race/ethnicity variable together with the distributional outcome. It confirms the consistency of the relationship: almost all cases have an equal or higher level of inclusion in the “low indigenous and afrodescendant population” set than in the “relatively low inequality” set. The two exceptions (Bolivia and Brazil) are not far from the 90-degree line.

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\(^{13}\) The shift in the ranking as a result of redistribution is consistent with the expectations from the literature on welfare regimes. Chile, Costa Rica and, to a lesser extent, Mexico have more advanced social policy regimes than the average Latin American country, while Bolivia, Dominican Republic, Nicaragua, and Peru are consistently placed among the worst performing countries (Huber and Stephens, 2012a; Martínez Franzoni, 2008a and 2008b; Pribble, 2011; Segura-Ubiergo, 2007).

\(^{14}\) The reader should remember that a low share of the indigenous and afrodescendant population is not the same thing as a low share of the non-white population. This is so because the number of mestizos—who are neither white nor purely indigenous/afrodescendants—is high across the region.
### TABLE 3

**CONSISTENCY AND COVERAGE FOR ALL POTENTIAL SINGLE NECESSARY CONDITIONS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Consistency</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable export specialization</td>
<td>0.64</td>
<td>0.62</td>
</tr>
<tr>
<td>Low share of indigenous/afrodescendant population</td>
<td>0.93</td>
<td>0.56</td>
</tr>
<tr>
<td>Democratic tradition</td>
<td>0.67</td>
<td>0.64</td>
</tr>
<tr>
<td>Political equality</td>
<td>0.71</td>
<td>0.76</td>
</tr>
<tr>
<td>Left-of-center presidents</td>
<td>0.58</td>
<td>0.58</td>
</tr>
</tbody>
</table>

Figure 7 correlates the values for the Gini coefficient with the share of the indigenous and afrodescendant population. The figure provides an informative graphical representation of the role of race and ethnicity in income distribution. All countries with a Gini below the Latin American average also have an indigenous and afrodescendant population that is below the average. Of course, the opposite relationship is not valid: countries with high inequality can have both low and high shares of these population groups.
FIGURE 6

LOW SHARE OF THE INDIGENOUS AND AFRODESCENDANT POPULATION AS A NECESSARY CONDITION

Inclusion: 0.928  Coverage: 0.559  Relevance: 0.558

Source: Author’s elaboration with data discussed in Appendix 1.
The earlier section on the analytical model discussed why I expect a relationship between ethnicity/race and relatively low inequality. Racial and ethnic discrimination are deep-seated problems that have historically contributed to elite dominance and impoverish large segments of the population (Hall and Patrinos, 2005). In countries like Argentina and Uruguay, where indigenous peoples and afrodescendants are a minority, there are fewer opportunities for racism.

An even more important factor has to do with the opportunity to build a strong working-class identity and inter-class solidarity. This is important in its own right—a common identity can facilitate collaboration at the community level—but also for its impact on the balance of political power. As Alesina and Glaeser (2004: 134) explain for the US case:

“when there are significant numbers of minorities among the poor, then the majority population can be roused against transferring money to people who are different from themselves. Another way of thinking about racial or ethnic divisions is that the proponents of the welfare state generally attempt to draw distinctions between economic
classes. Racial, religious, and ethnic divisions distract from those distinctions and reduce the ability to forge a common class-based identity.”

In countries like Argentina, Chile, Uruguay, and Venezuela, the dominance of the white population has allowed politics to focus on class; by contrast, in other places, like Bolivia or Guatemala, ethnic diversity has decreased the chances of building stronger working-class coalitions.

