FACULTAD ECONOMÍA Y NEGOCIOS
UNIVERSIDAD DE CHILE
DEPARTAMENTO DE ECONOMÍA

SERIE DE DOCUMENTOS DE TRABAJO

SDT 525

The Fiscal Origins of Comparative Inequality levels: An Empirical and Historical Investigation

Autores:
Andrés Irarrázaval

Santiago, Mayo de 2023

sdt@econ.uchile.cl
econ.uchile.cl/publicaciones

The Fiscal Origins of Comparative Inequality levels: An Empirical and Historical Investigation

Andrés Irarrázaval[*]

Keywords: Inequality, Redistribution, Fiscality, Institutions, Colonialism, Latin America, Africa, India **JEL:** D02, D31, D63, D72, F54, H2, H23, N30, O15, O17, P16

Abstract**:** What explains exceptional inequality across Latin America, Africa, and India? By exploiting analytical, historical, and empirical tools, this paper revisits the literature on development and inequality. The results confirm the *neoinstitutionalist´*s emphasis on "executive checks" but challenge the primacy given to market over fiscal mechanisms. The study also shows that extreme inequality in these regions does not originate in colonial times, but rather in a post-colonial *"Great Divergence"* in fiscal capacity between Peripheral and Western states. The empirical model that revises Acemoglu et al. (2001) instrumental variable (IV) method, consistent with historical evidence, indicates that inequality differences only materialised during the 20th century following divergent fiscal patterns. In Western nations, progressive fiscality led to tangibly lower inequality since the 1920s. Whereas in Latin America, Africa, and India, despite a post-colonial convergence to a more "inclusive" economic terrain, significant inequality persists via a regressive fiscal equilibrium. In the Periphery, while limited democratic checks have not impeded post-colonial states from tackling the remnants of their colonial-era "extractive" economic system (seen as a drag on development), it severely undermined the (I) formation of the state´s credible commitments needed to raise substantial direct (i.e., more progressive) taxes, and (II) the political pressure required to mobilize fiscal revenue toward redistribution. These two factors explain roughly 70% of the inequality difference between Peripheral countries and the highly redistributive Western ones. Thereby, by overstating the role of "divergent" and "persistent" economic institutions (via colonialism), the literature overlooked the crucial role played by post-colonial changes and fiscality in shaping contemporary inequality.

Main text length: 40 pages

[*] Economics Department, *Universidad de Chile*
Diagonal Paraguay 257, Santiago, Metropolitan Region, Chile
Email: airarrazav@fen.uchile.cl

I thank the participants of *Universidad de Chile´*s Economic Department Seminar (Decom, November 2021) for their useful comments, and to professors Jeremiah Dittmar and Alejandra Irigoin from the London School of Economics (LSE) for their excellent advisory work when I was preparing the preliminary version of this paper in 2020 at LSE. I also would like to thank José De Gregorio, Peter Lindert, Tim Besley, Luis Bértola and Sara Torregrosa Hetland for their useful comments and remarks.

I. Introduction

Latin America, Africa, and India are by now well-known as the world´s most unequal places, with inequality levels that are roughly 50% higher than Western Europe, the OECD area, or East Asia (OECD 2020). Given the growing emphasis on inequality patterns to explain "why nations fail" (e.g., see Acemoğlu and Robinson 2012), understanding the origins of these inequality differences has become one of the main challenges facing academics and policymakers today. This research, to help meet this challenge, will revisit the literature and develop an interdisciplinary approach that aims to offer a better and more comprehensive answer.

This paper is also among the first to offer a thorough study of inequality. So far, the literature has not focused on studying what explains inequality *per se*, but rather on how distributive patterns shifted by some event, e.g., colonialism, affect development. Or, when studying it, the focus has often been on aggregate measures, like disposable income inequality, without exploring its origins. This paper, building in a more long-term and granular view, assesses the causes of inequality and tests whether the mechanisms stressed by the literature hold. The questions guiding this task are: (I) What are the origins of inequality differences across countries, regions, and historical periods? (II) Are such differences explained by divergent economic institutions rooted in colonialism? and (III) What is the role played by democratization, fiscality and redistribution?

This research contributes to the literature by: (a) offering a wide set of measures and methods –including analytical, historical, and empirical tools– to revisit possibly one of the biggest questions in institutional economics and economic history: what explains the inequality divergence between, on one side, Latin America, Africa, and India, and, on the other, Western Europe and its Offshoots. For answering, this research (b) develops an analytical framework that, by distinguishing between the distributive effects of market and fiscal mechanisms, allows us to disentangle what institutions matter more for explaining inequality. Also, thanks to a pioneering granular approach (and dataset), it (c) documents the primordial role of fiscal capacity and redistribution in accounting for inequality (and thus growth) dynamics across regions, countries, and historical periods.

Overall, the findings support the "*colonial origins"* thesis founded by Engerman and Sokoloff (1994), developed empirically by Acemoglu et al. (2001), and epitomized in *Why Nations Fail* (2012). Inequality differences do arise from divergent political institutions between the West and Periphery (tracing back to colonialism). Yet, the causality channels stressed should be revised. The analytical, historical, and empirical tests exploited consistently indicate that the key role given to the persitence of "extractive" economic institutions in Latin America, India and Africa has been overstated and how post-colonial governments have also played a major role in addressing (not just keeping) colonial-inherited disparities. The assessments also show that the origins of the Periphery´s excess inequality are not to be found in the colonial period, but rather in a post-colonial *"Great Divergence"* in fiscal capacity between Peripheral and Western states.

In turn, the paper proves that inequality derives from Peripheral states' persistent in-capacity to build fiscal and redistributive capacity over the 20th century. In Latin America, Africa, and India, while post-colonial states have been relatively successful in tackling the remnants of their unequal colonial-era economies (seen as a drag on development), the prevalence of limited executive checks undermined the formation of the state´s credible commitments needed to raise substantial direct (i.e., more progressive) taxes. Accordingly, a restricted political voice of poorer households limited the political pressure necessary to channel sufficient fiscal income toward redistribution. Therefore, despite a post-colonial convergence to a relatively more "inclusive" economic field in the Periphery, significant inequality persists via a regressive fiscal equilibrium.

We argue that these patterns result from the distinct nature of economic and fiscal reforms. History shows that reforms to lower inequality were mostly led by autocrats in the Periphery. Yet, these autocrats' efforts have focused on the so-called "structural" economic inequalities, namely access to education, property, and opportunities, not on building redistributive capacity. These economic reforms were not only seen as a political priority (to trigger industrialization) but were also relatively easier to implement. Instead, tackling inequality via taxes and transfers pre-requires a solid fiscal contract: being able to credibly commit to redistributing fiscal revenue back to citizens via social transfers. In the Periphery, this commitment was unlikely to hold in the absence of democratic accountability -and less in presence of populist and/or revolutionary "strongmen" who build support by polarizing society.

Taken together, these findings contribute to explain why (I) the long list of autocrats that have marked the Periphery during post-colonial times, which have been historically left leaning, have proven powerless in tackling a regressive fiscal equilibrium benefiting elites. It also explains (II) how their in-capacity to issue the credible commitments needed to build a solid fiscal capacity helps to account for the persistent lack of redistribution across Latin America, Africa and India. Lastly, it contributes by documenting how (III) despite converging to less *"extractive"* economies, falling behind in fiscal capacity permits us to account for the largest part of the Periphery´s excess inequality vis-à-vis the highly redistributive Western states.

The rest of the paper is organized as follows. First, we describe the data used to construct comparable distributive statistics. Then, Section II develops the analytical framework that maps the dynamics between economic institutions, fiscal capacity, and inequality. By applying it, Section III studies the causes of excess inequality in Latin America, Africa, and India. Then, Section IV explores the origins of the "*Great Divergence"* in inequality, showing that the Periphery only became comparatively unequal during the 20th century when it missed the "*Great Levelling"* that took place in Western countries. In turn, Section V develops the empirical model that revises and adapts AJR´s IV strategy to test whether fiscal or market mechanisms explain the "*Great Divergence"* in inequality. Lastly, Section VI concludes and discusses the findings.

II. Addressing the limits of the literature

The seminal work of Engerman and Sokoloff (1994, 2002, 2012) henceforth ES, and of Acemoglu, Johnson and Robinson (2001, 2002, 2005) hereafter AJR, have famously stressed the colonial origins of inequality differences and its persistence via historically determined institutional systems. Following the influence of these *institutionalist* authors, there is a growing consensus on that: (I) inequality differences chiefly derive from divergent economic institutions between the Periphery (characterized by an *"extractive"* economic terrain) and Western countries (by an *"inclusive"* one), and that (II) this inequality differences originated in colonial times.

Yet, several studies have started to call into question the *institutionalist* consensus. Firstly, the colonial origins of inequality differences have not been sustained by comparative evidence (Coatsworth 2008, Williamson 2009). Secondly, while the *intuitionalists* have emphasized the persistent effects of "extractivism" in the Periphery, such as of forced labour institutions like the *mita*, they deemphasized identifying and understanding institutional change and the underlying mechanisms explaining the persistence observed in the data or the lack of it (Abad et al. 2019). Thirdly, by focusing on colonialism, studies have overlooked the effects of post-colonial factors on inequality, like globalization (Bértola et al. 2010). Thus, by doing a "compression of history", *institutionalist* studies seem to have over-simplified causation (Austin 2008).

Interestingly, the *institutionalist* and their critiques share a common methodological limitation. Until now, these studies have not focused on answering "what originates inequality differences" but on providing evidence on the effects of one of its likely causes, from property rights (AJR) to trade (Williamson 2011). Following Gelman and Imbens (2013), this is related to economists' research preference for "forward causal inference" methods designed to identify the effects of specific causes (using empirics), rather than for "reverse causal inference" tools designed to analytically answer: "what causes a phenomenon". That is to identify underlying causes. As such, the literature tends to offer partial answers to what explains inequality differences.[1]

This happens because research typically focuses on a single factor that may (or not) be of a secondary order, like what are the effects of certain endowments or "extractive" institutions, e.g., tropical soils (ES, Easterly 2007), slavery (Nunn 2008). Or because, due to limitations related to causal identification, studies end up answering a narrower or different version of the question, like what are the effects and/or causes of an inequality sub-dimension, such as access education (e.g., Glaeser et al. 204). This then limits our understanding of multicausal (complex) outcomes, like inequality and growth. Based on this, Rodrik (2021) argues that interdisciplinary approaches combining analytical, historical, and empirical tools would be optimal for providing more comprehensive answers to the "big questions" of the field.

[1] The following cases are applied versions (to inequality studies) of Rodrik (2021) general examples.

In this line, this paper's original research strategy (going from reverse to forward inference) aims to provide a full answer to "what originates inequality differences". For doing so, we first follow a "reverse causal inference" approach to identify the underlying causes of current inequality differences via an analytical and historical assessment. Then, based on this, we develop a "forward causal inference" method that revises AJR's (2001) Instrumental variable (IV) strategy to assess the effects of the underlying causes identified. Applying our analytical framework to AJR´s revised model should allow us to disentangle "what institutional mechanisms matter more" (market or fiscal) for explaining cross-country inequality.

This study also attempts to address the criticism directed at *institutionalists* via several steps. Firstly, to avoid doing a "compression of history", the research builds in a long-term comparative perspective to study inequality, considering both colonial and post-colonial historical processes. Secondly, to avoid overlooking the possibility of post-colonial change and convergence, it assesses persistence-reform dynamics: whether and why persistence can be empirically identified. Thirdly, by identifying divergence-convergence inequality patterns (between the West and the Periphery), and persistence-reform institutional dynamics (within the Periphery), it aims to avoid reproducing the flawed perception of Latin America, Africa, and India as timeless and continuing institutional entities trapped in their colonial heritage and/or drifting away from the West.

III. Mapping inequality dynamics

II.1 The lay of the land

The empirical literature studying the determinants of long-term development and inequality in former colonies has identified a clear relationship leading from colonialism to current outcomes (e.g., AJR, Easterly 2007, Nunn 2008). As shown by these studies, across Latin America, Africa and India, the interaction of colonialism with local endowments, namely disease environments (high settler mortality) and abundance of native labour (high pre-colonial population density), led to the formation of "extractive" colonial institutions. That is rules and practices that benefited a small elite of European asset-holders (land, mining, or plantation owners) to the detriment of the bulk of the population i.e., slaves, indigenous and mestizos.

Whereas in Western Offshoots (Australia, Canada, New Zealand, and the US), which had a scarcer native population, more temperate soils (less suitable for slave-based plantations), and a benign environment for colonizers (lower settler mortality), Europeans settled in large numbers. Then, in these "settler" colonies, colonialism would have led to the early emergence of "inclusive" institutions guaranteeing a more equal economic terrain, namely via broader access to education, ownership rights, and free labour. At the same time, this literature has also stressed that colonialism promoted an early emergence of "inclusive" institutions in Western Europe, where exposure to the Atlantic trade (inaugurated by colonization) expanded economic opportunities and led to political change towards less "institutionalized" inequality (AJR 2005).

Consistent with this literature, the descriptive statistics in Table 1 indicate that different types of colonization did lead to divergent inequality across the New World. Former "extractive" colonies are indeed systematically more unequal than "settler" ones. Likewise, within "extractive" places, countries with lower settler mortality and/or scarcer native populations also ended up being less unequal than the others (e.g., Argentina vis-à-vis Brazil). However, this does not prove that "extractive" economic systems have persisted, nor that current asset and opportunity disparities explain present-day inequality differences. Inequality is not only the result of underlying economic disparities but also of taxes-and-transfers systems.

Table 1. Income Inequality across the world

Country	Gini	Country	Gini	Country	Gini	Country	Gini
Costa Rica	0.48	Argentina	0.40	Belgium	0.26	South Africa	0.62
El Salvador	0.41	Chile	0.46	France	0.29	India	0.50
Guatemala	0.54	Uruguay	0.39	Germany	0.29	Turkey	0.40
Honduras	0.48	Southern Cone	0.42	Ireland	0.29	Russia	0.33
Mexico	0.46	Brazil	0.47	Italy	0.33	Hungary	0.29
Nicaragua	0.50	Venezuela	0.38	Netherlands	0.29	Poland	0.27
Panama	0.50	Latin America	0.46	Portugal	0.32	Bulgaria	0.40
Central America	0.48	United States	0.39	Luxembourg	0.26	Romania	0.35
Bolivia	0.44	Canada	0.31	Spain	0.29	Latvia	0.35
Colombia	0.52	North America	0.35	United Kingdom	0.29	Lithuania	0.37
Ecuador	0.45	Australia	0.33	Western Europe	0.29	Slovak Republic	0.24
Peru	0.44	New Zealand	0.35	Japan	0.34	Slovenia	0.24
Andean States	0.46	Western Offshoots	0.34	OECD Average	0.32	Korea	0.36

Note: The data is for 2017 or the latest available year based on the OECD Income Distribution Database (OECD IDD) and the UN Economic Commission for Latin America and the Caribbean (ECLAC) calculations. Regional Averages are unweighted (underlined). See details in Appendix A.

II.2 Measuring inequality.

This paper´s data expects to contribute by offering a more granular look into the origins of the "Great Divergence" in inequality between the West and the Periphery. Until now, the literature has used aggregate measures, namely disposable income inequality Ginis (e.g., see Easterly 2007), without exploring where this inequality originates. That is before or after taxes and transfers. Then, by building on more granular data, we will be able to test via which channels inequality originates, and thus, assess whether the institutional mechanisms stressed by the literature hold. For doing so, we will first briefly describe the data and then develop the analytical framework to disentangle what factors matter for explaining cross-country inequality.

The distributive statistics used here are based on the data and methodology of the OECD Income Distribution Database (hereafter OECD IDD). This dataset includes inequality statistics before and after taxes and transfers across a wide range of developed and developing countries. It is highly valued and used by policymakers and researchers as it allows for a comparative assessment of both inequality and redistribution measures (Gasparini et al. 2015). Importantly for us, the UN

ECLAC has used this method to obtain internationally comparable inequality and redistributive measures for Latin America and the Caribbean - see Hanni et al. (2015). Based on this, we use here a combination of the OECD and ECLAC calculations (using the OECD method) which allows us to obtain a comparable dataset on inequality and redistribution for a set of 57 countries, including 24 former colonies across several continents.

This gives us exceptionally abundant and granular data, especially for the Americas, the classical case study of the *institutionalist*s (AJR and ES).[2] Other datasets either cover a lower number of countries or offer less data comparability. The first is the case of the Luxembourg Income Study (LIS), covering a lower number of ex-colonies than the OECD-ECLAC sample. Other databases, while covering more countries, are not standardized (thus not comparable), or do not include data before and after taxes and transfers, like the World Bank databases. This is also the case with the World Inequality Database (WID), which focuses on pre-tax inequality and top-income earners and thus lacks sufficient detail to analyse redistribution, especially across the full distribution.[3] Also, the WID data comparability is limited as it builds on tax records. Fiscal systems respond to country-specific conditions (its history and political economy), then how taxes are recorded (its method) and what they capture (who and what is being taxed) varies across countries. Therefore, we prefer the OECD-ECLAC data as it not only offers both granular inequality and redistribution data but was also built to ensure international comparability.[4]

II.3. Disentangling inequality.

Income inequality is quantified as the extent of disposable income differences between households, including both incomes from work and capital (Atkinson and Bourguignon 2015). Accordingly, the extent of these differences results from the interaction of market inequality, i.e. income inequality before taxes and transfers, with the redistributive capacity of the state, i.e. its ability to tackle market inequality via taxes and transfers (Causa et al. 2018).