In countries in the latter group, powerful economic (and political) elites have often used racism as a dividing mechanism (Sánchez-Ancochea, forthcoming). Take the case of Guatemala. After a long and violent civil war, the government and the guerrillas signed a Peace Accord in 1996. Three years later, a referendum on an agenda for modernization and (moderate) redistribution was organized. Fearing its consequences, the business elite spent millions of dollars on a “No” campaign. They advanced one racist argument after another: that Guatemala would become an indigenous state, that non-indigenous people would be marginalized, that the referendum would enhance the rights of a minority at the expense of everyone else. Sadly, their strategy succeeded: only 18.5 percent of the electorate went to the polls and the “No” vote prevailed by a margin of 55 to 45 percent (Jonas, 2000). More recently, in Bolivia, the interim government that ousted Evo Morales in 2019 has been accused of using racist symbols and racial divisions have intensified (El País de Uruguay, 2019).

The fact that a low indigenous and afrodescendant population has been a necessary condition for relatively low inequality in Latin America does not mean than countries with a high share of these groups will never improve their income distribution. This claim would be too deterministic. Yet there is little doubt that moving towards more equity will be particularly hard in countries like Brazil, Guatemala, or Peru. It may demand a particular effort to overcome ethnic divisions and build inter-ethnic coalitions—something the Morales administration tried to do in Bolivia with some success for more than a decade.
SEARCHING FOR SUFFICIENT CONDITIONS

Figure 8 reflects the two paths to the sufficient condition. Both have three elements in common: democratic tradition, political equality, and ethnicity. The two paths differ in only one condition: while one path includes a favorable export structure, the other involves a tradition of leftist presidents.

FIGURE 8

TWO PATHS TO THE SUFFICIENT CONDITION

DEM_c*PE_c*ETHN_c

*EXP_c
(ARG, CR, UR)

*LEFT_c
(CH, CR, UR, VE)

These findings are rather interesting. They highlight the importance of politics. Contrary to my expectations at the beginning of the paper, having “better” exports by itself is not enough to deliver a less unequal income distribution; countries also need the “right” institutions and some level of political equality. Democracy is not important in itself except to the extent that it contributes to redistribute political power among different groups. It can create space for social movements and increase the voice of low-income groups, thus limiting the power of the elite over the long run. In this way, democracy often contributes to more redistributive labor and social policies (Martínez Franzoni and Sánchez-Ancochea, 2016).

These results also suggest that progressive governments may be particularly important in commodity-exporting countries, where natural resource rents have always been highly concentrated, and the state has played a central role in their (re)distribution. This process of redistribution is more likely to favor large segments of society—and not just the elite—when progressive governments are in power.

Consider the case of Chile. A major nitrate exporter during the 19th century, it later became a leading copper producer. For most of the 20th century, copper was responsible for more than half of total export revenues and exerted a major influence on macro-performance (Thorp, 1998). The sector, controlled by large American corporations until the 1970s, was initially lightly
taxed. Yet the arrival of the leftist Popular Front to power in 1938 triggered a significant policy shift. In 1938, the government created the Production Development Corporation (“Corporación de Fomento de la Producción,” or CORFO), funded with a 15 percent tax on copper profits (Gedicks, 1973). CORFO’s goal was to diversify the economy, expanding manufacturing production and creating new opportunities for Chilean workers. Successive progressive administrations increased the tax burden on copper steadily, and in the 1960s the left proposed the sector’s nationalization. Not surprisingly, income inequality decreased significantly between 1940 and 1970, particularly when progressive governments were in power—as demonstrated by Javier Rodríguez Weber’s pathbreaking research (Rodríguez Weber, 2017a, 2017b).

Readers may raise at least two questions about these findings. First, we may be dealing with an example of reverse causality: it could be that a better initial distribution of income led to the consolidation of democracy over the long run and not the other way around. However, there are at least two reasons to believe that this is not the case. While Argentina and Uruguay probably had some of the lowest levels of inequality within Latin America at the beginning of the 20th century, Chile and Venezuela did not (Astorga, 2017; Bertola et al., 2010; Rodríguez Weber, 2018). The comparison between Colombia and Chile is particularly illustrative: according to Rodríguez Weber (2018), the former had a lower Gini coefficient in the early 1900 but experienced a significant distributional deterioration during subsequent decades. The extent to which Costa Rica was an exceptional country at the beginning of the 20th century is also questionable (Martínez Franzoni and Sánchez-Ancochea, 2013).

Moreover, the emergence and survival of democracy in Latin America in the last century had more to do with the preferences and behavior of political and social actors than with structural variables like income inequality and economic development. In their review of Latin America’s democratic history since the 1930s, Hartlyn and Valenzuela (1995: 102) argue that “cultural and socio-economic factors… taken alone cannot account for the significant variation in the experience with democratic development in the hemisphere and are particularly incapable of accounting for notable deviant cases” like Chile. Mainwaring and Pérez-Liñán (2013) confirm that income distribution is not statistically significant to explain democracy in the region.

Second, could income distribution, democracy, and the presence of progressive forces be explained together by other variables? Several authors highlight distance to the center of colonial power as a key factor in explaining how extractive subsequent institutions were (Mahoney, 2003;
Acemoglu, Johnson, and Robinson, 2001). Yet extractive institutions were present in the 19\textsuperscript{th} century in some countries that belong to this sufficient-condition path. For example, Chile was no less extractive than the rest of Latin America, given the power of a small landowning elite who benefited from a feudal socio-economic system (Albertus, 2015: 28). In fact, Hartlyn and Valenzuela (1995: 102) regard this country as “one of the most traditional and ‘dependent’ societies in the region” at the beginning of the 20\textsuperscript{th} century.\textsuperscript{15}

CONCLUSION

In this paper I have explored the long-term determinants of differences in income distribution within Latin America—thus following and contributing to a literature that studies long-term development outcomes in the region (Mahoney, 2010; Kurtz, 2013; Soifer, 2015). I have identified necessary and sufficient conditions behind relatively low levels of inequality based on a small number of political, economic, and social drivers. In doing so, I aimed to shed light on the factors that explain less inequality within unequal environments.

QCA confirmed my initial expectations that a low share of indigenous people and afrodescendants is a necessary condition for relatively low inequality. There are both social and political explanations for this finding. On the one hand, there is less discrimination in the labor market in countries dominated by white workers. On the other hand, creating strong political coalitions within the working class and between the working class and the middle class is easier when ethnic heterogeneity is low.

The analysis of the sufficient conditions showed the importance of politics for income redistribution. Democracy and political equality appeared in both of the paths towards relatively low-income inequality in Latin America, combining with either favorable exports or with leftist parties in power. The existence of these two paths makes sense: state control by progressive actors may be particularly important in commodity-dominant economies where rents are highly concentrated. Our analysis also showed that, given its limited variance, land distribution is not a significant factor to explain distributional differences within Latin America.

\textsuperscript{15} Of course, I do not want to suggest that differences in the colonial experience have been irrelevant. For example, they can partly explain variance in the ethnic composition of the population—which is directly related to income distribution.
How should we simultaneously account for these country differences and the regional common patterns? And how can we explain that even the most successful Latin American countries are still highly unequal by international standards? Let me offer some a tentative answer to these questions. Across the region, the combination of primary dependence, land inequality, and powerful elites has resulted in a skewed income distribution over the long run (Rodríguez Weber, 2018). Since independence, the economic model has been organized to favor a small elite, which has remained powerful across the region. At the same time, in a few exceptional cases—all countries with a small indigenous/afrodescendant population—some countervailing forces emerged: when democratic institutions contributed to political equality between classes—partly as a result of the strength of trade unions and other social movements—and progressive political leadership and income distribution became less uneven. Unfortunately, the power of these countervailing forces was rather limited; the most equal countries in Latin America still have a worse distribution of income than most other parts of the world.

By combining a regional perspective with an exploration of differences between countries—a popular approach in Latin American Studies in the past (Roxborough, 1984)—this paper raises as many questions as it provides answers. It calls for further research on the interactions between democracy, progressive forces, and income distribution. To what extent is it true that the emergence and development of democratic institutions was independent from distributional conflicts? What are the channels through which these political forces have contributed to less inequality? How does the “trade off” between more favorable exports and progressive governments work comparatively?