Market income inequality -called market inequality- is determined by the market returns (wages and rents) to the private assets (accumulated human capital and wealth) and efforts of households, and by the underlying distribution of assets and opportunities (e.g., Goñi et al. 2008). The more unequal this distribution is, i.e., when wealth, human capital and opportunities are concentrated among a few households, market inequality will be higher. As such, entry barriers,

[2] Among former colonies, North America is typically compared to Latin America. That is because both were colonized by European colonial empires over roughly the same period, were relatively land-abundant, and independent at similar times. Yet, as they had different endowments (in population density and diseases), the US and Canada, ended up being significantly less unequal and richer than their Southern neighbours

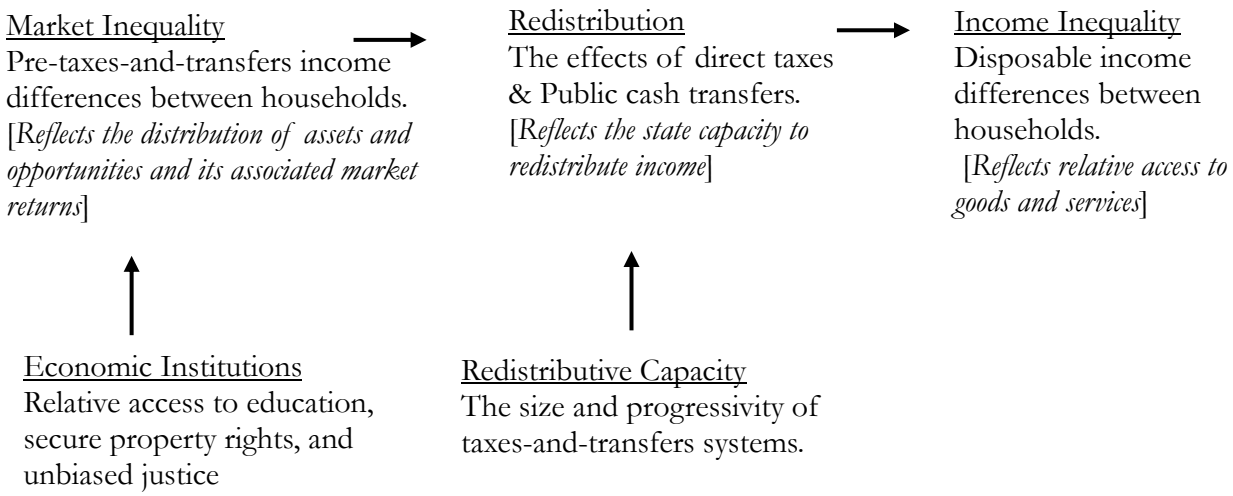
[3]The WID method is built on fiscal records, so it has problems measuring inequality across the full income distribution. That is because poor households are not included in fiscal records as they are typically exempted from direct taxes.

[4]Offering internationally comparable data is at the core of the OECD and ECLAC´s *raison d´être*.
For a review of the data used see Appendix A.

like discrimination based on ethnicity, social class or other, translates into higher market disparities.[5] Likewise, constrained access to education and ownership increases market inequality as it limits the capacity of most individuals to accumulate capital, while promoting the concentration of ownership (and thus returns) among the privileged few with access (e.g., Lopez et al. 2008).[6]

In turn, the degree to which these disparities translate into disposable income differences is determined by the capacity of taxes-and-transfers systems to tackle these market inequalities, resulting from underlying assets and opportunities disparities, via redistribution. This capacity is fundamentally determined by the incidence of fiscal action: the size, coverage and progressivity of taxes and transfers systems (Causa et al. 2018). That is to say, the more substantial and progressive taxes are (when their incidence falls more heavily on richer rather than poor households), and the more generous and targeted at poorer households social benefits are, redistribution will be higher. Then, this translates into lower income inequality between rich and poor households - and *vice versa* in the context of a regressive taxes-and-transfers system. Redistributive capacity is quantified as the relative reduction in market inequality after the effects of taxes-and-transfers systems.
These dynamics are summarized in the scheme below.

Disentangling income inequality and its components



Notes: Assets include both wealth and embedded assets such as human capital and health. As such, and based on the OECD methodology, in-kind public transfers such as free (or subsidised) access to public education and health affect income inequality through market inequality (by reducing asset disparities) and are not included in redistribution –as the latter only includes cash transfers.
Source: Own elaboration based on the literature on inequality dynamics, [e.g., Goni et al. (2008), Causa et al. (2018)]

[5] Namely because discriminated groups face higher entry barriers to the labour market and receive lower earnings for a given level of productivity (e.g. Roemer and Trannoy 2015).
[6] For example, limited access to education leads to both a more unequal distribution of human capital and a higher skill premium, fuelling market inequality.

II.4 Applying the framework: testing AJR & ES

Based on the framework, "inclusive" economies à la AJR and ES, which guarantee open access to property rights, education, opportunities and a non-discriminatory market in general, should lead to low market income inequality.[7] Whereas "extractive" economic institutions designed to benefit the elite at the expense of others, should have the opposite effects.[8] Thus, if AJR and ES are right in stressing different economic arrangements to explain cross-country inequality, market inequality levels should reflect this. We should then observe very high market inequalities in places with persistently "extractive" economic systems, like Latin America, and lower levels in "inclusive" economies, like in the US and Western Europe.

However, the comparative evidence does not support the literature´s preferred mechanism. As Figure 1 shows, there are no significant differences in market inequality levels between places that experienced distinct types of colonization ("extractive" or not), nor between colonizers and their "extractive" colonies. In Latin America and India, market disparities stand at similar levels to Western Europe (around 0.51-0.50 Gini) and slightly above the OECD average (0.47). Moreover, the main colonializing nations show similar market inequality to their colonies. The UK has 0.50 Gini vs. 0.51 in both India (extractive) and the US (settler). Similarly, market inequality in Spain is no different than in the average Latin American country. Therefore, even when compared with countries with an arguably "inclusive" economic playing field à la AJR and ES, Latin America and India show rather "unexceptional" levels of inequality.

We also find no relation between market inequality and settler mortality rates (Figure 1b). Following AJR, mortality rates determined "inclusive" economic institutions in low mortality areas or "extractive" in higher mortality ones. Yet, the evidence does not support the persistence of "exceptionally" unequal distributions of assets and opportunities in former "extractive" colonies. Even when using the Inequality Extraction Ratio (IER), built to compare countries with different development -see Milanovic et al (2011), we find no link between mortality and the IER for market inequality -the correlation being 2% (Annex B). Furthermore, areas with endowments suitable for labour exploitation (high pre-colonial population density), also do not show high market inequality. The Andean region, the canonical case of "extractive" colonialism related to labour coercion under the *Mita* in silver mining or the *Encomienda* in agriculture in Peru and Bolivia (e.g., Dell 2010), has a similar market inequality to the US or Europe. Even India, the poster child of "institutionalized" exploitation via its caste system, shows a rather "average" market inequality.

[7] "*Inclusive economic institutions (…) are those that allow and encourage participation by the great mass of people in economic activities that make best use of their talents and skills and that enable individuals to make the choices they wish. To be inclusive, economic institutions must feature secure private property, an unbiased system of law, and a provision of public services that provides a level playing field in which people can exchange and contract; it also must permit the entry of new businesses and allow people to choose their careers*" (AR, 2012,).

[8] The main channels identified by the literature on how "extractive" economic institutions promote market inequality are by limiting access to human capital (Mariscal and Sokoloff, 2000, Easterly 2007, Acemoglu et al. 2014), land (ES, Banerjee et al. 2015; Frankema 2010), credit (Haber, 2011) and secure ownership rights (ES & AJR).

Figure 1. Persistent asset and opportunities disparities in India and Latin America?

Figure 1a. Revisiting "exceptional" economic inequality in Latin America and India

Market inequality in comparative perspective:

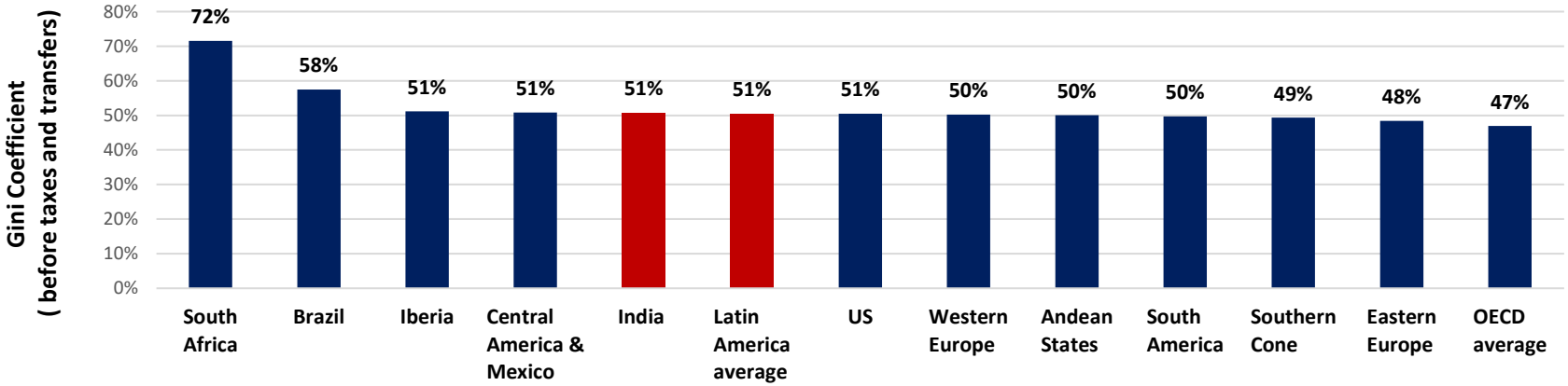
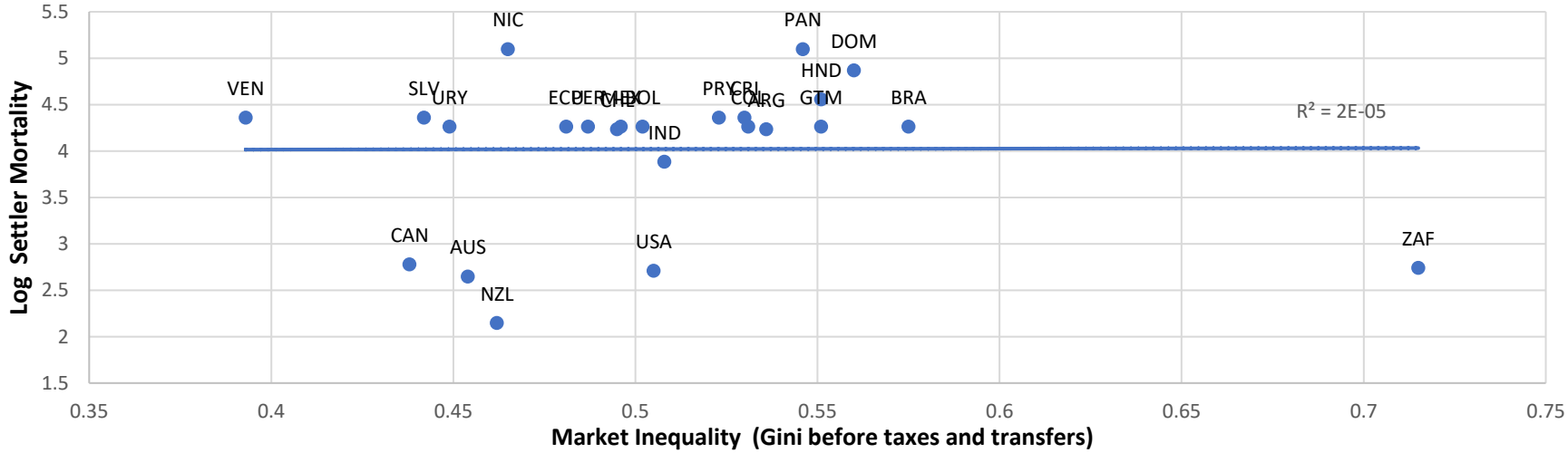


Figure 1.b. Revisiting "institutionalized" economic inequality across non-settler colonies

Settler mortality and market inequality:



Notes & Sources: Own elaboration based on OECD and UN ECLAC inequality calculations for 2017 or the latest available year (i.e., circa 2017-2011). Regional Gini coefficients are calculated based on unweighted averages. Inequality considers both incomes from work and capital. See appendix A for details. Settler mortality data is from AJR (2001). In Appendix B we show that the Figure is robust to using alternative data.

The exceptions are South Africa and Brazil, which do have very high market inequality (Figure 1), the highest of the OECD-ECLAC sample. Consistent with the literature emphasizing the pernicious effects of slavery, e.g., ES and Nunn (2008), asset and opportunity disparities have remained high in former slave economies. Yet, widespread slavery, like in South Africa and Brazil, or the Caribbean, was the exception, not the rule. All the other former colonies had a significantly lower prevalence of slavery, including indigenous (Nunn 2008).[9] Slaves in Argentina, Chile, Peru, or Mexico were no more than 10% of the population, compared to 60% in Brazil or 20% in the US circa the 1790s (ES 2012). It is, thus, no coincidence that places that did experience extensive slavery, like South Africa and Brazil, have high market inequalities.[10] Whereas non-slave colonies, like India and most of Latin America, have lower levels.

The picture remains the same if we alternatively use other sources and methods to assess market inequality, like the Standardized World Income Inequality Database (SWIID) which uses the LIS method as the standard (see Appendix B). Consistent with the latter, Caminada et al. (2017) offer a comparison of pre-taxes-and-transfers inequality data based on LIS and OECD calculations, which shows that both databases offer practically identical results. Moreover, in the LIS database, other "extractive" ex-colonies like Egypt and Guatemala, which are not included in the OECD-ECLAC sample, also show lower market inequality than the US, UK, France, or Spain. Therefore, the results presented do not seem driven by a specific method or selection bias. Both OECD and LIS data do not support AJR and ES´s stressed mechanism (even when using the IER), indicating that there has been a post-colonial convergence to less "extractive" economies.

As a further robustness check on AJR and ES, we can also study property disparities. These authors have particularly emphasised the persistence of an "institutionalized" ownership concentration benefiting the elite in former "extractive" colonies; ES stressed restricted access to land and AJR to secure property rights. Considering that land has become a rather marginal share of wealth today (vis à vis physical capital or finance), wealth inequality stands as a better measure of current ownership disparities. Yet, as the Global Wealth Databook (2019) shows, wealth inequality is not especially high in Latin America, India, or Africa (see Table 2). Even the classic comparison of South and North America, where the former is depicted as having a persistently "institutionalized" ownership inequality, is not sustained by comparative evidence. North America (especially the US) has today higher ownership disparities.[11]

[9] In Spanish America, indigenous slavery, the *encomienda*, was prohibited since the 1540s due to depopulation concerns (Abad et al. 2012). Also, most colonized regions were spared from slavery as they were colonized during the post-chattel-slavery era in the 19th century, like most of Africa, Australia, New Zealand, and India (Stanziani 2017).

[10] There is no comparable inequality data for the Caribbean except for the Dominican Republic (DR). Yet, consistent with our analysis, DR, like other former slave colonies, has a comparatively high market inequality (a 0.56 Gini).

[11] The picture is similar if we alternatively use OECD data -see Balestra (2018). The OECD IDD data show that in Chile, the only Latin American country with data, the top 10 owns 58% of total net wealth vis à vis 79% in the US. Despite its supposedly *inclusive* economic institutions, the US has the highest wealth inequality in the OECD dataset.

Table 2. Revisiting wealth inequality in Latin America, Africa and India

	Gini Index	Top 10%
Asia-Pacific	88%	82%
US	85%	76%
North America	84%	75%
India	83%	74%
Latin America	83%	72%
Europe	82%	69%
Africa	82%	72%
China	70%	60%

Note: The wealth inequality data is based on the Global Wealth Report and Databook (Davies et al. 2019). It includes both financial and non-financial assets. This is the most comprehensive dataset on wealth statistics worldwide, covering the household wealth of 5 billion people worldwide. For instance, the OECD uses this Databook to verify their wealth inequality database (Balestra and Tonkin 2018).

In sum, the evidence consistently indicates that the role given to "extractive" economic institutions -keeping "exceptional" structural inequality- in the Periphery ought to be nuanced. A back-of-the-envelope calculation shows that market disparities explain 30% of the excess inequality in Latin America relative to OECD countries. That is 4 Gini points of a total of 14 points difference. We then still need to account for the larger part of the variation (70%) in comparative inequality. Thus, ES and AJR seem to have stressed a mechanism, which, while certainly important, looks secondary in comparative terms.

II.5 State capacity and Redistribution

What is exceptional about Latin America, Africa and India and explains its record-high inequality is a limited redistribution via taxes and transfers and its associated weak state capacity. Following Besley and Persson (2011), state capacity corresponds to the ability of the state to raise substantial fiscal revenue via direct taxes- and to mobilise such revenue towards an "efficient" intervention. That is when state action pursues public goals and as such fiscal revenue is invested in public goods or redistributed back to citizens. As Figure 2 shows, there is a strong relationship between fiscal state capacity -captured by tax-to-GDP ratios- and redistribution.

This happens because a weak fiscal (tax) capacity limits the size and progressive impact of taxes and transfers and, thus, the state´s ability to redistributive income (e.g., OECD 2018). Firstly, a weak fiscal capacity undermines the redistributive impact of social benefits. Given that transfers are an essential tool to tackle inequality by lifting poorer households out of relative and/or absolute deprivation, limited taxation (as % GDP) fuels inequality by reducing the potential generosity and coverage of transfers (e.g., Goni et al. 2008). In India, Africa, and Latin America, meagre tax-to-GDP ratios standing on average at 10%, 17% and 21% respectively, limit their social systems' capacity to reach out and help those in need. As Table 3 shows, this compares to a 32% tax-to-GDP ratio in the OECD and 37% in Western Europe, which allows for greater social spending levels, and thereby, for a larger redistribution.

Table 3. Redistribution and fiscal capacity

	Redistributive Capacity (%Gini reduction)	Total taxes (%GDP)	Direct Taxes (%GDP)	Social Spending (%GDP)	Direct Taxes (% Taxes)	Indirect Taxes (% Taxes)
Africa	No data	17%	3%	No data	15%	53%
Central America	4%	18%	2%	7%	10%	45%
Andean States	4%	20%	1%	8%	5%	49%
Latin America	6%	22%	2%	9%	9%	50%
Southern Cone	12%	26%	2%	11%	9%	48%
South Africa	13%	27%	11%	11%	32%	40%
Brazil	18%	32%	2%	19%	8%	42%
US	23%	25%	10%	19%	39%	17%
East Asia	23%	27%	5%	17%	17%	24%
Western Offshoots	26%	29%	11%	19%	38%	26%
OECD average	33%	34%	8%	21%	24%	33%
Western Europe	38%	37%	9%	24%	24%	29%

Note: Redistribution (circa 2011-2017) is the relative decline in market inequality after the effects of taxes and transfers based on OECD and ECLAC calculations. Tax data is from the OECD Global Revenue Statistics database (2020) and corresponds to the average for 2010-2018. Direct taxes are on income, profits, and capital gains of individuals. Indirect ones are on goods and services. Social spending is based on OECD data and ECLAC data for non-OECD countries – see data underlying Figure 5.4 in OECD (2019). Averages are unweighted.

Secondly, a weak fiscal capacity additionally fuels inequality via a regressive tax structure. Indirect taxes (on goods and services), which are typically regressive, require fewer investments in administrative capacity than direct ones -on income, profits and capital gains of individuals that concentrate at the top (Besley and Persson 2011, 2012). Thus, countries with a weak fiscal capacity tend to overwhelmingly rely on regressive tax sources, such as in Latin America, Africa, or India, where indirect (regressive) taxes account for at least 50% of total taxes. This compares to 26% in Western Offshoots. Direct (more progressive) taxes represent only 9% of total taxes in Latin America (2% of GDP) and 15% in Africa (3% GDP), compared to 24% in Western Europe (9% GDP) and 38% in Western Offshoots (11% GDP). Then, while robust income taxes reduce market inequality by 12 Gini points in the European Union, meagre ones reduce inequality by just 2 Gini points in Latin America (OECD 2018).