Future work should also consider the way race and ethnicity influences income distribution. Following the work of Alesina and Glaeser (2004) and others, I have argued that the racial/ethnic composition of the population may influence the opportunities to create strong working-class movements and successful inter-class coalitions. Yet there may be other factors (from the culture of discrimination to the role of whiteness) that have played an important role as well.

The paper also highlights how difficult the fight against inequality will be in many parts of the world. Racism and discrimination are significant obstacles to equality and hard to overcome even in democratic environments. Power asymmetries between different groups in society remain high across Latin America and powerful elites still dominate politics.
Nevertheless, the consolidation of democracy and periodic victories of left-wing parties across the region are optimistic signs—and partly explain improvements in the Gini during the 2000s. A further deepening of democratic institutions and a gradual weakening of economic elites may constitute the 21st century’s best hope of slowly reversing Latin America’s long history of inequality.
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APPENDIX 1

EXPLANATION OF CQA AND CALIBRATION OF THE DRIVERS

I start this appendix with a short explanation of QCA for those unfamiliar with the methodology. QCA can be organized in three steps. The first step involves calibrating all the variables and assigning a membership score from 0 to 1 to all conditions and the outcome. Following recommendations from Ragin (2008) and Schneider and Wagemann (2013), I calibrate the data using a logistic function with a S-shape. I explain all calibration decisions below.

The second step in QCA requires exploring whether there are any necessary conditions. A condition is necessary when every time the outcome (in this case relatively low inequality) is present, the condition is also present (Schneider and Wagemann, 2013: 69). Formally, a condition X is necessary for an outcome Y when X ≥ Y for all cases. Because it is hard to meet this condition in every instance, in practice we use more relaxed criteria based on two measures of fit: consistency and coverage.

Consistency evaluates the extent to which the condition X ≥ Y is met. The measure also considers the extent to which there are small or large differences between the two values. Ideally, a necessary condition should have a consistency value of 0.9 or more (Duşa, 2018).

Coverage is used to determine the extent to which the necessary condition is significant or trivial. A condition is trivial when it is present in many more instances than when the outcome takes place. We should have a coverage of at least 0.5 to consider the necessary condition significant (Duşa, 2018).

The last step of the QCA is to move from the necessary to the sufficient conditions, looking for a constellation of forces that when present guarantee the presence of the outcome. To identify them, I use a truth table that summarizes all the potential combinations of conditions and the extent to which they result in the outcome or not (see Ragin, 2008, or Schneider and Wagemann, 2013, for more details). I then apply the concepts of consistency and coverage as well as logical minimization to determine the solutions and interpret them theoretically.

Let me now discuss how each of the conditions was calibrated.

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16 The analysis is undertaken in R using the software package designed by Adrian Duşa and described in Duşa (2018).
17 Consistency of a necessary condition is calculated with the following formula (Ragin, 2008): \( \frac{\sum_{i=1}^{n} \min(X_i, Y_i)}{\sum_{i=1}^{n} X_i} \)
18 Coverage of a necessary condition is calculated with the following formula (Schneider and Wagemann, 2013): \( \frac{\sum_{i=1}^{n} \min(X_i, Y_i)}{\sum_{i=1}^{n} Y_i} \)
19 For sufficient conditions the definitions of consistency and coverage are inverse. Consistency is defined as \( \frac{\sum_{i=1}^{n} \min(X_i, Y_i)}{\sum_{i=1}^{n} X_i} \) and coverage is defined as \( \frac{\sum_{i=1}^{n} \min(X_i, Y_i)}{\sum_{i=1}^{n} Y_i} \).
1. A FAVORABLE EXPORT SECTOR (EXP_C)

This variable aims to account for the distributional implications of different sectors. Drawing on the literature of the “commodity lottery,” I consider the fact that some exports create more linkages to the rest of the economy than others (Bulmer-Thomas, 2014; Díaz-Alejandro, 1984). For example, livestock has a positive impact on more sectors than mining products. I also consider the way specific sectors are managed: Are they managed by large landholders? By small and medium producers? This difference is particularly clear in the case of coffee and separates Guatemala and El Salvador from Costa Rica.