Thirdly, when state intervention is inefficient, and thereby, not aligned with public goals and/or unable to enforce tax law, the state´s capacity to address inequality severely weakens. Misallocated spending, like corruption (diverted spending), undermines the progressive impact of fiscal policies. This is due to fiscal revenue not being channelled towards those in most need (e.g., Abad and Lindert 2017). Likewise, a large shadow economy, denoting the state's incapacity to enforce the law, limits its ability to tackle inequality (e.g., Goñi et al. 2008, Skoufias et al. 2010). Informality not only erodes revenue collection (by narrowing the tax base), and thus, the capacity to afford social protection, but also limits its progressivity. Benefits are often tied to participation

in formal activities, yet poor households concentrate on informal ones. In the Periphery´s largely informal -i.e., uncontrolled- markets accounting for 40% up to 90% of workers, social protection ends up benefiting rich formal workers rather than poor ones.[12]

Considering these points, it becomes clear that the Periphery´s excess inequality chiefly derives from its *exceptionally* limited redistribution (due to a weak fiscal capacity), rather than from the *unexceptional* inequality of its economic terrain. Redistribution in Latin America is 6 times lower than in the OECD and Western Europe (Figure 2), while market disparities are roughly equivalent (recall Figure 1). Likewise, India leads inequality rankings due to an almost inexistent redistribution that is 10 times lower than in the OECD or Western Europe. Even Chile and Mexico, which are OECD members and significantly more prosperous than the rest of the Periphery, have an equally limited redistributive capacity –that is 22 pp lower Gini reduction than their OECD colleagues. For instance, Latin America had the redistribution level of Greece, Poland, Hungary, or Slovakia (around a 40% Gini reduction), its Gini would be 15 points lower (0.31 vs 0.46), and thus, the region would be less unequal than the US, Australia, and New Zealand.

Summing up the results of the "reverse causal approach", what is salient about the Periphery, and explains their world-leading inequality, is their states' in-capacity to tackle market disparities (inherent to any market economy) via progressive taxes and transfers. This is primarily due to a significantly lower fiscal capacity. These states not only extract little revenue relative to their GDPs, and thus, do not have much to redistributive back, but also collect revenue via regressive methods, fuelling inequality. Then, while the literature has stressed "underlying" economic disparities, the assessments developed here indicate that this view is somewhat flawed.[13] Inequality is above all embedded in a weak fiscal capacity benefiting elites. Then, the key research questions that arise are: (I) How do we explain this post-colonial convergence to less "extractive" economic systems, and (II) What are the origins of these divergent fiscal equilibriums?

[12] According to ILO (2018), 45% of labour was informal in Brazil, 66% in Mexico and more than 80% in Central America, and up-to 90% in India and most of Africa.

[13] Naturally, this does not mean that "structural" disparities in assets and opportunities have not played a crucial role (especially throughout history), it tells us that for modern inequality dynamics these factors have become secondary. That is especially true in relation to taxes-and-transfers systems.

Figure 2. What is exceptional about Latin America and India?

Figure 2a: Redistributive capacity: the fundamental determinant of inequality differences

The extent of fiscal redistribution

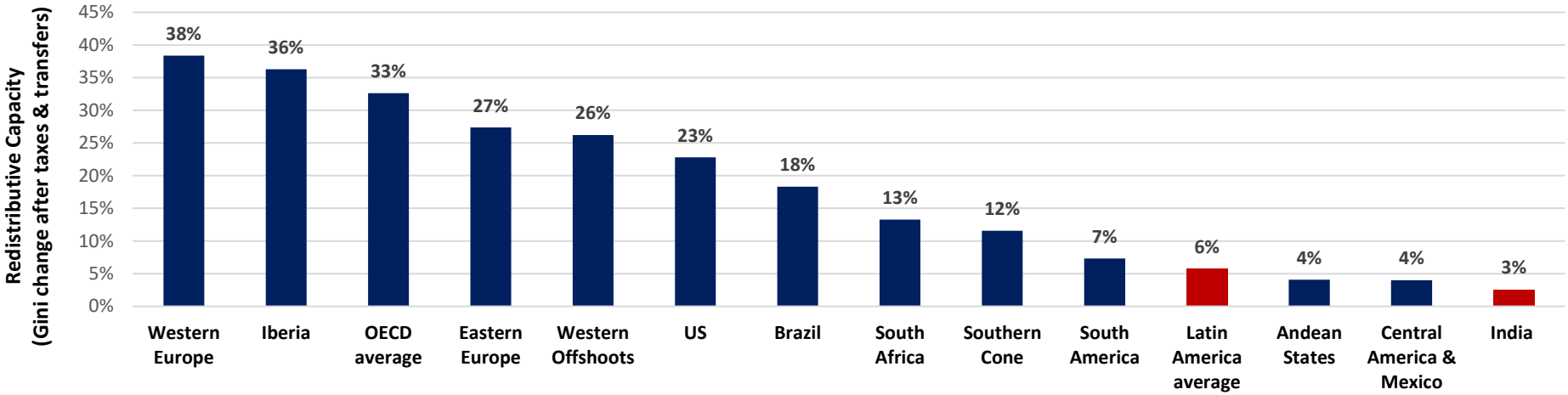
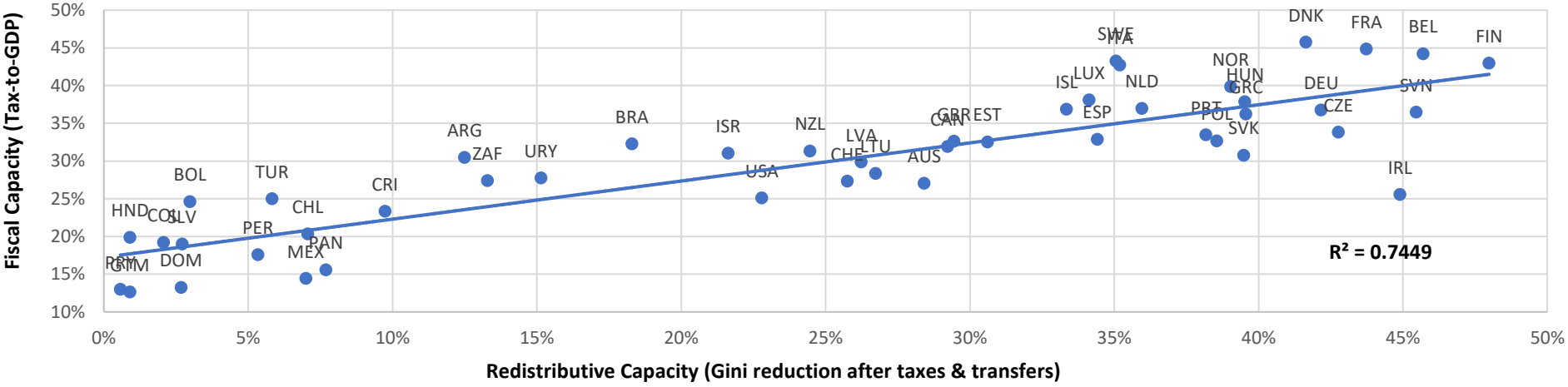


Figure 2b: Fiscal capacity: the fundamental determinant of redistributive capacity

Fiscal and redistributive capacity



Notes: Own elaboration based on OECD and ECLAC calculations as explained in the "Mapping Inequality" section. Redistribution is the relative decline in market inequality after the effect of taxes and transfers

IV. The historical origins of comparative inequality levels

III.1 Persistently more extractive, regressive and unequal?

Since colonial times, Latin America, Africa, and India have had regressive fiscal systems, a tax structure that depends on indirect taxes and spending benefiting the richest (e.g., Sokoloff and Zolt 2007, Gardner 2012, Roy 2015). Yet, until the late 19th century, regressive spending and collection were not exceptions, but the rule across the world. Before the 20th century, progressive taxes and spending were virtually inexistent (e.g., Piketty 2013, 2020, Alfani 2021). It was not until the incorporation of non-elite households into the political system during the 20th century, namely the emergence of mass politics, that some Western States started to develop redistributive public spending and tax collection (Lindert, 2004). Therefore, colonial institutions in Latin America or Africa were not so different from institutions in other world regions before the early 20th century –at least in terms of having inequality-enhancing states.

Likewise, the *institutionalists* have also failed to nuance the supposed *exceptionality* of labour institutions in colonial settings. Before the late-19th century, labour coercion was not only endemic to Latin America and Africa, but was also widespread across the Old World, including in Europe, e.g., *corvée* labour in France, and distinct types of serfdom were predominant in Eastern Europe and Asia (Hobsbawm 1962, Bloom 1988). In North America, extensive labour coercion also played a key role, along with slavery which accounted for 20% of the population of the US (circa 1770s), indentured servitude was also systematically used to coerce migrant workers from Europe and Asia until its abolition in 1917 (Tomlins 2001).[14] Even in Britain, home of the Glorious and Industrial Revolution, labour coercion via the Master and Servant Act -that made employee contract breach a criminal offence -was only repealed in 1875.

Table 4. Inequality from a historical perspective

Country	year	Gini	Country	year	Gini
England and Wales	1801	51.5	Java (Indonesia)	1880	39.7
Bihar (India)	1807	33.5	Maghreb	1880	57.1
Netherlands	1808	57	Japan	1886	39.5
Kingdom of Naples	1811	28.4	Chile	1900	45.0
US	1850	48.7	European Russia	1904	37.5
US	1860	51.1	Kenya	1914	33.1
Chile	1860	46.6	Java (Indonesia)	1924	32.1
England and Wales	1867	48.9	Kenya	1927	46.2
US	1870	51.4	Cochinchina (South Vietnam)	1929	36.8
Brazil	1872	43.3	Tonkin (North Vietnam)	1929	25.6
Peru	1876	42.2	Siam (Thailand)	1929	48.5
China	1880	24.5	India	1938	49.7

Note: The data is from Milanovic (2018), except for the UK in 1867 which is from Lindert (1993). These estimates are based on "social tables," i.e., historical records that provide evidence for income levels across different social groups and their respective population, see Milanovic, Lindert and Williamson (2011) for a review of this method.

[14] Tomlins (2001) estimates that half of European settlers came through this form of servitude to the 13 colonies.

Thus, until the late 19th century, Western institutions, like the ones set in their colonies, were designed to extract resources from the bulk of the population for the benefit of a small elite of asset holders -who profited from labour coercion, tax-free-riding, and spending privileges, (e.g., Dincecco 2015, Alfani 2021). Consistent with this, pioneering research on pre-modern inequality (Table 4) shows that neither Latin America nor India was more unequal than the US or Western Europe before the late 19th century. Challenging the *intuitionalists´* historical narrative, despite their relatively more "inclusive" systems, Western Europe and the US showed higher inequality than oligarchic Peru, Chile, or Brazil by the 1860-1870s. Even Western Europe at a similar level of development, before industrialization vis-à-vis post-independence Latin America, had consistently higher inequality levels (Williamson, 2015).

III.2. Converging inequality during the First Globalization.

Inequality only reached relatively high levels in Latin America, India and Africa after the effects of the First Globalization (1870-1910s), which inaugurated commodity market integration and the convergence of world factor prices –led by steamships, railways and canals (Willamson 2011). Following market integration with land-scarce Western Europe, the price of land, which was historically low in the land-abundant New World, boomed. Real land value tripled in the US and Australia, and the wage-rental ratio dropped by 1.7% annually in the US and by 4% in Argentina from 1870 to 1913 (O´Rourke 1997, Williamson 1998). In other land-abundant regions like Africa, changing terms of trade also turned factor prices favourable to land over labour, thus boosting the power of the landed classes and inequality (e.g., Bolt et al. 2021).

In inequality terms, the effects of trade were stronger in Latin America and Africa than in Western offshoots. Given the lack of democratic checks in the Periphery, the export boom boosted inequality not only via terms of trade favouring landed classes but also by unleashing rent-seeking.[15] To capture the growing commodity demand of an industrialising Europe, "extractive" activities (from mining to agriculture using labour coercion) soared from the Southern Cone to North Africa (e.g., Williamson 2011, Bértola et al. 2010, Saleh 2020). In turn, empowered landed interests relative to labour used their growing power to massively re-shape the distribution of assets in their favour. Estates (e.g. Latin American *haciendas*) expanded at the expense of public and indigenous communal land, fuelling land inequality (Coatsworth 2005, Dell 2010, Bértola and Ocampo 2012).[16] Therefore, in the Periphery, globalization additionally boosted inequality via unchecked rent-seeking.

[15] As an illustration, while "oil barons" in the US were eventually constraint by antitrust laws (e.g., Sherman Act 1890), "rubber barons" in Latin America and Africa remained unconstrained -recurring to widespread violence and slavery (e.g., as in the well-known cases of Brazil and Congo during the rubber boom in the 1870-1910s).

[16] ES and Frankema (2010) land tenure data for Latin America, which started in 1895 and 1914 respectively, already captures this inequality-enhancing enclosures process (globalization having started in the 1850s). For instance, Dell (2010) notes that the Peruvian population living in *haciendas* nearly doubled between 1845 and 1940 due to globalization. Before this, communal land was widespread across the Periphery (due to land-abundant settings, see Herbst [2014]), representing up to 50% of total land in Bolivia on the eve of the First Globalization (Bauer 1991).

However, in labour-abundant Western Europe, consistent with traditional trade models (Hechsher-Ohlin), integration had the opposite effects to the ones in the land-rich New World. In Europe, lower food prices, on top of decreasing the power of the landed classes (rents dropped), seem to have contained the rise in inequality associated with booming industry and finance (O'Rourke and Williamson 1999). Similarly, in other labour-abundant and land-scarce regions, like Japan and East Asia, market integration also led to higher wage-rental ratios, reducing inequality and the power of the landed classes (Williamson 2011).

As an illustration of the magnitude of these effects: the "invasion" of cheap grain from the New World led to increasing average heights of Britons for the first time after a long decline since the Industrial Revolution (Meredith and Oxley 2014). Yet, in grain-exporting Argentina, despite famously achieving exceptional growth levels during this period, excepting landowners and farmers who became taller, average heights stagnated (Baten et al. 2009). Likewise, up North, the Mexican Revolution (1910-1924) was ignited by rising inequality between landowners and landless peasants following changing terms of trade (Dell 2012). Thus, only after the divergent effects of the First Globalization on inequality, did Latin America and Africa reach comparatively high inequality levels –joining the Western Europe and its Offshoots (Figure 3).

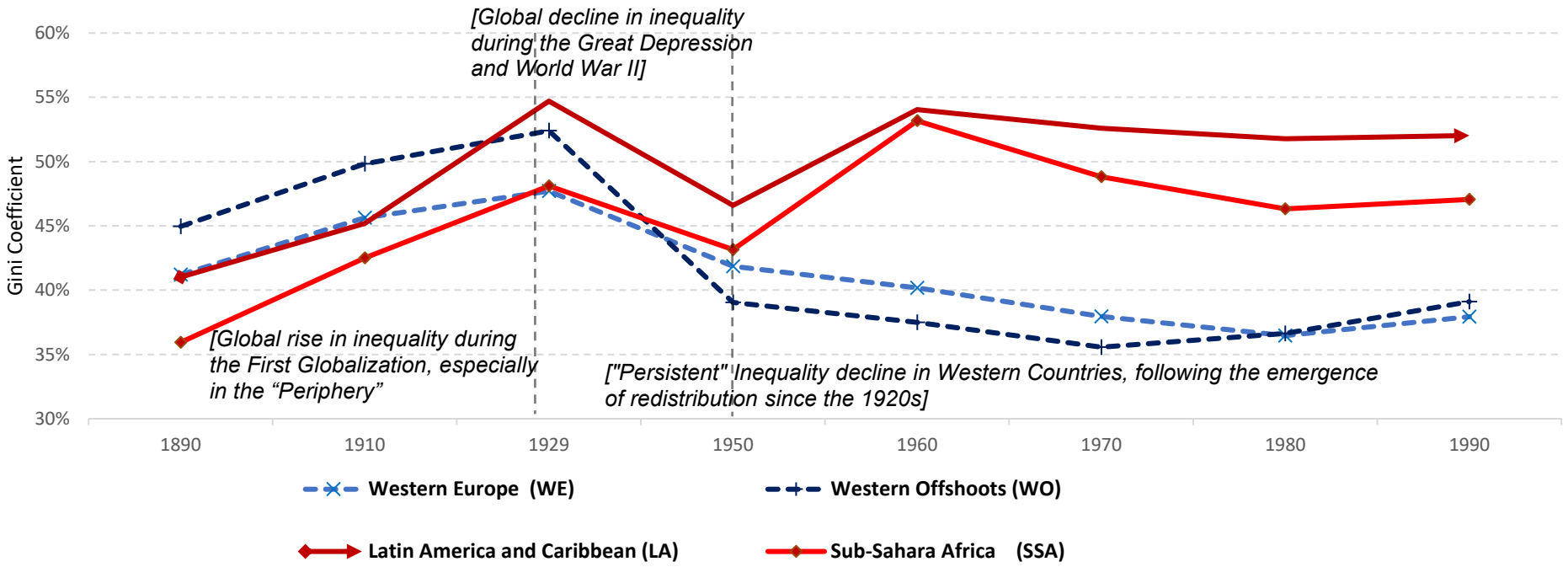
III.3. The "Great Divergence" in inequality levels during the 20th century

Since the First Globalization, inequality levels have remained comparatively high across Latin America, Africa, and India (Prados de la Escosura 2007, Moatsos et al. 2014). On the contrary, Western Europe and its Offshoots, despite leading inequality levels until circa the 1920s, have experienced a significant inequality decline. There, fiscal policy became increasingly progressive following an unprecedented democratization process during the early 20th century: the advent of mass politics (Lindert 2004, Piketty 2013). For the first time in history, by being represented in politics, poorer households had a say on taxation and expenditure decisions, which led to a fiscal policy that promoted equality -not inequality as beforehand.

As Figure 3 shows, this translated into an exceptional inequality reduction during the 20th century referred to as the "Great Levelling": the advent of a highly redistributive Welfare State. In this line, Williamson (2015) has argued that North America and Western Europe became less unequal than Latin America in the 20th century as the latter missed the "*greatest levelling of all time*".[17] However, Williamson has not explained why Latin America missed the *Great Levelling* nor what did the region miss. Then, the fundamental question is: Has the periphery (e.g., Latin America) missed the emergence of "inclusive" economic institutions -as suggested by ES and AJR- or the formation of a robust fiscal and redistributive capacity?

[17] On the "greatest levelling of all time" in North America please see Lindert and Williamson (2016, pages 194-218).