In contrast to the rest of the variables, I use a combination of qualitative and quantitative sources to construct this variable. This was required because the share of, say, mining exports does not fully account for the positive and negative implications of exports I consider. I rely on various historical sources, including Bértola and Ocampo (2012), Bulmer-Thomas (2014), Frankema (2009) and Thorp (1998). The table below summarizes some of the information collected from Thorp (1998) and Frankema (2009) and used for the classification:

### TABLE A1

**INFORMATION ON EXPORT SPECIALIZATION, FIRST HALF OF THE 20TH CENTURY**

<table>
<thead>
<tr>
<th>Country</th>
<th>Early 1900s</th>
<th>Post-war era, 1950s and 60s</th>
<th>Top two exports in the 1960s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Extensive agriculture with linkages to other sectors</td>
<td>Early industrialize but with agriculture as dominant export</td>
<td>Meat and cereals</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Classical mining economy</td>
<td>Mining and oil</td>
<td>Tin ore and silver</td>
</tr>
<tr>
<td>Brazil</td>
<td>Coffee as an engine of growth and with growing alliance with manufactures</td>
<td>Coffee plus one of the region’s key exporters of manufactured goods</td>
<td>Coffee, fibers</td>
</tr>
<tr>
<td>Chile</td>
<td>Classical mining economy with some manufacturing interest</td>
<td>Early industrialize but with copper as dominant export</td>
<td>Mining</td>
</tr>
<tr>
<td>Colombia</td>
<td>Coffee together with gold</td>
<td>Industrialization linked to coffee—which remains dominant export</td>
<td>Coffee, oil</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Coffee and, to a lesser extent, bananas</td>
<td>Coffee, bananas and some new agricultural exports</td>
<td>Coffee, bananas</td>
</tr>
<tr>
<td>DR</td>
<td>Sugar and cocoa</td>
<td>Sugar and emergence of export processing zones</td>
<td>Sugar, coffee</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Export sector dominated by cocoa, although with other regionally important</td>
<td>Various agricultural exports</td>
<td>Bananas, cocoa</td>
</tr>
<tr>
<td>El Salvador</td>
<td>Coffee, sugar, rice, cotton and clothing</td>
<td>Coffee and some new agricultural exports</td>
<td>Coffee, cotton</td>
</tr>
<tr>
<td>Guatemala</td>
<td>Coffee</td>
<td>Coffee and some new agricultural exports</td>
<td>Coffee, textile fibres</td>
</tr>
<tr>
<td>Honduras</td>
<td>Bananas</td>
<td>Banana and some new agricultural exports</td>
<td>Banana, coffee</td>
</tr>
<tr>
<td>Mexico</td>
<td>Mining and some agricultural products like coffee</td>
<td>Mining, agriculture and some manufacturing</td>
<td>Cotton, coffee</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Coffee and other agricultural products</td>
<td>Various agricultural exports</td>
<td>Cotton, coffee</td>
</tr>
<tr>
<td>Panama</td>
<td>Coffee and income from the Canal</td>
<td>Not mentioned (but key role of the Canal)</td>
<td>Bananas, oil</td>
</tr>
<tr>
<td>Paraguay</td>
<td>Yerba mate and other agricultural products (exported primarily to Argentina)</td>
<td>Not mentioned (but key role of the Canal)</td>
<td>Meat and tobacco</td>
</tr>
<tr>
<td>Peru</td>
<td>Mining and some agricultural products</td>
<td>Primarily mining</td>
<td>Cotton, guano</td>
</tr>
<tr>
<td>Uruguay</td>
<td>Meat (anchova)</td>
<td>Early industrialize but with agriculture as dominant export</td>
<td>Wool and meat</td>
</tr>
<tr>
<td>Venezuela</td>
<td>Mining</td>
<td>Mining</td>
<td>Oil and related products</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration with data from Frankema (2009) and Thorp (1998).