Figure 3. The "Great Divergence" in inequality levels during the 20th century



Notes: Well-known factors affected worldwide inequality dynamics during the 20th century. These are: (I) a transport revolution (i.e. steamships, trains and canals) that triggered the First Globalization in the 1870s and led to increasing inequality (related to booming international trade and finance) across all regions, especially in the Periphery – see Williamson (2006, 2009, 2011), and (II) its subsequent bust during the Great Depression and World War II, which eroded wealth value (due to inflation and capital destruction) and limited international trade and finance (due to war disruptions and rising protectionism) – see Piketty (2013). Then, (III) When the global disruptions (to international trade and finance) maintaining global inequality subdued dissipated in the post-war period, inequality raised again in Latin America and Africa. Whereas a robust redistributive capacity maintained inequality (relatively) under check across Western countries.

Sources: Own elaboration based on the regional Gini estimates from Moatsos et al. (2014). These measures correspond to the regional average of the estimates of income inequality for each country during the period studied. The inequality estimates correspond to the best available evidence on historical inequality dynamics during the 20th century. These measures are historical reconstructions based on a wide range of historical records documenting within-countries income differences, including social tables, heights, real wages, and factor prices among other pieces of evidence.

V. Explaining the "Great Divergence" in inequality levels

IV. 1. The hypothesis: democratization, fiscality and redistribution

As previously identified via the "reverse causal inference" approach, the fundamental divergence between Western countries and the Periphery is in fiscal and redistributive capacity, rather than in the degree of asset and opportunity disparities. This post-colonial *"Great Divergence"* in fiscality is well shown in Figure 4 below, depicting how taxes became increasingly progressive both in level and structure over the 20th century in the West relative to the Periphery (here Latin America for which long-term data exits). Thereby, the key research question that remains unanswered is: why has regressive fiscality not been reformed in the Periphery?

Our thesis is that the limited political voice of poorer households (associated with a lack of democratic checks over the 20th century) in Latin America, Africa and India undermined the formation of: (a) the credible commitments from the state required to build fiscal capacity (namely via direct taxation); and (b) the political pressure from citizens to levy and channel substantial fiscal income towards redistributive capacity. In the rest of this paper, we empirically test whether democratization patterns explain the "*Great Divergence"* in fiscal and inequality levels that took place during the 20th century.

IV. 2. The political economy of redistribution

The literature shows that democratization leads to greater fiscal redistribution -see Acemoglu et al. (2015) for a review. Concerning the theory, Meltzer and Richard (1981) famously argued that an enlargement of the franchise should lead to a more progressive fiscal policy, both in revenue collection and expenditure. Democratization processes, by incorporating poorer households into politics, change the position of the decisive political actor in the income distribution. Therefore, the greater political voice of relatively poorer households should lead to a more progressive fiscality (e.g., taxing income and profits that concentrate at the top rather than consumption) and to more redistributive spending (e.g., generous social benefits).

Democratic checks also allow to build a solid fiscal contract. That is when citizens trust the state and thereby are more willing to pay taxes. Checks and balances on the executive (notably on expenditure decisions) help guarantee a state intervention that chases public goals, and thus, permits the formation of credible commitments that are essential to enhance the extractive (tax) capacity of the state (Acemoglu 2005, Dincecco 2015, Besley 2020). Citizens are more willing to pay taxes if the state is under the "control" of society, and as such, committed to redistributing back to citizens a substantial part of taxes via social benefits or public goods. Thus, while limited checks fuel corruption (diverted spending) and erode compliance, democratic accountability solidifies the fiscal contract and increases tax collection.

Figure 4: The "Great Divergence" in fiscality over the 20TH century

Figure 4a. Direct taxation (income and property taxes as pp. of GDP) across time.

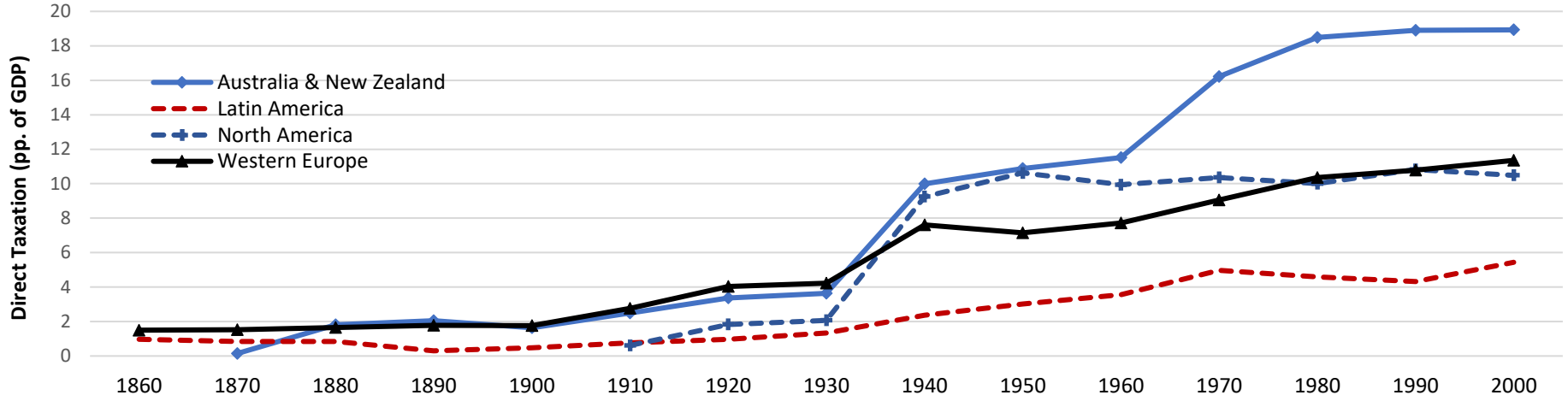
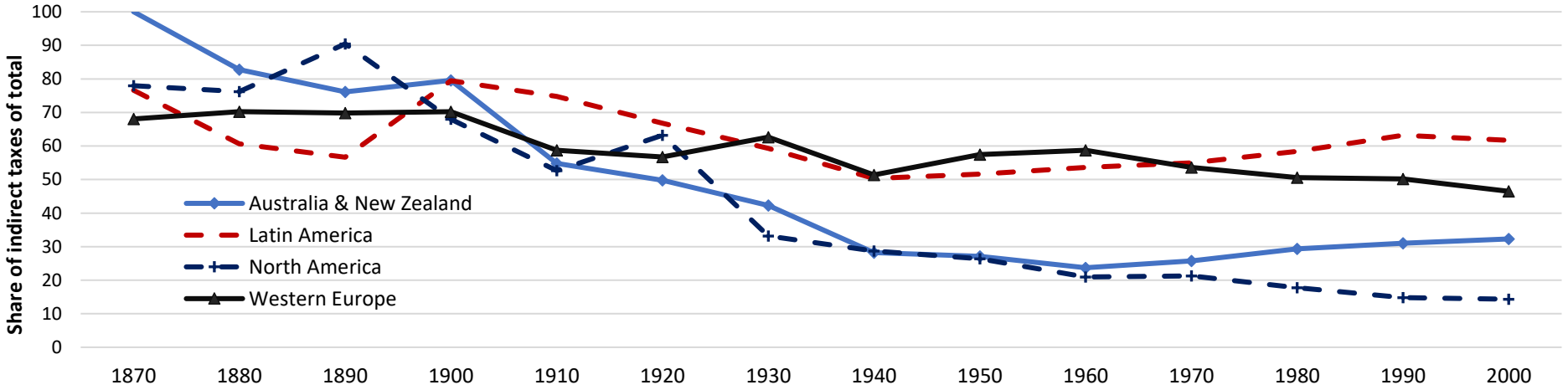


Figure 4b. Indirect taxation (as % of total taxes) across time



Sources: Own elaboration based on data from Andersson and Brambor (2019) on Government revenue from 1800 to 2012. Regional averages are unweighted

However, this does not mean that democracy *per se* leads to higher fiscal redistribution. The likelihood of implementing progressive taxes and spending is only high in full democracies, i.e., when the franchise is closer to universal suffrage, and thus poorer households have access to political voice. Whereas *Elite Democracies*, which exclude the poor via wealth, ethnic or literacy requirements, are likely to prefer regressive fiscality benefiting the enfranchised few. In this line, Aidt et al. (2009), based on an empirical analysis of OECD countries since the 19th century, showed that progressive taxes are only likely to emerge in places that achieved (or got very close) to universal franchise, while democratization processes excluding the poor may even increase indirect (regressive) taxes.[18] This explains why *Elite* Democracies that populated Europe and the Americas over the 19th century kept inequality-enhancing institutions. As Lindert (2004) shows, poorer households' access to politics was necessary for redistribution to emerge.

In sum, following our thesis, democratization, through stronger political participation of poorer households and checks and balances on the executive, would encourage the formation of: (I) the credible commitments (or "fiscal contract") necessary to raise substantial direct taxes from citizens (i.e., for building fiscal capacity), and (II) the political pressure required to mobilize such resources towards redistributive capacity. In particular, checks and balances should increase redistribution not only via more revenue collection but also due to greater expenditure efficiency (more revenue is available for redistribution due to more compliance and less diverted spending). Democratization then leads to greater redistribution through these mechanisms.

IV. 3 Empirical research Strategy

To the best of our knowledge, the literature has not yet empirically tested how democratization affects fiscal redistribution and progressives *per se* (as opposed to using imperfect measures such as specific taxes or social spending), nor has differentiated democracy effects on "underlying" economic disparities (proxied by market inequality) from progressive fiscality and redistribution across former colonies. Also, as Acemoglu et al. (2015) shows, the literature studying how democracy affects distribution has not accounted for the endogeneity of political institutions. Thus, causal interpretations of their findings are difficult.

As such, based on a quasi-experimental strategy, this research aims to identify the causal impact of a history of democracy over the 20th century on inequality and redistribution today. For this, we will develop an Instrumental Variable (IV) strategy to address the endogeneity of political institutions. Building on AJR (2001), this research exploits historical European mortality as an instrument for the "inclusiveness" -the degree of political inequality

[18] The same applies to expenditure. Elite democracies are expected to prefer channelling public proceeds to services benefiting the enfranchised few rather than excluded many, i.e., more ownership protection and less social benefits.

as done in the literature, e.g., AJR (2002, 2005), Rodrik et al. (2004) and Acemoglu et al. (2014). Following Angrist and Pischke (2010), this IV method is at the vanguard of research designs to study the causal impact of democratic institutions.

The underlying assumption is that in areas with more benign environments for settlers (low mortality), Europeans settled in larger numbers, which eventually led to a history of *inclusive* political institutions. European colonizers guaranteed more political rights to European settlers, thus countries with more settlers relative to natives ended up with less political inequality. Then, this early emergence of relative political equality (not economic as we have shown so far) facilitated democratization. But, while AJR looks at how *inclusive* institutions affect development, we study how *inclusive* this development has been. Thus, rather than looking at income per capita, we study the effects of democratization on how income is being distributed across households. That is via market mechanisms (reflecting how *inclusive* economic institutions are*)* and then via taxes-and-transfers systems (reflecting fiscal and redistributive capacity).

Concerning the validity of the instrument, some may argue that settler mortality affects outcomes via other more "informal" institutional channels, like culture, trust or social capital. While we do add extra controls for this in Appendix (B), notably for colonizers 'origin (culture), given that our main empirical results remain largely unchanged, these aspects seem secondary. Yet, it is still difficult to rule out the possibility that the observed results, to a certain extent, may reflect the impact of these other mechanisms. The following results should then be interpreted not as the effects of democracy *per se*, but of a larger "inclusive" political arrangement, including both formal and informal rules and practices. Yet, culture (religion), trust and social capital were all there before the 20th century but did not lead to the *Great Divergence* in fiscality and inequality -which only took off later with democratization. Given this and that our findings do not change when we add these other factors, we prefer to emphasize democratization *per se*.

Others may argue that settler patterns also matter via education, e.g., they could say that Glaeser et al. (2004) showed a strong connection between settler mortality rates and education. However, Acemoglu et al. (2014) find no support for the view that differences in settlers´ human capital explain subsequent institutional patterns but find evidence that institutional development did affect subsequent educational outcomes –explaining Glaeser et al.'s results. This means that colonization patterns affected a multifaceted outcome (development) via political arrangements, but this is not an issue as the exclusion restriction holds -as Acemoglu et al show. That is to say, this exogenous IV may have indeed shifted more than one consequential endogenous variable (related to development), but here we focus on studying distributive outcomes. That is how these development outcomes (like income and education) are being distributed and/or taxed to assess, *inter alia*, whether the causality chains stressed by ES and AJR et al. hold.

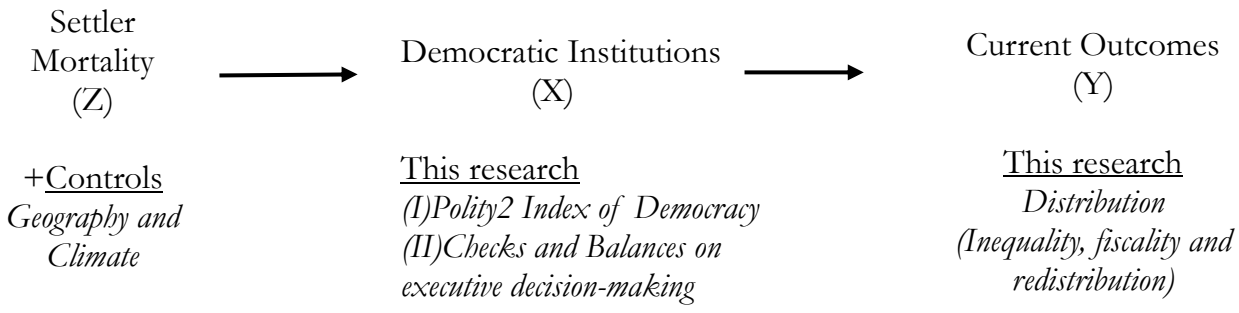
V. 4. Building the IV model

As clarified before, the goal of the empirical section is to assess the impact of the key mechanisms that, following the reverse causality analysis, would answer "what causes inequality differences". Also, by applying our analytical framework to this revised version of AJR´s model, we can test "what institutional mechanisms matter more" for explaining cross-country inequality. Therefore, more than achieving perfect causal identification (which in cross-country is difficult), our goal is to test whether when applying and even improving AJR´s seminal identification strategy, the analytical and historical arguments developed so far hold. That is if, after instrumentalizing political institutions, the primordial mechanism of persistence is fiscal and redistributive capacity, rather than differences in "structural" (underlying) economic disparities.

Given that the "Great Divergence" of fiscal and inequality levels took place during the 20th century, we will assess the effects of democratization during this period on our outcomes. To quantify a history of democratic institutions we construct two variables based on the Polity project database -which is widely used and well fit for this purpose (e.g., see Glaeser et al. 2004).[19] These measures correspond to the average value during the 20th century of (1) the Polity Democracy index (measuring the extent of democratization) and (2) Executive constraints (measuring checks and balances on the executive).

The Democracy index captures the extent of democratisation of a political regime, ranging from 0 ("absence of democratic institutions") to 10 ("fully institutionalized democracy"). It considers executive recruitment (e.g., elected or not), constraints on authority, and the degree of political participation and competition, among others. In turn, Executive Constraints measure the extent of institutionalized constraints on the decision-making powers of the executive, including, *inter alia*, the strength and independence of the judiciary and the oversight of the legislature and other accountability groups on the executive. Executive Constraints range from 0 ("unlimited authority") to 7 ("executive parity or subordination").

Summarizing the Instrumental Variable Strategy



[19] Following the authors, while Polity is the best fit to capture a history of inclusive political institutions, this data should be interpreted as capturing *de facto* not merely *de jure* changes in democratic conditions – as done here.

Figure 5: Settler Mortality, Democratic History and Comparative Inequality levels

Figure 5a. From colonial endowments to democracy patterns

Historical settler mortality and democratic history

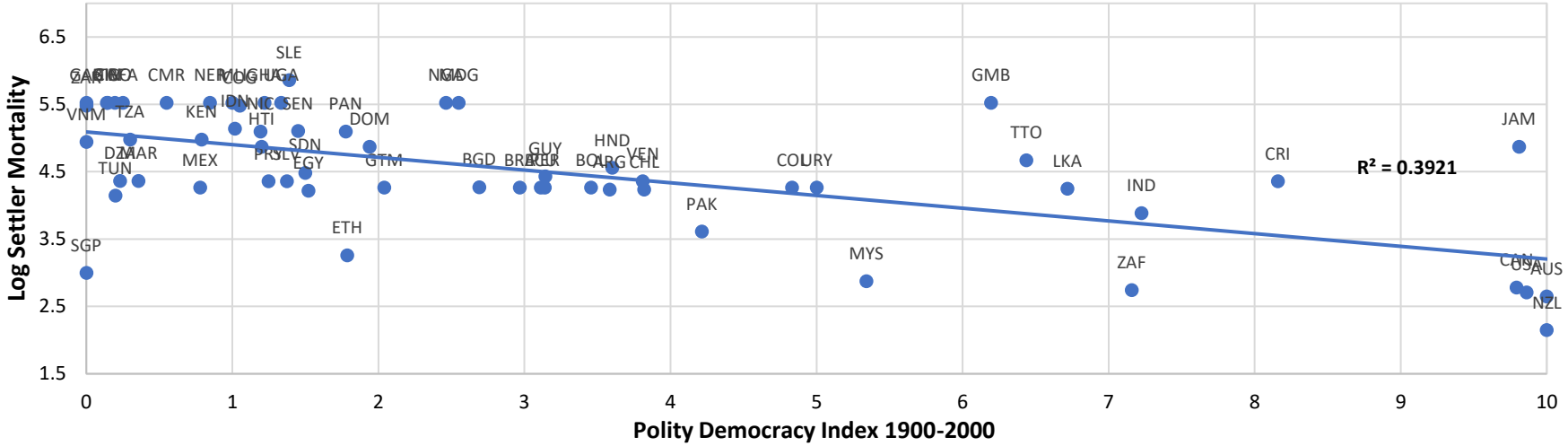
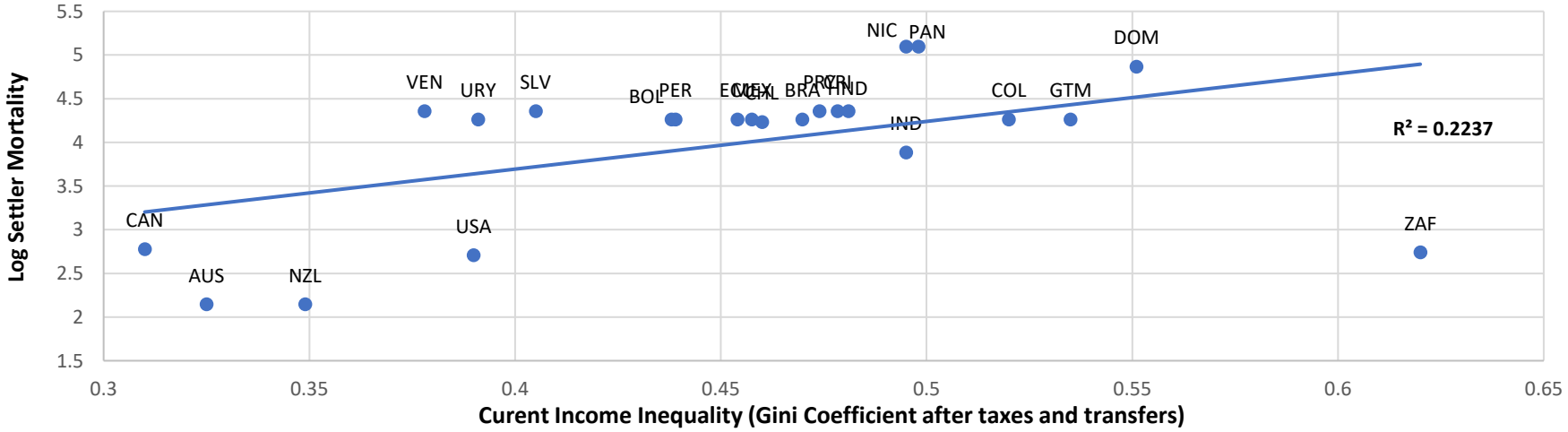


Figure 5b. From colonial endowments to inequality patterns

Historical settler mortality and income inequality



Consistent with AJR (2001) and other studies using this instrument, Figure 5a (above) depicts a strong connection between historical settler mortality rates and a history of democratic institutions over post-colonial times, in this case, the 20th century. Likewise, in line with the macro-narrative of AJR, Figure 5b shows that settler mortality patterns not only lead to divergent democratization processes but also to different inequality levels between former settler colonies and non-settler colonies, e.g., in Western Offshoots versus Latin America. As such, this supports ES and AJR´s main hypothesis stressing political capture.