Based on this information and considering three dimensions (level of linkages, type of producers, and level of diversification), we end up with the following calibration:
### TABLE A2

**CALIBRATION OF EXPORT SPECIALIZATION**

<table>
<thead>
<tr>
<th>Country</th>
<th>Calibration score</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>1</td>
<td>Export diversification in sectors like cattle that create linkages</td>
</tr>
<tr>
<td>Bolivia</td>
<td>0</td>
<td>Mining specialization</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.6</td>
<td>Coffee, with earlier manufacturing than others</td>
</tr>
<tr>
<td>Chile</td>
<td>0</td>
<td>Mining specialization</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.6</td>
<td>Coffee (with small producer participation) and mining</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>0.6</td>
<td>Coffee (with small producer participation) and bananas</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>0.3</td>
<td>Sugar and coffee</td>
</tr>
<tr>
<td>Ecuador</td>
<td>0.4</td>
<td>Bananas, coffee and cocoa</td>
</tr>
<tr>
<td>El Salvador</td>
<td>0.3</td>
<td>Coffee</td>
</tr>
<tr>
<td>Guatemala</td>
<td>0.3</td>
<td>Coffee</td>
</tr>
<tr>
<td>Honduras</td>
<td>0</td>
<td>Bananas</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.4</td>
<td>Mining but together with some agricultural products</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>0.4</td>
<td>Coffee and cotton (slightly more diversified than neighboring countries)</td>
</tr>
<tr>
<td>Panama</td>
<td>0.6</td>
<td>Coffee and income from the Canal</td>
</tr>
<tr>
<td>Paraguay</td>
<td>0.7</td>
<td>Export diversification but less dynamic than in Argentina and Uruguay</td>
</tr>
<tr>
<td>Peru</td>
<td>0</td>
<td>Mining specialization</td>
</tr>
<tr>
<td>Uruguay</td>
<td>1</td>
<td>Export diversification in sectors like cattle that create linkages</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0</td>
<td>Mining specialization</td>
</tr>
</tbody>
</table>

Source: Author’s elaboration based on various sources.

2. **THE PRESENCE OF A LARGE SHARE OF INDIGENOUS/AFRODESCENDANT (ETHN_C)**

I consulted the following four databases for this analysis: the ethnic fragmentation database (Alesina et al., 2003), which includes data from the 1980s and 1990s on different ethnic groups; the CIA, with data primarily from the early 2000s (CIA, 2018); World Bank data for the share of indigenous people circa 2015 (World Bank, 2014); and Telles (2014). In most cases these data sources were consistent; the main difficulty had to do with the different treatment of mestizos.

In the first draft of this paper presented at various conferences I used a combination of sources for this indicator. This ended up being problematic for at least two reasons. First, it was hard to justify why I chose one database for some countries but not for others. Consistency is often preferred. Second, the case of Brazil was particularly problematic; in the first iteration of
this paper, the share of the indigenous and afrodescendant population was just 9.2 percent—lower than in Chile and just two percentage points above Uruguay.

For this draft of the paper, I use Telles (2014) as the only data source for the minority indicator. His book, which discusses race and ethnicity measures and their complications in detail, relies primarily on recent censuses. It places Brazil at the top in terms of the size of indigenous and afrodescendant populations. Importantly, my change in data source did not modify the main finding: having a low indigenous and afrodescendant population is a necessary condition for relatively low inequality.

Figure A1 includes the ethnicity and race indicator and its calibration. I consider Brazil and Bolivia as countries fully outside the group having a low indigenous and afrodescendant population and Argentina and El Salvador—countries with overwhelming white populations—as fully inside the group. This means that the extreme cutoff points are 3 percent and 40 percent. Determining the middle cutoff point (that separates those countries more in than out) was harder: Given the discontinuity between Panama and Mexico, I placed it at 20 percent.

**FIGURE A1**

**CALIBRATION OF INDIGENOUS/ AFRODESCENDANT POPULATION VARIABLE**

Source: Author’s elaboration with original data from Telles (2014).

3. DEMOCRACY (DEM_C)

To define membership in the set of countries with a democratic tradition, I used data from Mainwaring and Pérez-Liñán (2013), who score each country-year with a 2 if the country was a democracy, a 1 if the country was a semi-democracy, and a 0 if there was a dictatorship. I added
all the annual scores for the period 1900–2010—the last year available for each of the countries—as seen in Table A3, below.

<table>
<thead>
<tr>
<th>Country</th>
<th>Years of democracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>99</td>
</tr>
<tr>
<td>Bolivia</td>
<td>63</td>
</tr>
<tr>
<td>Brazil</td>
<td>86</td>
</tr>
<tr>
<td>Chile</td>
<td>150</td>
</tr>
<tr>
<td>Colombia</td>
<td>92</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>179</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>68</td>
</tr>
<tr>
<td>Ecuador</td>
<td>89</td>
</tr>
<tr>
<td>El Salvador</td>
<td>44</td>
</tr>
<tr>
<td>Guatemala</td>
<td>41</td>
</tr>
<tr>
<td>Honduras</td>
<td>51</td>
</tr>
<tr>
<td>Mexico</td>
<td>36</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>41</td>
</tr>
<tr>
<td>Panama</td>
<td>87</td>
</tr>
<tr>
<td>Paraguay</td>
<td>25</td>
</tr>
<tr>
<td>Peru</td>
<td>75</td>
</tr>
<tr>
<td>Uruguay</td>
<td>150</td>
</tr>
<tr>
<td>Venezuela</td>
<td>94</td>
</tr>
</tbody>
</table>

Source: Author’s calculation with data from Mainwaring and Pérez-Liñán (2013).

I then set the three cutoff points for full membership, partial membership and not membership at all. To select them, I considered insights from the literature on Latin America. Based on these insights, I identified Chile, Costa Rica and Uruguay as the three countries with full membership in “countries with strong democracy.” Defining which countries are fully “out” was also easy: I included all countries (from El Salvador to Paraguay) with a score of 44 or lower. In almost all these cases, the democratic experience is concentrated in the last three decades, with almost no prior democratic tradition. Selecting the middle cutoff point was more
complicated. I decided to include Brazil but not Peru, so I chose a point (85) between the two. The results of the calibration—compared to the original variable—are reflected in figure A2.

FIGURE A2

CALIBRATION OF THE DEMOCRACY VARIABLE

Sources: Author’s elaboration with original data from Mainwaring and Pérez-Liñán (2013).

4. POLITICAL EQUALITY (PE_C)

Following insights from power resource theory, it is important to consider the relative strength of social movements and the extent such strength contributes to de facto political equality. In the literature on OECD countries, trade unions have often been placed at the heart of this analysis. Unfortunately, data on unionization rates in Latin America is scarce; instead of using them, for example, Segura-Ubiergo (2007) uses an indicator of potential labor strength that mixes political and economic dimensions such as the level of informality. Given this problem, to measure the relative strength of non-elite actors I decided to use the indicator “political power according to socioeconomic position” from the Varieties of Democracy project (Coppedge et al., 2018). This indicator uses expert opinion to answer the question “Is political power distributed according to socioeconomic position?” with answers varying from “wealthy people enjoy a virtual monopoly on political power” (value of 0) to “wealthy people have no more political power than those

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20 While QCA relies on mathematical tools, it is primarily a case-based methodology. As a result, the right question to ask is whether it makes sense to consider Brazil more democratic than nondemocratic in the last century and Peru more in the opposite camp—a claim many researchers would support (e.g., Drake, 2009).
whose economic status is average or poor” (value of 4). I calculated the average value for the period 1900 to 2017 to account for the cumulative, long-term effect.

I combined the Varieties of Democracy criteria and the data itself to choose the cutoff points. Uruguay is the only country above 2 (“wealthy people have a very strong hold on political power. People of average or poorer income have some degree of influence”) and therefore the only fully “in.” A cluster of countries below 1 is clearly fully “out”—political equality is almost negligible. As usual, the middle cutoff point was harder to choose: I consider Brazil—a country mired by political inequalities at the local and regional level—as more out than in and Chile in the opposite camp. The cutoff points are therefore 0.7, 1.5 and 2.5.