Yet, Figure 6 below suggests that inequality patterns are primarily explained by divergent redistributive capacities (resulting from distinct fiscal equilibriums: regressive or progressive), rather than by differences in the degree of "institutionalized" inequality of the economic terrain (recall Figure 1). While Figure 1 depicted a lack of relationship between market inequality and historical settler mortality rates, Figure 6 shows a clear connection between settler mortality, redistribution, and the level of fiscal progressivity. This picture is robust to using alternative data (see Appendix B). Thus, when we delve into the underlying (more granular) inequality dynamics, the data challenge ES and AJR´s stressed mechanisms.

This reinforces the imperative of studying fiscality and redistribution dynamics to explain the *Great Divergence* in inequality. The econometric analysis developed next will confirm, by arguably establishing causality by revising AJR (2001) IV method, that distinct democratization processes during the 20th century explain these fiscal equilibriums and redistributive capacities, and thus cross-country inequality today. For establishing causality using this instrument, the literature tells us that it is fundamental to consider a set of relevant controls in our model, including geography, climate, and pre-colonial conditions.

Firstly, the historical evidence shows that colonial states built on pre-colonial institutions (social, labour, and tributary systems) to develop their administrative and fiscal systems; meaning that indigenous development influenced subsequent institutional and state capacity development in colonized territories (e.g., Frankema and van Waijenburg 2014). Based on AJR (2002) data, we thus control for native population density circa 1500 to account for pre-colonial development and the relative abundance of native labour. As a further robustness check, we also control for the presence and complexity of native forms of government using the State History Index by Borcan et al. (2018). This accounts for accumulated state capacity before European colonization, permitting us to go one step further by considering the large differences in pre-colonial state capacity, e.g., between places with strong states like the Incas and Mughal India, which provided public goods and levied tribute, and areas where forms of government rarely surpassed the tribal level such as in North America, New Zealand, and Australia.

Figure 6: The Fiscal Origins of Comparative Inequality Levels

Figure 6a. The "Great Divergence" in fiscal redistribution

Settler mortality and redistribution

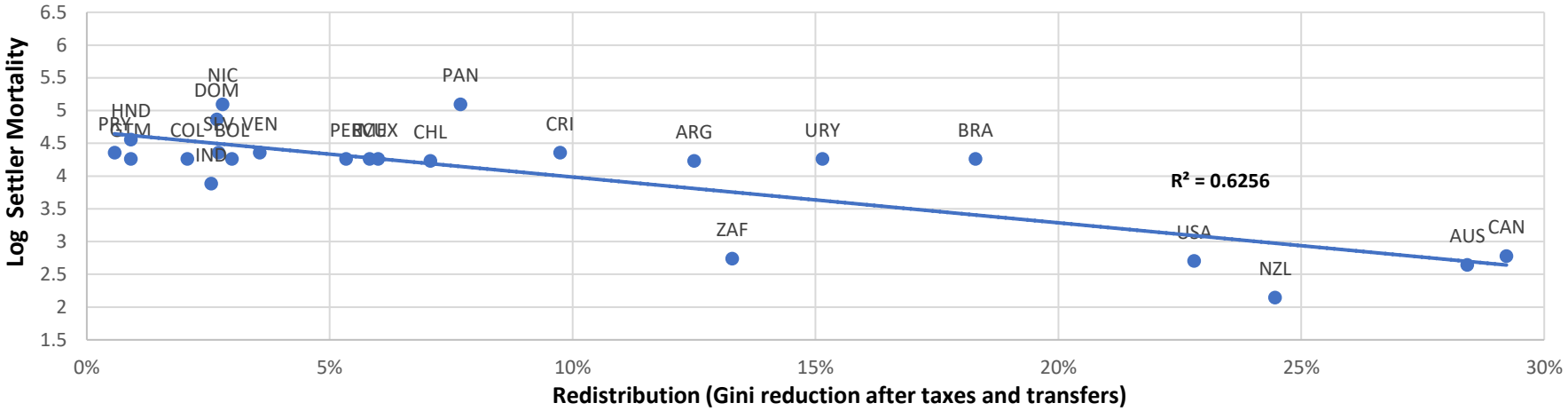
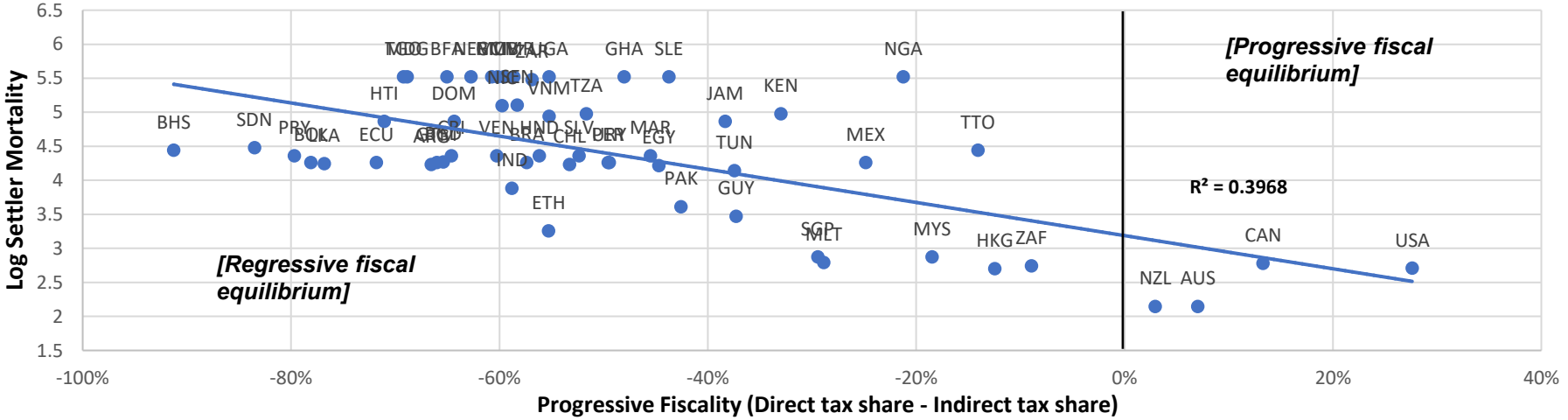


Figure 6.b Fiscal equilibriums: explaining the divergence in redistribution

Settler mortality and progressive fiscality



Note: Progressive fiscality is Direct-taxes (% of total taxes) - Indirect-taxes (% of total taxes). Direct taxes are on income, profits, and capital gains of individuals taken as the average for the 21st century (2000-2020 period) based on the UNU-WIDER government revenue database (2021). Indirect ones are on goods and services.

Secondly, following McArthur and Sachs (2000), we incorporate geography and climate into our controls as accounting for these factors is fundamental to achieving causal estimations when using settler mortality as IV. Mortality rates, like the suitably for slave-based plantations, are more pronounced in tropical areas (i.e., close to the equator and/or with warmer weather), and thus, not accounting for these variables could produce bias -historical settler mortality rates could correlate with the omitted variables (geography & climate), which may themselves have an impact on the outcome variables. Thus, we account for these factors.

Thirdly, based on the discussion and advancements in the correct usage of the settler mortality instrument, we revise its application. Following AJR (2012) and Acemoğlu et al. (2014), we use a capped version of the instrument (at 250 per 1,000) to better capture the variation in mortality rates across countries.[20] Moreover, following Albouy (2012), we do not use the same data as AJR to construct our instrument. Acemoglu et al. (2001) data have potential measurement error as the authors had to extrapolate (based on assumptions) some settler mortality rates to address the lack of historical evidence on mortality in some colonies. This research then uses Albouy´s revised version of AJR (2001) data, which includes a set of new mortality rates based on within-country historical evidence, i.e. not extrapolated. Our model will then use the revised and capped mortality data as it is closer to capturing the historical variation in mortality -thus minimizing measurement error and potential sources of bias. In any case, the findings are robust to using the original AJR data -see Appendix B.

Fourthly, all the regressions use clustered standard errors to correct potential clustering effects (Albouy 2012). That is to account that some neighboring countries share mortality estimates and that modern country limitations are not necessarily historical ones, so our historical observations may be subdivided into smaller-sized modern countries ("clusters"). The regressions are then clustered by settler mortality. This makes standard errors consistent in the presence of potential cluster-based sampling and/or treatment assignment. In Appendix B, we show that the results also remain significant when we alternatively use normal and wild bootstrap cluster-robust errors. Wild bootstrap is useful to further check inference reliability when sample size and/or clusters are small (as in this research, AJR´s core sample has 63 observations), and thereby, large-sample assumptions may not hold (e.g., Roodman et al. 2020). As shown in Appendix B, the significance tests indicate that this is not the case.

[20]*"The 250 per 1,000 estimate was suggested by A.M. Tulloch, the leading authority of the day, as the maximum mortality in the most unhealthy part of the world for Europeans […] This capping strategy has several attractive features. First, provided that settler mortality is a valid instrument, a capped version of it is also a valid instrument. Second, on a priori grounds one might expect that mortality rates above a certain level should not have much effect on settler behaviour. Third, it is an effective strategy for reducing the impact of various types of measurement errors, which are likely to be present in settler mortality data". (AJR 2012).* Please see their paper for details on how this capping strategy, *inter alia*, reduces the impact of outliers and potentially contaminated data.

5 First Stage Results

As depicted in Table I, historical settler mortality is a strong and relevant determinant of democratic political institutions during the 20th century. The explanatory power of the IV remains robust once we account for all the relevant controls discussed above, which validate the choice of our instrument. In Appendix B, we present the results of all the relevant tests, including for under-identification, weak instruments, and overidentification, which further confirm that our identification strategy is correct.

Results Table I. First Stage Results

Table Ia. Dependent: Polity Democracy index (1900-2000)	(1)	(2)	(3)	(4)
Settler Mortality Revised	-2.120***	-1.738**	-1.920**	-2.232***
	(0.370)	(0.526)	(0.539)	(0.448)
Geography & Climate controls	no	yes	yes	yes
Native State History by 1500			-3.981*	-6.279**
			(1.558)	(2.149)
Indigenous Population Density by 1500				0.349
				(0.311)
_cons	12.54***	10.84***	11.22***	12.72***
	(1.813)	(2.326)	(2.205)	(1.762)
Countries [N]	61	61	60	60
R^2	0.403	0.434	0.452	0.519

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table Ib. Dependent: Polity Checks & Balances (1900-2000)	(1)	(2)	(3)	(4)
Settler Mortality Revised	-1.160***	-1.069***	-1.129***	-1.323***
	(0.160)	(0.246)	(0.240)	(0.243)
Geography & Climate controls	no	yes	yes	yes
Native State History by 1500			-1.553	-2.983*
			(0.967)	(1.295)
Indigenous Population Density by 1500				-1.926
				(1.325)
_cons	8.813***	8.598***	8.695***	9.627***
	(0.827)	(1.222)	(1.083)	(1.008)
Countries [N]	61	61	60	60
R^2	0.403	0.558	0.581	0.595

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: Geography & Climate controls are absolute latitude (distance from the equator normalized between 0 and 1), mean temperature, and being landlocked or coastal (1 or 0). The regressions use clustered standard errors.

IV. 6. Methodological notes

The sample of 24 countries used for the main IV estimations on redistribution and market inequality presented next in Table II includes all former colonies for which comparable and reliable data on redistribution and pre-taxes-and-transfers inequality is available –see Section II. This sample includes all Latin America, Western Offshoots, as well as South Africa and India – for which comparative inequality data before and after taxes and transfers are available using the OECD method. It goes without saying that due to the small sample size of the IV estimations on redistribution *per se*, the results and interpretations should be taken with care.[21]

Consequently, to test the hypothesis in a larger sample of countries we will also use two proxies of redistribution: (1) the extent of direct (i.e., more progressive) taxation to individuals (to income, profits, and utilities) as a share of GDP, and (2) degree of progressiveness of the tax structure taken as the difference between direct and indirect taxes (as % total taxes). This last measure captures the implicit bias of the political system for progressive taxes, i.e., the revealed preference for taxing progressive over regressive sources – namely income, profits and utilities (that concentrate at the top) rather than goods and services. This way of measuring the bias towards a certain type of taxation is based on Besley and Persson (2011).

For building these measures, the UNU-WIDER government revenue dataset (2021) provides comparative fiscal data for 54 former colonies on the two measures for the 21st century -which we use to more than double our sample size.[22] These 54 countries correspond to 86% of the original sample of AJR (54 of 63 countries), including almost all former colonies across all colonized continents, e.g., the Americas, Africa, Asia and Oceania. The relationship between these fiscal measures and redistribution has been already established in the previous sections of this paper, so here we will not delve into it.

Concerning the exclusion restriction, based on the literature discussed above, once we control for geography, climate and institutional and economic development before colonization, there are no reasons to believe that historical settler mortality affects our outcome variables through other channels than political institutions. For ensuring this, the results presented in Table II include all these controls. Moreover, to further evaluate the consistency of the results, we develop a series of additional robustness checks to our main findings in Appendix B, including taking into consideration the colonizers ´origins (e.g., British or French), excluding Western Offshoots from the sample, and alternatively using IMF tax records. All the results and conclusions developed next are robust to these tests.

[21] That is especially in terms of extrapolating the results to other former colonies, notably in Africa or Asia.
[22] This data was used for instance to update the results of Besley and Persson (2011) in 2021.

IV. 7. Main results and interpretations

The IV results presented below show that, in line with the argument developed in this research, there is a relevant and significant relationship going from democratization over the 20th century, especially strong checks and balances on the executive, to fiscal and redistributive capacity today (Table IIa), while we do not find any evidence of a significant connection between a history of democratic institutions and a more level economic playing field (Table IIb).

Table IIa proves that a history of democracy during the 20th century is the fundamental determinant of fiscal and redistributive capacity, and thereby, of comparative inequality levels. As shown in columns (1) and (4), a history of democracy, in particular of checks and balances, have economically large and statistically significant effects on redistributive capacity: a 1-point increase in the average Polity Democracy index during the 20th century leads to a 1.5 percentage points (pp) higher Gini reduction via taxes and transfers. In turn, columns (3) and (6) indicate that this results from the connection between a history of democracy and greater fiscal capacity: a 1-point increase in Democracy leads to 0.8 GDP points higher direct taxation. Even for any taxation level, a democratic history and executive oversight lead to a more progressive fiscality: a 1-point increase in the Democracy Index is associated with a 7.3 pp higher prevalence of direct (progressive) over indirect (regressive) taxes – see columns (2) and (5).

These findings confirm our thesis: the development of a robust fiscal and redistributive capacity is largely determined by democratic conditions (notably strong checks and balances). As columns (3) and (6) indicate, when states are checked by citizens with access to political voice, they can issue the necessary credible commitments to extract substantial direct taxes. In turn, these checks also ensure that poor and average households' preferences for progressive taxation will prevail against the elite´s regressive bias –as columns (2) and (5) show. Then, the same political voice which checks (and therefore facilitates) revenue collection also checks expenditure decisions, and as such, will make sure that a substantial part of the additional revenues coming from citizens is redistributed back to them through social transfers. As depicted in columns (1) and (4), this leads to a higher redistributive impact.

Tacking these mechanisms together, going from a scarcely democratic 20th century as in Latin America to a "fully" democratic one as in Western Offshoots (from 3.5 to 10 Index) is associated with a 6 points increase in direct taxes (% GDP), 47.6 pp higher prevalence of direct taxes over indirect ones (as % total taxes), and a 10 pp higher Gini reduction via redistribution. The impact of democratization is therefore very large and relevant, a 10% higher redistribution is almost twice the average in Latin America (6%). In turn, 6 points increase in direct taxes is 3 times the actual level in the region (2% of GDP), and a 47.6 pp higher progressive fiscality would lead to closing the gap in direct taxation with Western Europe (45 pp).

Results Table II. IV Results: The Fiscal Origins of Comparative Inequality levels

Results Table IIa: History of Democracy, Redistribution and Fiscal Capacity

Reg	(1) Redistribution (%Gini reduction)	(2) Progressive Bias (% total taxes)	(3) Direct Taxes (%GDP)	(4) Redistribution (%Gini reduction)	(5) Progressive Bias (% total taxes)	(6) Direct Taxes (%GDP)
Polity Democracy Index	1.510***	7.324***	0.883***			
1900-2000	(0.291)	(1.621)	(0.215)			
Checks & Balances (Polity subindex)				2.508***	11.86***	1.417***
				(0.662)	(2.272)	(0.302)
Geography & Climate	yes	yes	yes	yes	yes	yes
Native Population Density by 1500	-3.016***	-2.724	-0.176	-3.782***	-3.081	-0.224
	(0.474)	(2.516)	(0.251)	(0.494)	(1.883)	(0.196)
Native State History by 1500	3.528	11.18	-0.716	6.623	2.986	-1.721
	(4.338)	(22.36)	(2.020)	(4.742)	(18.73)	(1.763)
_cons	-0.957	-84.50***	-1.657	-4.645*	-112.5***	-4.962**
	(1.308)	(15.58)	(1.716)	(2.239)	(15.31)	(1.607)
Countries [N]	24	53	54	24	53	54
R2	0.864	0.212	0.460	0.884	0.371	0.566

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Notes: Progressive Bias is Direct-taxes (% of total taxes) - Indirect-taxes (% of total taxes). Direct Taxes correspond to taxes on income, profits, and capital gains of individuals taken as the average for the 21st century (i.e. 2000-2020 period) – founded on the UNU-WIDER government revenue database (2021). Indirect taxes are taxes on goods and services, - taken also from the UNU-Wider dataset for the same period. Redistribution is measured as in the rest of this paper based on the OECD method for circa 2011-2017. The "Geography & Climate controls" are absolute latitude (distance from the equator, normalized between 0 and 1), mean temperature, and being landlocked or not (1 or 0). All the regressions use clustered standard errors.

Concerning Table 2b results, the IV estimations show there is no significant effect of a history of democracy on the extent of asset and opportunities disparities. As shown in columns (1) and (5), a democratic 20th century, like checks and balances, is not associated with a more level economic playing field -quantified by market inequality levels using OECD-ECLAC data. To test this in a larger dataset, we can use the market Ginis from the Standardized World Income Inequality Database (SWIID), which provides greater coverage at the expense of data quality.[23] This data was used for instance by Acemoglu et al. (2015) to assess the effects of democracy on distribution. Yet, even when using this larger dataset covering 53 countries (84% of AJR sample), we find no evidence of any significant effects –see columns (2) and (4). Thus, democratization does not appear to lead to a less unequal economic playing field.

Even when we analyse the distribution of assets *per se*, our findings are further confirmed. Here, we focus on education because – as noted before - the literature has stressed it as a key mechanism of inequality persistence. That is also because, thanks to the dataset compiled by Barro and Lee (2013), education Ginis (using education years) can be computed since the 1950s. Based on this, we use the reduction in education inequality from 1950 to 2010 as a proxy for the enlargement of opportunities in post-colonial times. In line with previous results, while columns (3) and (6) show that the expansion of opportunities (proxied by education) is not higher in more democratic (i.e., inclusive) countries, it shows that "extractive" ones (high pre-colonial density) had a significantly higher reduction in education inequality. Thus, we do identify a post-colonial convergence towards fewer underlying disparities.

Overall, the empirical results–consistent with the analytical and historical assessment- indicate that the *Great Divergence* in inequality is chiefly explained by distinct levels of redistribution and fiscality arising from divergent political trajectories over the 20th century. Following the IV model, if Latin America would have had a democratic 20th century, its redistributive capacity would be 10 points higher (16% instead of 6%), and thereby, inequality would be almost identical to its northern neighbour –just 3 Gini points higher than in the US (0.42 vs 0.39). Accordingly, challenging AJR and ES´s somewhat rigid view of institutional persistence, neither an "extractive" colonial past nor "exclusionary" (or autocratic) post-colonial politics seem to have been an obstacle to converging towards a more "inclusive" economic terrain during the 20th century.

[23] The SWIID maximizes comparability for the widest possible sample based on different inequality databases, like the OECD IDD, LIS, etc. (Solt 2020). However, because each database is constructed around its own method, the SWIID ensures less data quality/comparability than the OECD-ECLAC sample used here.

Results Table IIb: History of Democracy, Market Inequality and Asset and Opportunities Disparities.

Reg	(1) Market Gini (OECD method)	(2) Market Gini (SWIID)	(3) Relative change Education Gini (1950-2000)	(4) Market Gini (OECD method)	(5) Market Gini (SWIID)	(6) Relative change Education Gini (1950-2000)
Polity Demo. Index 1900-2000	0.00706	0.00636	-0.0164			
	(0.0102)	(0.00901)	(0.0205)			
Checks & Balances (Polity subindex)				0.0117	0.0102	-0.0270
				(0.0160)	(0.0138)	(0.0325)
Geography & Climate	yes	yes	yes	yes	yes	yes
Native Population Density by 1500	0.0117	-0.00287	-0.345**	0.00816	-0.00339	-0.325*
	(0.0145)	(0.00834)	(0.128)	(0.0114)	(0.00795)	(0.137)
Native State History by 1500	-0.0653	-0.0609	0.0156	-0.0508	-0.0654	0.0162
	(0.122)	(0.0559)	(0.0218)	(0.108)	(0.0593)	(0.0216)
_cons	0.422***	0.396***	-0.707***	0.404***	0.377***	-0.655***
	(0.0488)	(0.0451)	(0.121)	(0.0643)	(0.0676)	(0.149)
Countries [N]	24	53	54	24	53	54
R2	0.068	0.155	0.032	0.119	0.208	0.077

Standard errors in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001

Notes: Market Gini (OECD method) is based on the OECD-ECLAC sample– latest available year. The SWIID (2021) Market inequality Gini corresponds to the average between 2010-2018 for each country -we use the average to minimize the measurement error. All the regressions use clustered standard errors.

VI. Exploring the results

V.1 The convergence of economic institutions

Famous Latin American novels such as Isabel Allende's "The House of the Spirits" (1982) or Garcia Marquez's "One Hundred Years of Solitude" (1967) tend to depict a world where, while generations pass, the social structure stays the same and history seems to repeat itself at the expense of the unfortunate masses. In a similar fashion to *magical realism* novels, the narrative of *institutionalist* studies -e.g., ES, AJR and followers- seems to imply that economic institutions during colonialism (and their associated distribution of assets and opportunities) in Latin America, India, or Africa, like *Deus ex machina,* were transferred almost untouched from colonial times to the 21st century, while major post-colonial events passed without leaving a trace.

However, as depicted in Table 4 below, the distribution of assets and opportunities across the Periphery is far from being persistently unequal and has been improving during the second half of the 20th century (for which data is available). As explained below, this post-colonial convergence towards "inclusive" institutions has happened thanks to (not despite) state intervention. In line with our historical and empirical tests, new evidence shows that in Latin America, Africa and India, access to assets and opportunities has significantly expanded over the 20th century (e.g., Astorga et al. 2005, Prados de la Escosura 2015). This has translated into a significant convergence in terms of access to education and health with OECD countries.

Yet, while the institutional change to less underlying disparities, like the massification of education, was led by democratisation in Western nations (Lindert 2004), this was not necessarily the case in other regions (e.g., Kosack 2012, Paglayan 2021). In this line, Duflo and Banerjee (2011, 2014) have shown how economic institutions (e.g., access to education, healthcare, credit, and opportunities more broadly) can become more inclusive (or "pro-poor") even in places with "bad" political institutions à la AJR, like in Africa or India. Following Paglayan (2021), it seems that democratizing access to public services and opportunities also serves the goals of autocrats, including nation-building, promoting loyalty and development.

The latter was notably the case in Latin America, where institutional change towards inclusive economic institutions took place in the state-led industrialization period (1930s-1980s). Following adverse terms of trade since the 1920s and the new theories of ECLAC´s *structuralists*, Latin American governments opted for an inward-looking model of development that sought to favour workers and put behind export-led growth serving asset-holders (Bulmer-Thomas 2014). For achieving this, governments pursued a series of major reforms that aimed to address the remnants of an unequal colonial structure -which was seen as an impediment to industrialization (Sunkel 1992, Ferraz et al. 2020).[24] This led to revamping economic institutions.

[24] In this line, land reforms were seen as a structural solution to food supply bottlenecks for the industrial sector and to mobilize countless peasants living under semi-coercive regimes in *haciendas* toward industrial poles (Sunkel 1992).

The explicit goal of *structuralists* was to converge with the "centre" (i.e., Western countries) by modernizing the social and economic structure, and thereby, tackling its *structural* inequalities (Bielschowsky 2008). This period was then marked by a state-led restructuring of institutions via, *inter alia*, industrial policy, social legislation, land reforms, and notably democratizing education (see Table 4). Building on these efforts, after the recovery of the 1980s debt crisis, state-led developmental policies persevered -especially via fostering human capital. Public expenditure on education went from 2.8% of GDP in 1990 to 4.4% in 2010 in Latin America (Cruces et al. 2014). These reforms have translated into lower market inequality, notably due to smaller skill premiums associated with a reduction in human capital disparities (e.g., Lustig et al. 2013).

Table 4. Converging education inequality 1950-2010

Region	Gini 1950	Gini 2010	Relative change	ΔGap with Western Offshoots
Africa	81%	39%	-51.6%	-33 points
India	78%	41%	-46.5%	-28 points
Brazil	70%	23%	-67.1%	-38 points
Asia	67%	27%	-59.6%	-31 points
World	56%	26%	-53.5%	-21 points
Latin America	52%	24%	-54.6%	-19 points
Andean States	50%	23%	-54.7%	-18 points
Southern Cone	28%	17%	-41.0%	-2 points
Western Europe	25%	16%	-35.9%	0 points
Western offshoots	19%	10%	-48.0%	-

Note: Data from Ziesemer (2016), who measures education Ginis based on the data from Barro and Lee (2013). The Gini measures years of education disparities across the population aged above 15. Averages are unweighted.

However, this unprecedented change did not happen in the context of democratization.[25] The reforms towards lower "institutionalized" inequality were famously led by (mostly left-wing) populist "strongmen" (e.g. Peron in Argentina, Vargas in Brazil, Cardenas in Mexico, Ibañez del Campo in Chile, among many others), hegemonic parties (e.g., the Institutional Revolutionary Party which controlled politics in Mexico since the 1930s or the Justicialist Party in Argentina),[26] revolutionaries such as in Cuba and Bolivia in the 1950s,[27] and military regimes.[28] Interestingly, the long list of "strongmen" that marked the 20th century in Latin America, besides their disregard for legitimate democratic processes and efforts to erode checks and balances, all have in common a focus on improving the condition of poorer households through economic interventions (namely regulatory and social policy), not fiscal redistribution.

[25] Democratization in Latin America started during the 1980-1990s. During ISI, the average Polity2 Index remained negative in the region (i.e., closer to autocracy than democracy).
[26] The literature Nobel Prize laureate Vargas Llosa famously referred to the PRI rule as the "perfect dictatorship" due to its proficiency in arranging elections. For a review of populism please see Kaufman and Stallings (1991).
[27] In this line, Pérez-Cajías (2019) shows how the Bolivian Revolution of 1952 led to a significant institutional change in the delivery of education, notably in terms of enhanced access to the formerly excluded population. In Bolivia, the education Gini went from 72% in 1950 to 18% in 2010 (a 75% drop), almost reaching Western Europe (Table 4).
[28] For instance, Ferraz et al. (2019) show how the military pushed major reforms to weaken traditional elites in Brazil.

These non-fiscal interventions include, besides industrial policy, expropriations, red tape, macroeconomic policy to capture private rents (e.g., price-fixing and multiple exchange rates), and many other non-fiscal measures to favour workers over an elite of commodity-exporters, e.g., see Sachs (1989), Kaufman and Stallings (1991) and Edwards (2010). In line with our thesis, it seems that tackling inequality via fiscal redistribution necessitates the formation of a fiscal and political contract (the credible commitments) which are unlikely to form under non-democratic conditions -and less so under populist leaders who build support by polarizing society. Therefore, despite their strong pro-state and anti-elite rhetoric, Latin American strongmen proved powerless in building fiscal capacity and tackling regressive fiscal systems benefiting the elite.

VI.2 The divergence of redistributive and fiscal capacity

The following cases explore the relationship between democratization, fiscality and redistributive patterns, showing how, *ceteris paribus*, democratization rather than other factors, such as ideology or economic development, explain current inequality dynamics. The cases include the US in the context of Western Offshoots and Mexico and Chile for Latin America.

The US is an interesting case, despite being the richest country among Western offshoots, it has the lowest redistribution and fiscal capacity among them. Consistent with our thesis, this seems to be explained by a partially "inclusive" democratic history in the US, compared to Canada, Australia, and New Zealand. The US has (in)famously constrained the political participation of poorer households -notably through ethnic-based discriminatory laws- and especially so until the Voting Rights Act of 1965 which aimed to end the persistent political exclusion of Afro-Americans. In the US, only 32% of the total population voted during the 20th century, compared to 52% in Australia, 47% in New Zealand and 37% in Canada (Vanhanen 2000).

Likewise, Chile, despite being an OECD member and the richest Latin American country (in income per capita), its redistributive capacity is still 5 times lower than the OECD average. As in the rest of the Periphery, this is due to the lack of democratic checks. Chile experienced political stability and growth during the Pinochet regime (1973-1990) and the democratic transition in the 1990s. But, during this growth period, although social spending did not decrease (absolute and relative to GDP), fiscal incidence (both taxes and spending) became significantly more regressive (Abad and Lindert 2017). Only in the 2000s, when democratic institutions had solidified in Chile, did fiscal policy start becoming more progressive. Yet, redistribution is still way lower than in neighbouring Argentina and Uruguay: 7% versus 13% and 15%. In line with our thesis, Argentina and Uruguay have a similar development to Chile, but longer democratic histories which explain their greater fiscal and redistributive capacity.[29]

[29] Political participation in the 20th century in Chile stood at 14% of the population compared to 19% in Argentina and 27% in Uruguay (Vanhannen 2000). In turn, tax-to-GDP ratios stand today at 20%, 30% and 27% respectively.

Similarly, Mexico experienced relative political stability and growth under the hegemonic rule of the Institutional Revolutionary Party (PRI) from the 1930s to 2000. However, the leaders of the PRI, which had a very different ideology than the conservative Pinochet Regime, were also unable to build a robust redistributive capacity. The PRI could hardly issue the credible commitments from the state needed to build fiscal capacity. Citizens had no interest in trusting (nor financing with their taxes) a government marked by widespread corruption, no respect for democratic processes, and weak executive checks. This helps explain why Mexico´s tax-to-GDP ratio stands at 14%, lower than in Latin America (21%) and Africa (17%) and that redistribution in post-PRI Mexico is as low as in post-Pinochet Chile (approx. 6%), being 3-times lower than in neighbouring US and 5-times below fellow OECD members.

In line with our thesis, inequality in Latin America only has started to decline following the consolidation of democracy in the 2000s, which led to public spending becoming increasingly progressive (López-Calva et al. 2010, Lustig et al. 2013). This is epitomized by the establishment of targeted cash transfers in Brazil, Mexico, and Argentina. Yet, despite these advancements, redistribution is still 5 times lower than in Western states. In Latin America, limited democratic accountability over the 20th century hindered the formation of the fiscal contract and the political voice of citizens -the credible commitments and political pressure, necessary to levy and mobilize substantial revenue towards redistribution. The situation appears to be no different across Africa, where democratization, fiscal capacity and redistribution are very limited or practically inexistent, especially in sub-Saharan Africa (Odusala 2017).

VII. Conclusions

VII. 1 Core findings

Based on a pioneering interdisciplinary strategy (going from reverse to forward causal inference), this research developed a set of analytical, historical, and empirical points that call to shape our interpretation of the nature and causes of inequality. It chiefly did so by showing that compressing different historical periods, overlooking post-colonial historical processes and failing to disentangle institutional mechanisms has led to an over-simplification of the causality chains leading from colonialism to current outcomes. That is especially by:

1. Overstating the role of economic over fiscal mechanisms to account for inequality dynamics. In turn, we document the primordial role of fiscal capacity and redistribution.
2. Assuming that current inequality differences could be traced back to colonial times. In turn, we show that inequality levels (and associated economic and fiscal systems) were not so different between Western Europe and colonized regions until the late-19th century.
3. Overstressing colonial legacies and institutional persistence to explain contemporary outcomes. In turn, we identify the major impact of post-colonial events and institutional reforms.

Firstly, this paper documented the fundamental role of fiscal capacity and redistribution in accounting for inequality levels across regions, countries and historical periods. For doing so, the analytical framework used, by disentangling market inequality (reflecting economic disparities) from redistribution (reflecting fiscal capacity), was key to identifying the institutional mechanisms leading from colonialism to current inequality levels. The results of a revised version of AJR (2001) IV method adapted to this framework, showed that: What matters for explaining cross-country inequality differences are divergent fiscal capacities over the 20th century, rather than differences in the extent of economic inequality rooted in colonialism.

While in Western countries, progressive fiscality led to lower inequality levels since the 1920s. In Latin America, Africa, and India, despite a post-colonial convergence towards more "inclusive" economic institutions, inequality persists through a regressive fiscal equilibrium. The IV results, consistent with historical case studies, indicate that the prevalence of limited democratic checks in the Periphery over the 20th century undermined the formation of the state´s credible commitments and the political voice of poor citizens required to levy and mobilize substantial resources towards building fiscal and redistributive capacity. These checks allow states to credibly commit to efficient spending, and thus, build a fiscal contract that enables raising substantial direct taxes from citizens, who in turn expect that proceeds are redistributed back to them.

Consequently, what is actually persistent about the Periphery and explains their exceptional inequality is a limited fiscal capacity to tackle inequality through redistribution. To put it differently, what makes Africa, Latin America, and India comparatively unequal, is their state's persistent (in)capacity to extract substantial resources from their citizens. Under this new light, the so-called "extractive" nature of these states stressed by AJR seems rather misleading. States that are hardly able to enforce their exclusive right of taxation (reflected in their rampant shadow economies) and capture a marginal share of economic activity (reflected in their famished tax-to-GDP ratios) would actually benefit from having more extractive power.

In turn, the results call to nuance the role given to persistently *"extractive"* economic systems. The evidence revised consistently shows that the distribution of assets and opportunities in the Periphery is far from being persistently unequal. As reflected in their rather unexceptional levels of market and wealth disparities, Latin America and India appear to have converged to (relatively) more "inclusive" economies in the 20th century. For this, post-colonial institutional reforms played a major role by addressing colonial-era inequalities, especially in education and ownership rights. In a context when state-led industrialisation was a national priority, the Periphery put its efforts into tackling the remnants of its "extractive" colonial economies (seen as a drag on development). Yet, contradicting the *intuitionalists*, post-colonial change to a more "inclusive" economic terrain took place despite the prevalence of limited democratic checks.

Secondly, the findings do not support theories arguing that the early emergence of extreme inequality in non-settler colonies would be the sole key for explaining their regressive tax systems e.g., Sokoloff and Zolt (2007) or Cardenas (2010). The evidence shows that the materialisation of modern inequality differences, i.e., non-settler colonies being more unequal than settler ones, followed (not preceded) the *Great Divergence* of fiscal systems in the 20th century. Before this, the historical records indicate that Latin America, Africa or India, have had, in most cases, lower inequality than Western Europe and its Offshoots until circa the 1920s. For much of history, Western countries, no different than their colonies, had regressive states that required the poorest to fund public services serving the wealthiest -on top of widespread labour coercion. Only after the First Globalization (1870-1920), which led to soaring rental-wage ratios for primary exporters, did the Periphery reach world-high inequality levels.