---

**FIGURE A3**

CALIBRATION OF THE POLITICAL EQUALITY VARIABLE

Source: Author’s elaboration with original data from the Varieties of Democracy database.
5. PRESENCE OF THE LEFT IN THE EXECUTIVE (LEFT_C)

To reflect the power of progressive parties, I considered the years in which the center-left or the left occupied the presidency from 1945 to 2010, using Huber and Stephens’s *Latin America and Caribbean Political Dataset, 1945–2012* (Huber and Stephens, 2012b), which uses original data from Michael Coppedge. In contrast to the previous political variables, I did not include the first half of the 20th century for two reasons: there is no data readily available, and the number of progressive presidents is in any case low.

Again, there are no clear theoretical expectations to calibrate this variable, so I rely on case knowledge and the distribution of the data. Venezuela and Costa Rica are the only two countries with progressive presidents in more than half of the years, so they are both considered fully “in.” A set of five countries had left-of-center presidents for only four years or less; I consider them fully “out.” I placed the middle cutoff point between the Dominican Republic, which has had progressive presidents for more than 25 percent of the years, and Honduras. The final cutoff points are 7, 17 and 30 years.

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**FIGURE A4**

**CALIBRATION OF THE LEFT-OF-CENTER GOVERNMENT VARIABLE**

Source: Author’s elaboration with data from Huber and Stephens (2012b).
APPENDIX 2

The following truth table (A4) reflects the presence or absence of the conditions as well as whether the output is present or not (which is different from whether the output variable is higher or lower than 0.5). To determine the cutoff point, I use a consistency (or inclusion) value of 0.85.

**TABLE A4**

**TRUTH TABLE FOR THE OUTCOME “RELATIVELY LOW INEQUALITY”**

<table>
<thead>
<tr>
<th>DEM_C</th>
<th>ETHN_C</th>
<th>EXP_C</th>
<th>PE_C</th>
<th>LEFT_C</th>
<th>OUT</th>
<th>n</th>
<th>incl</th>
<th>PRI</th>
<th>cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.510</td>
<td>0.006</td>
<td>GT</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.538</td>
<td>0.062</td>
<td>DR,PE</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0.566</td>
<td>0.072</td>
<td>BO</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.545</td>
<td>0.194</td>
<td>SV,HN,NI</td>
</tr>
<tr>
<td>13</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.533</td>
<td>0.131</td>
<td>MX,PY</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.611</td>
<td>0.058</td>
<td>PA</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0.710</td>
<td>0.017</td>
<td>BR</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.676</td>
<td>0.160</td>
<td>EC</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.878</td>
<td>0.684</td>
<td>CH,VE</td>
</tr>
<tr>
<td>29</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.563</td>
<td>0.193</td>
<td>CO</td>
</tr>
<tr>
<td>31</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0.904</td>
<td>0.798</td>
<td>AR</td>
</tr>
<tr>
<td>32</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.973</td>
<td>0.932</td>
<td>CR,UR</td>
</tr>
</tbody>
</table>

The truth table above is used to identify the two paths for the sufficient condition discussed in the text. Below I again present the two sufficient conditions, with data on consistency and coverage.

**TABLE A5**

**TWO PATHS TO THE SUFFICIENT CONDITION**

<table>
<thead>
<tr>
<th>Sufficient conditions</th>
<th>Consistency</th>
<th>Coverage</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEM_c<em>ETHN_c</em>PE_c*LEFT_c</td>
<td>0.90</td>
<td>0.45</td>
<td>CH,VE; CR, UR</td>
</tr>
<tr>
<td>DEM_c<em>ETHN_c</em>PE_c*EXP_c</td>
<td>0.93</td>
<td>0.40</td>
<td>AR; CR, UR</td>
</tr>
</tbody>
</table>