The findings also indicate that regressive equilibriums persist via limited democratization. Both in colonial settings, as in *Old Regime* Europe, elites had collection and expenditure privileges. This regressive equilibrium, which bred record inequality worldwide (as historical records show), continued broadly unchecked via both Monarchies and Elite Democracies (excluding the poor). That is until full democracies emerged in the early 20th century. Full democracies, characterized by mass participation and executive checks, developed first and more fully in Western nations and led to the *Great Levelling* of the 20th century: the advent of a progressive fiscality. Whereas in the Periphery, due to limited democratization, a regressive equilibrium persists -thus explaining its excess inequality vis-à-vis the highly-redistributive Western countries.

This *"Great Divergence"* in fiscal and redistributive capacity has far-reaching consequences. While a robust inequality reduction via progressive taxes and transfers helps to shield societies from market-induced distributional tensions, as it does in most OECD countries, the combination of unchecked inequality with poorly installed democratic systems fuels social conflict and the demand for populism in the Periphery, especially in Latin America.[30] Even seemingly stable and prosperous countries are affected by this lack of redistributive power. This is illustrated by the inequality-fuelled massive demonstrations and riots in 2019 in Chile, which left the country at risk of experiencing a populist backlash.[31] In Chile, as in most of the Periphery, the prevalence of limited democratic checks has undermined forming of the fiscal contract needed to address distributional tensions (inherent to any market economy) via redistribution. As such, besides securing access to assets and opportunities, building fiscal and redistributive capacity is a policy imperative if the Periphery wants to reach lower inequality and social conflict levels.

[30] See for instance Sachs (1989).

[31] Among Western offshoots, it is also no coincidence that the US has the lowest redistribution, arguably the highest levels of social conflict, and saw the emergence of a populist "strongman" in 2016.

VII.2 Development implications.

Overall, the paper confirms the *institutionalist* emphasis on democracy for tackling inequality.[32]Yet, it challenges their causality chains. Inequality patterns follow divergent fiscal capacities during post-colonial times, rather than persisting colonial-era economic systems. By extension, given the crucial role played by inequality-generating institutions to explain "why nations fail" in ES and AJR theses, our findings call to revise their development narrative.[33] That is especially true for their emphasis on market over fiscal mechanisms. As Peer Vries (2013) notes, *institutionalist*s have mostly studied the state from the lens of how it facilitates market development via protecting private property, while its fiscal and redistributive role has been overlooked. That is despite taxes being among the oldest and most important institutions. Thus, by stressing market forces and private development, the literature overlooked the key role of fiscality (state capacity) and welfare (public development) in shaping contemporary inequality - and thus growth - dynamics.

These results then call put fiscality and its links with inequality as a key factor to consider. That is especially in light of a growing research line that has reinvigorated the study of fiscal patterns in development -but has not yet fully explored its redistributive role e.g., Besley and Persson (2011). Following the results, fiscal capacity would be not only associated with development but also with one that is less unequally shared (via effective redistribution). These factors seem self-reinforcing. In Africa, Herbst [2014] shows how states lacking fiscal capacity have to rely on inefficient and economically harmful ways of redistributing income (via clientelism, not social protection) and levying revenue (taxing trade rather than people), limiting growth.[34] Likewise, Edwards (2010) notes how Latin American populist "strongmen" try to address inequality via distortive policies requiring low fiscal capacity, like trade taxes, expropriations and red tape.

Adding this to our results can help to account for the limited-fiscal capacity, high-inequality, and low-growth equilibrium in the Periphery. The autocratic, unequal, and underdeveloped cluster identified by the *intuitionalists* seems tied together by these non-democratic regimes' bias for raising revenue via regressive and inefficient ways (via consumption and trade taxes) and redistributing via non-fiscal interventions affecting the productive stage. This means tackling inequality via, *inter alia*, fixing prices and wages, expropriations, and/or clientelist schemes, as in Latin America and Africa, rather than via less distortionary, more effective, and progressive post-production interventions. That is direct taxes and transfers as in the OECD. Exploring these links can help explain why the Periphery, where fiscal capacity languishes and distortionary policies thrive, fell behind both in inequality reduction and development over the 20th century.

[32] In the periphery, the lack of "*checks and balances*" is certainly behing the capture of fiscal systems by rapacious elites.
[33]Milanovic, Lindert and Williamson (2011) make a similar point: *"In light of the recent emphasis on the role of institutions, including inequality-generating institutions (Engerman and Sokoloff, 1997; Engerman et al., 2000; Acemoglu et al., 2001), the lack of past data on income distribution places severe limitations on our ability to understand the roots of economic growth".*
[34] See Robinson (2002) review of the book.

Appendices for online publication

Appendix A Data

Description of the data used.

The data on income inequality before and after taxes-and-transfers uses the OECD Income Distribution Database (OECD IDD) as the standard, being complemented by ECLAC calculations as reported in Hanni et al. (2015) for those Latin American countries not included in the OECD IDD, i.e. all except Chile, Brazil and Costa Rica. While Mexico is included in the OECD IDD, ECLAC data is preferred as the OECD data on market inequality for Mexico is for pre-transfers and post-taxes, whereas to be comparable market inequality must be before taxes and transfers as in Hanni et al. (2015) and the rest of OECD data. The only estimate that does not come from the OECD-ECLAC sample is Guatemala, which is based on Cabrera, Lustig and Morán (2015). This data is comparable to the OECD-ECLAC data as it follows the same method i.e., the same definition of market and disposable income. All the Gini coefficients account for inequality across the total population, including both the working-age population as well as the retired population in order to account for inequality across the whole of society.

The regional composition used in the Tables and Figures are: Iberia is Portugal and Spain. Eastern Europe incorporates Hungary, Latvia, Lithuania, Estonia, Poland, Romania and Russia (for which data is available in the OED IDD). Western Europe corresponds to France, Belgium, Ireland, Germany, Luxembourg, Netherlands, Italy, Spain, Portugal and the UK. Central America is Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and Mexico. The Andean States include Colombia, Bolivia, Peru and Ecuador. The Southern Cone is Chile, Uruguay, and Argentina. Latin America does not include the Caribbean for which comparable data on inequality is not available – the exception is the Dominican Republic which is included in the regional average. East Asia is Japan and Korea (for which data is available in the OECD IDD).

The state history Index from Borcan et al (2018) is an updated version of the state Antiquity Index originally created by Bockstette, Chanda and Putterman (2002). The index reflects whether across time (before 1500) the country had a supra-tribal government, the percentage of the territory of the (modern) country controlled by the state, and whether that government was local or foreign. In other words, state history is the accumulated "institutional capacity" of the country before 1500 discounted at a fixed rate. The data can be downloaded and revised here: https://sites.google.com/site/econolaols/extended-state-history-index

Indigenous population density by 1500 corresponds to the measure used in AJR (2002). This measure is preferred to Urbanization also used in AJR (2002) because as acknowledged by ARJ the extent and data quality on urbanization by 1500 is quite limited. Moreover, population density by 1500 has been identified by the literature as a key determinant as it also accounts not just for development but also for the extent of available native labour (Bruhn and Gallego, 2012). Besides, Urbanization by 1500 is partly captured by our "State History" measure which is probably better measured as state presence is easier to observe in historical records than urbanization rates by 1500. The data on State History and population density by 1500 also cover a wider range of countries – as there is more available data to compute them.

The geography and climate controls are absolute latitude (i.e. distance from the equator, scaled between 0 and 1), mean temperature and landlocked or coastal (0 or 1). The first 2 controls are used in AJR and Acemoglu et al. (2014). I add the landlocked dummy to account for the fact that colonization and migration patterns were different in coastal versus landlocked places. The studies on colonial taxation indicate that being landlocked (or not) affected taxation strategies, e.g. coastal colonies collected more taxes from trade tariffs (Frankema et al. 2014).

The data on Direct, Indirect and Total taxation used in the regressions corresponds to the average for the 21st century (for the 2000-2020 period) of each one of these measures based on the UNU WIDER Government Revenue Dataset (Version 2021). I use the average measure to reduce potential measurement error and increase data availability on fiscality – as the coverage varies between countries and years. UNU-WIDER covers from 1980 up to 2020, the 2000-2020 period is the one with the larger country coverage.

Appendix B Tables, regressions, and robustness checks

B1. Main Figures using the Standardized World Income Inequality Database (SWIDD) data

Consistent with the Figures and findings of the paper: when we use alternatively use the SWIDD data we also find that low settler mortality is strongly associated with higher fiscal redistribution (Figure B2), while the extent of inequality of the economic playing field (proxied by market disparities) is not greater in places with higher settler mortality -there is no apparent relation (Figure B1). The data corresponds to the average for the 2010-2018 period. We use the average to minimize measurement error. The country coverage for redistribution is lower.

Figure B1. Settler mortality and market inequality across former colonies (using SWIID data)

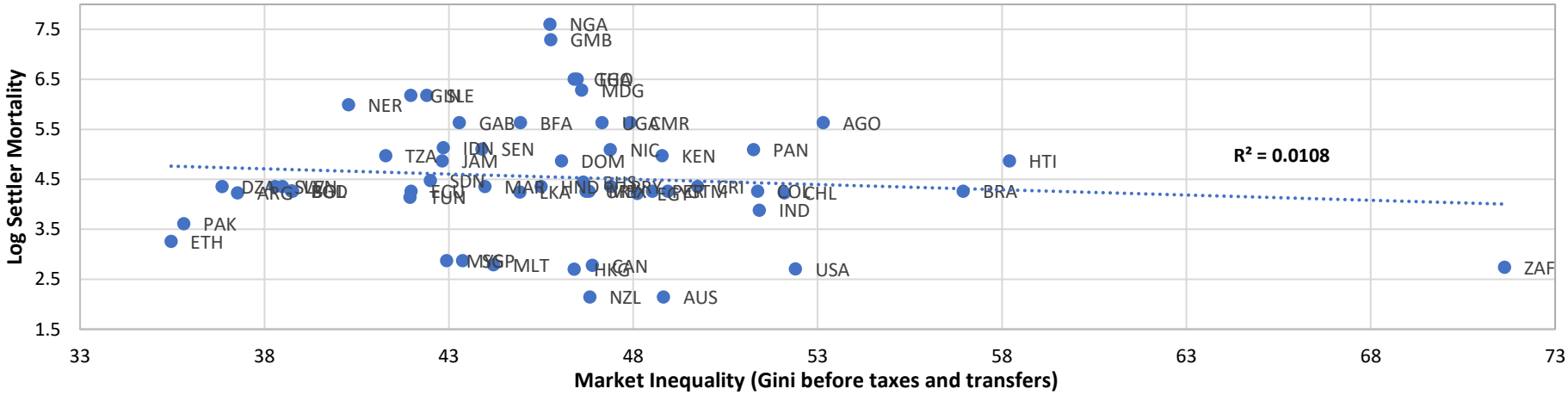
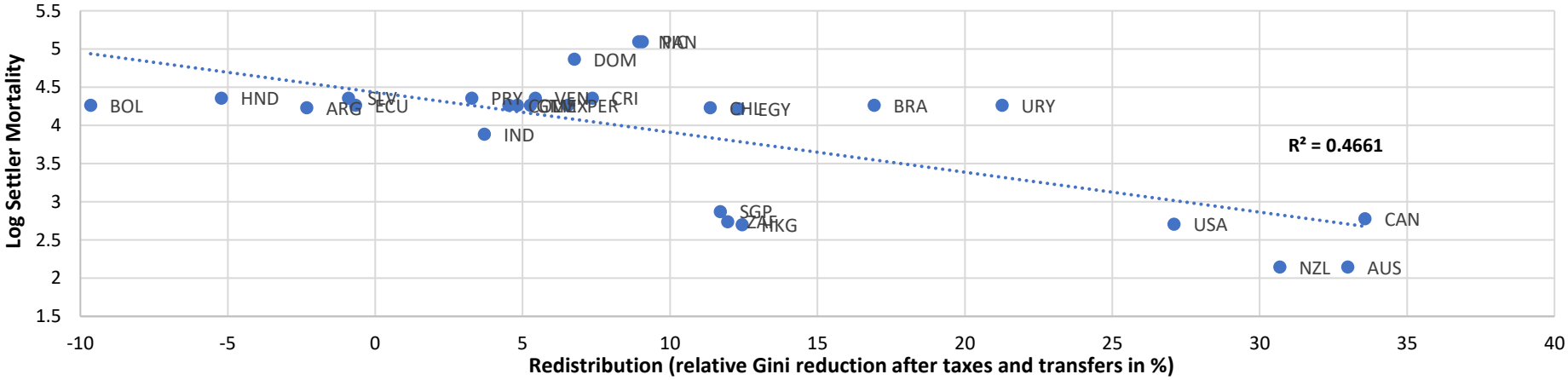


Figure B2. Settler mortality and redistribution across former colonies (using SWIID data)



B2. Main Figures using Milanovic et al (2011) Inequality Extraction Ratio.

Consistent with the findings of the paper: when we use alternatively use the Inequality Extraction Ratio (designed to compare inequality across countries with very different income levels), we find that settler mortality is only strongly associated with inequality after taxes and transfers (Figure B4), rather than with inequality before redistribution (Figure B3). The IER for market inequality is not significantly higher in places with higher settler mortality - the correlation being below 2%. The IER data is built using the average inequality and income per capita for the 2010-2018 period, using the minimum subsistence level of 300 USD dollars (2022 PPP). We use the World Bank data (WB 2022) for income.

Figure B3. Settler mortality and Inequality Extraction Ratios **before taxes-and-transfers** systems (using SWIID and WB data)

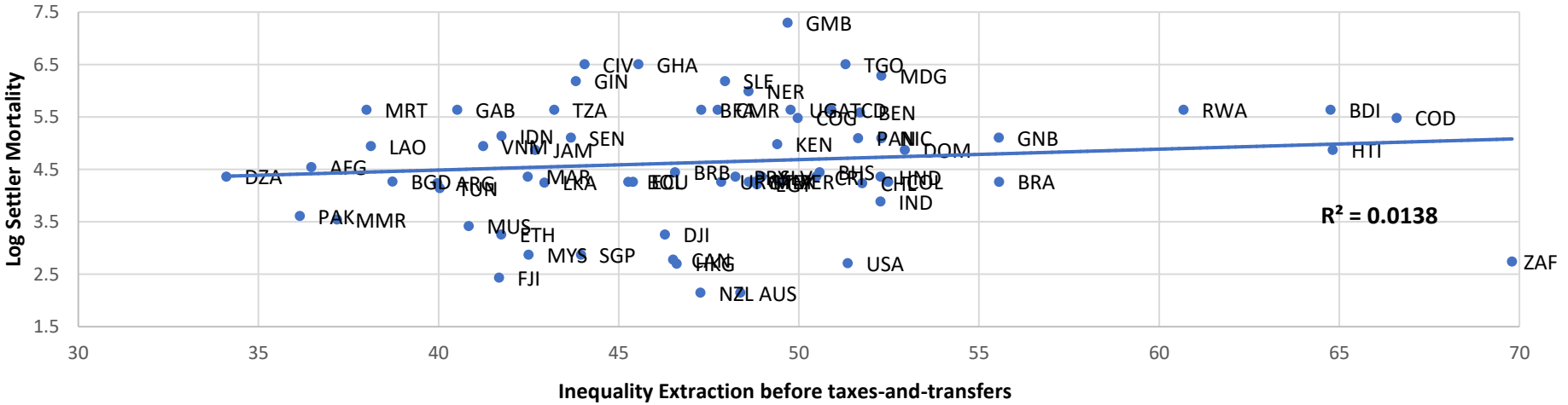
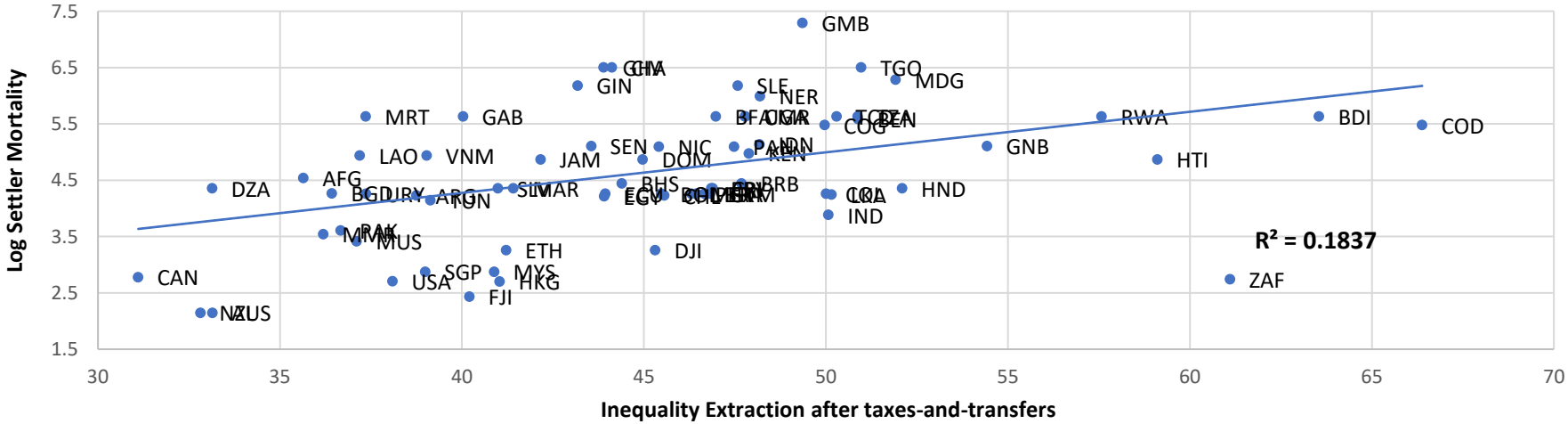


Figure B4. Settler mortality and Inequality Extraction Ratios **after taxes-and-transfers** systems (using SWIID and WB data)



B3. Robustness Checks

Results of the IV estimations using the settler mortality data from AJR (2001).

The results are roughly similar to the ones reported in the paper using Albouy (2012) revised mortality est. The significance and economic relevance levels remains the same when we use the original AJR data:

First Results: Democracy and Settler Mortality

Table AIa.	(1) Polity Dem (1900-2000)	(2) Polity Dem (1900-2000)	(3) Polity Dem (1900-2000)	(4) Polity Dem (1900-2000)	(6) Checks & Balances	(7) Checks & Balances	(8) Checks & Balances	(9) Checks & Balances
lcapped	-2.120***	-1.738**	-1.920**	-2.232***	-1.118***	-1.011***	-1.048***	-1.291***
	(0.421)	(0.538)	(0.537)	(0.448)	(0.168)	(0.235)	(0.221)	(0.236)
Geo. & Climate	no	yes	yes	yes	no	yes	yes	yes
Native State Hist. 1500			-3.981*	-6.279**			-1.398	-3.192*
			(1.575)	(2.144)			(0.971)	(1.351)
Pop Density 1500				0.349				0.276
				(0.310)				(0.183)
_cons	12.54***	10.84***	11.22***	12.72***	8.597***	8.386***	8.404***	9.575***
	(2.081)	(2.450)	(2.230)	(1.772)	(0.861)	(1.165)	(1.004)	(0.988)
N	61	61	60	60	61	61	60	60
R^2	0.403	0.434	0.507	0.519	0.620	0.403	0.434	0.507

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.00$

Main Results: Democracy, Redistribution and Taxation [Using AJR (2001) settler mortality data]

Table AIb	(1) Redistri.	(2) Regressive Bias	(3) Direct tax (%GDP)	(4) Market Gini	(5) Educa. Gini reduction	(6) Redistri.	(7) Regressive Bias	(8) Direct tax (%GDP)	(9) Market Gini	(10) Educa. Gini reduction
Demo	1.488***	7.228***	0.886***	0.00630	-0.00558					
Polity2	(0.303)	(1.662)	(0.202)	(0.0103)	(0.0194)					
Checks Polity2						2.450*** (0.631)	11.86*** (2.352)	1.440*** (0.326)	0.0104 (0.0161)	-0.00929 (0.0320)
Geo. & Climate	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Native State Hist.	3.588 (4.176)	11.15 (22.87)	-0.715 (1.860)	-0.0632 (0.113)	-0.335** (0.128)	6.648 (4.583)	2.987 (19.41)	-1.734 (1.647)	-0.0502 (0.0991)	-0.328* (0.133)
Pop Density 1500	-3.028*** (0.398)	-2.763 (2.593)	-0.174 (0.225)	0.0113 (0.0129)	0.0195 (0.0200)	-3.783*** (0.436)	-3.081 (1.967)	-0.219 (0.155)	0.00814 (0.0100)	0.0197 (0.0200)
cons	-0.906 (1.279)	-84.22*** (14.07)	-1.667 (1.516)	0.423*** (0.0483)	-0.743*** (0.132)	-4.479* (2.186)	-112.5*** (14.81)	-5.058** (1.571)	0.408*** (0.0641)	-0.725*** (0.165)
N	24	53	54	24	54	24	53	54	24	54
R^2	0.866	0.221	0.458	0.081	0.128	0.885	0.371	0.559	0.127	0.141

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Main IV estimations inference using Normal Errors and Wild Bootstrap:

Wild bootstrap is considered useful when conventional inference methods could be unreliable because large-sample assumptions may not hold (Roodman et al. 2020). For example, when there may be few clusters, few treated clusters, or weak instruments. In these cases, it is advised to further check significance levels using bootstrap-based tests, since they typically exhibit better finite-sample properties. In table AIII we report the Anderson-Rubin tests using this method, which is robust to potential weak instruments in the first stage, and should be interpreted as a joint test of the null hypothesis and of weak instruments. The results reported show that our main findings presented in Table IIa remain very significant (p-value <0,001), meaning that the significance levels of table IIa are not driven by potentially oversized asymptotic tests due to few clusters or small sample size. The exception are the regressions on redistribution, where due to very limited sample size (N=24), significance seems slightly oversized when not using wild bootstrap: p-value<0,001 versus p<0,01.

Table AII: Normal and Wild bootstrap errors:

[*Main results as presented in Table IIa using normal and wild bootstrap cluster-robust errors*]

Dependent	Redistribution (%Gini reduction)	Progressive Bias (% total taxes)	Direct Taxes (%GDP)	Redistribution (%Gini reduction)	Progressive Bias (% total taxes)	Direct Taxes (%GDP)
Independent Variable (Instrumentalized)	Polity Democracy	Polity Democracy	Polity Democracy	Checks & Balances	Checks & Balances	Checks & Balances
Controls	All	All	All	All	All	All
Countries [N]	24	53	54	24	53	54
Normal Errors:						
P-Value	0.000	0.000	0.000	0.000	0.000	0.000
Confidence Interval 95%	[0.9385, 2.0807]	[4.1463 10.5014]	[0.422,1.344]	[1.2106, 3.8048]	[7.411, 16.316]	[0.753, 2.081]
Wild bootstrap Errors:						
Anderson-Rubin test P-value	0.006	0.000	0.000	0.007	0.000	0.000
Confidence Interval 95%	[0.4466, 2.47]	[4.423, 11.53]	[0.4119, 1.554]	[0.5821, 5.685]	[6.835, 17.78]	[.7374, 2.098]

Note: *Bootstrap is Wild bootstrap-t, null imposed, 999 replications, Anderson-Rubin test results*

Exploring further the Exclusion restriction:

As the paper notes, settler mortality can be used as a driver for a plausibly exogenous variation in political institutions (AJR, 2001, 2002, 2005, Rodrik et al. 2004, Angrist and Pischke 2010, Acemoglu et al. 2014). Here, we will further explore this assumption specifically for assessing the effects of political institutions on fiscality, inequality and redistribution. That is beyond the controls already used in our baseline estimates. First, instead of analysing taxation during the 21st century, we will test if our results were already present by the end of the 20th century using IMF tax records. Then, in line with the legal origin's literature (e.g., La Porta et al. 1998), we will control for the identity of the main colonizers as they could have brought different institutional traditions. Last, we will check if our results hold when we take out Western Offshoots (i.e., Australia, Canada, US, and New Zealand), which can be arguably considered outliers among former colonies.

First, we will start by testing the results using alternative tax data. Rather than analysing taxation during the 2000s-2010s, we will explore the robustness of the results in terms of explaining the progressiveness of the tax structure at the very end of the 20th century. For this, we will base the analysis on the fiscal data used by Besley and Persson (2011). These authors used the tax structure data from Baunsgaard and Keen (2005), which provide a dataset with comparable estimates on income tax shares (of total taxes) for 53 former colonies (84% of AJR base sample). That is by building on IMF reports. Following Besley and Persson (2011), we use the data for 1999 as this is the year with the highest country coverage. The results of these checks are the following:

As Table A.III below shows, when we study the impact of a history of checks and balances during the 20th century on the progressiveness of the tax structure in 1999, we also obtain very significant and economically relevant results. A 1-point increase in checks and balances over the 20th century leads to 8.5 percentage points higher income taxation as a share of total taxes in 1999. These results are roughly equivalent to assessing fiscality in the 21st century with UNU Wider data – 8.5 pp (see Table IIa). This tells us that our results are robust to different datasets and periods. These results are also robust to controlling for colonizers' origin and for excluding western offshoots from the sample. As such, this confirms the findings and interpretations of this research. It shows that our main results (Table II) were largely present at the end of the 20th century, and thereby, proves that the *Great Divergence* in fiscality took place during the 20th century (Table A.III) and has persisted over the 21st century.

Secondly, the main results are also robust to excluding Western Offshoots. When we take out these potential outliers, the results of the baseline estimations remain roughly unchanged -see Table A.III. The effects of a history of democratic checks in the 20th century on the progressiveness of the tax structure and the extent of direct taxes remain economically large and statistically significant – but a bit less than before. This should not be surprising given that the whole point of the *intuitionalist* literature is studying the divergence between Western Offshoots and the Periphery (e.g., North versus South America), so when we leave out Western Offshoots, we *de facto* kill the largest and most interesting part of the variation that such studies seek to understand. In any case, the results are robust to this test, and thus, not driven by Western Offshoots.

Thirdly, in line with the literature, the tests show that the colonizer's identity does matters. Table A.III (see below), indicates that for any given level of democracy, former French colonies seem to have a greater capacity to extract direct taxes relative to GDP –see column (6). However, a progressive fiscality overall is not related to any colonizer´s origin (column 3). Simultaneously, consistent with North, Summerhill and Weingast (2000), British "traditions" appear to have positively contributed to checks and balances (Table AIIb).[35] In turn, this led to a greater capacity to collect direct taxes via stronger democratic checks (Table A.II). Thus, both British and French origins appear to be associated with greater direct taxation.

Yet, colonizers' origins do not explain much of the outcomes. Variations in endowments (not colonizers' identities) explain the larger part of the variation in checks and balances, and thus, in fiscal and redistributive capacity today. The R2 of the first-stage results is larger when not including colonizers' identities: 59.5% (Table Ib, column 4) versus 56% (Table AIIIb, column 4).

[35] Following the literature, this seem to be related to the influence of the Glorious Revolution.

Even when controlling for it, its final impact is rather small, being trumped by democratic checks overall (shifted by settler mortality). The indirect effect of British origins (via democratic checks) corresponds to 2 percentage points of direct taxation relative to GDP,[36] which is equivalent to just a 1-point increase in checks and balances (Column 6). Likewise, the effects of French origins are less than a 2-point change in checks and balances. Thus, different colonizers' identities (i.e., their legal, cultural, or institutional traditions) cannot explain the large variation in fiscality observed across countries and regions. Latin America and Western Offshoots have a 9 points gap in direct taxes (2% and 11% of GDP respectively), which can hardly be explained by different colonizers. Identities seem to have played at best an indirect and secondary role.

In line with the latter, the research on colonial taxation shows that the formation and extent of fiscal capacity in colonial settings reflects pragmatic responses to varying local conditions (especially development before colonization and sea exposure which we account for in this paper), rather than colonizers' identities (Frankema & Van Waijenburg 2014). Consistent with this, besides Western Offshoots, most British colonies, such as across the "West Indies" or "British Africa", are no different from Latin America in terms of fiscality. British colonies that had a high settler mortality rate and/or high native development by 1500 also have a limited fiscal and redistributive capacity today. Redistribution stands at 2.5% in India (OECD IDDD) and 6% in Egypt, no different than in former Spanish colonies (Caminada et al. 2017). The same applies to other British and French colonies in Africa, which also have a very limited fiscal and redistributive capacity, and thereby, high inequality as in Latin America (e.g., see Odusala, 2017).

On top of this, controlling for colonizers´ origins is quite problematic. Besides the fact that new studies show that neither British nor French origins *per se* explain fiscal capacity differences, we know that those colonial empires obtained their colonies according to their power. In other words, the "colonizers' origins" dummy is contaminated by the fact that colonial territories were not exogenously attributed but responded to imperial interests and power relations. For instance, the British military hegemony since the early 19th century allowed them to pick and choose their colonies, most famously in Africa, opting for the ones with the highest economic potential.[37] Thus, controlling for colonial identities is problematic. It stands as a clear source of bias in the IV model. That is due to institutional differences being mistakenly attributed to colonizers' identities, e.g., see Frankema and Van Waijenburg (2014). Colonizers chose their colonies according to their power and local patterns, e.g., the British went for richer and coastal territories where developing fiscal capacity was easier. Thus, in such cases, the financial profitability of the colonized territory was a pre-condition, not necessarily a result of British colonization. This leads to revere-causality bias. As such, given that colonizer's identity is not exogenous, we did not control for it in the estimations presented in this paper´s main text to avoid contaminating the findings.

In sum, the evidence indicates that redistribution and fiscal capacity differences are not explained by colonizers' identity but by different democratization processes resulting from varying local conditions during colonization, i.e., geography, settler mortality, indigenous development etc. Colonizers' identities may have played a role, but it was at best a secondary and indirect one. Yet, given that colonizers' identity was not exogenously attributed, considering and interpreting its effects is problematic and a source of bias. In any case, when we do control for it (see Table AIIIa), the point estimates are consistently larger, telling us that if there is any potential bias when excluding this control, it seems to attenuate (not overestimate) our main findings. To conclude, these robustness tests have shown that diverse democratization patterns (shifted by endowments) consistently stand as the main factor explaining the *Great Divergence* in fiscality and redistribution that took place over the 20th century. Then, following the historical and empirical study developed in this paper, these divergent fiscal equilibriums (resulting from diverse democratization patterns) explain cross-country differences in inequality today.

[36] That is 1.122*1.796, 1.122 is the effects of having British origins in checks and balances during the 20th century (see Table III column 2) and 1.796 is the effects of a one-unit change of the extent of checks and balances during the 20th century (see Table III column 6).

[37] See for instance Frankema and Van Waijenburg (2014).

Table AIII. Robustness Checks

Table AIIIa Second Stage Results	Second Stage **Baseline Estimation**	Second Stage **with colonizers 'origin**	Second Stage **excluding Western Offshoots**	Second Stage **with colonizers 'origin**	Second Stage **excluding Western Offshoots**	Second Stage **with colonizers 'origin**	Second Stage **excluding Western Offshoots**
	(1) Income Tax 1999 (% total taxes)	(2) Income Tax 1999 (% total taxes)	(3) Income Tax 1999 (% total taxes)	(4) Progressive Bias 21st century (% total taxes)	(5) Progressive Bias 21st century (% total taxes)	(6) Direct taxes 21st century (%GDP)	(7) Direct taxes 21st century (%GDP)
Checks & Balances 1900-2000	8.483*** (0.000)	10.85*** (0.001)	7.393*** (0.000)	11.41* (0.011)	9.409** (0.002)	1.796** (0.001)	0.934** (0.003)
Geography & Climate	yes	yes	yes	yes	yes	yes	yes
Native Population Density by 1500	-2.382 (0.110)	-2.547 (0.092)	-1.281 (0.308)	-4.217** (0.009)	-1.569 (0.373)	-0.344 (0.867)	-1.396 (0.231)
Native State History	11.92 (0.449)	17.97 (0.287)	13.14 (0.388)	8.925 (0.630)	3.245 (0.850)	-0.357 (0.108)	-0.0737 (0.520)
British Origin		-1.381 (0.840)		10.42 (0.291)		0.432 (0.691)	
French Origin		10.54 (0.154)		14.59 (0.097)		2.788** (0.002)	
_cons	-9.849 (0.253)	-13.30 (0.336)	-6.145 (0.529)	-99.96*** (0.000)	-99.36*** (0.000)	-4.342 (0.089)	-3.059 (0.096)
Countries [N]	53	53	49	53	49	53	49
R^2	0.239	0.097	.	0.427	.	0.530	0.074

***p*-values in parentheses**. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.00$

Note: In the table, we do not include the regression on redistribution with 24 countries. For that sample, adding a British or French Origin dummy would be a problem, namely because: The sample has a very specific subset of British Colonies (4 out of 6 correspond to the so-called Western-Offshoots: i.e. AUS, NZL, CAN, and the US) and all the non-British colonies are Spanish former-colonies. All the British colonies in the sample except India and South Africa ended up being the most highly redistributive former colonies. Why? Not because of "British origin" *per se* but because they had the lowest settler mortality rates and pre-colonial native development. Consequently, they had many European settlers during colonization and thereby greater political equality which eventually led to greater democratization. So, if we include the British dummy in the 24-country sample we will have less explanatory power and, most importantly, the results will be biased. British Origin will capture the clustering effect just described and not the impact of British colonization *per se*. To overcome this, we test the IV regression on redistribution using proxies, that is a Direct tax as share of GDP and the Direct-Indirect-taxes-bias, for which there is data for a larger amount of former British and French colonies –across Africa, Asia, and the Caribbean.

Table AIIIb. First Stage Results	**First Stage** (No controls)	**First Stage** with colonizers 'origin	**First Stage** with colonizers 'origin +Native controls	**First Stage** with colonizers 'origin +Geo & Climate	**First Stage** with colonizers 'origin +All controls	**First Stage** Excluding Western Offshoots +All controls
	(1) Checks_Polity (1900-2000)	(2) Checks_Polity (1900-2000)	(3) Checks_Polity (1900-2000)	(3) Checks_Polity (1900-2000)	(4) Checks_Polity (1900-2000)	(5) Checks_Polity (1900-2000)
Settler Mortality Revised	-1.160*** (0.000)	-0.794*** (0.000)	-0.940*** (0.000)	-0.574* (0.021)	-0.743** (0.002)	-1.220*** (0.001)
British Origin		1.077** (0.006)	1.120** (0.003)	1.153** (0.003)	1.122** (0.003)	
French Origin		-0.691* (0.024)	-0.512* (0.024)	-0.696* (0.044)	-0.589 (0.058)	
Geography & Climate	no	no	no	yes	yes	yes
Native Population Density by 1500			0.0388 (0.827)		0.0649 (0.731)	0.332 (0.119)
Native State History			-2.004 (0.132)		-2.099 (0.150)	-2.948 (0.075)
_cons	8.813*** (0.000)	6.942*** (0.000)	7.776*** (0.000)	6.333*** (0.000)	6.970*** (0.000)	9.234*** (0.000)
Countries [N]	61	61	60	61	60	56
R2	0.393	0.534	0.558	0.534	0.560	0.217

***p*-values in parentheses**

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.0$

B4. Test results for main regressions

Test results for main regressions in Table IIa using ivreg2 command in stata.

```
IV (2SLS) estimation
--------------------

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity and clustering on LogMorcapped

Number of clusters (LogMorcapped) =     29          Number of obs =       54
                                                    F(  6,    28) =    13.64
                                                    Prob > F      =   0.0000
Total (centered) SS     =  478.2425057              Centered R2   =   0.5656
Total (uncentered) SS   =  797.7635776              Uncentered R2 =   0.7396
Residual SS             =   207.767528              Root MSE      =    1.962

------------------------------------------------------------------------------
                             |               Robust
Individual_to~p              |  Coefficient  std. err.      z    P>|z|     [95% conf. interval]
-----------------------------+------------------------------------------------------------------
        Checks_Polity        |   1.416789   .3023606     4.69   0.000     .8241729    2.009404
                  Lat        |    7.62305   2.723867     2.80   0.005     2.284369    12.96173
                temp1        |   .049523    .0430844     1.15   0.250    -.0349208    .1339669
             landlock        |   .1541934   .4435382     0.35   0.728    -.7151254    1.023512
       State_hist_1500       |  -1.720883   1.762626    -0.98   0.329    -5.175566    1.733801
              lpd1500s       |  -.2240955   .1964603    -1.14   0.254    -.6091505    .1609595
                   _cons     |  -4.961854   1.606721    -3.09   0.002    -8.110969   -1.812739
------------------------------------------------------------------------------

Underidentification test (Kleibergen-Paap rk LM statistic):              11.338
                                                    Chi-sq(1) P-val =    0.0008
------------------------------------------------------------------------------
Weak identification test (Cragg-Donald Wald F statistic):                20.935
                         (Kleibergen-Paap rk Wald F statistic):          29.963
Stock-Yogo weak ID test critical values: 10% maximal IV size             16.38
                                         15% maximal IV size              8.96
                                         20% maximal IV size              6.66
                                         25% maximal IV size              5.53
Source: Stock-Yogo (2005).  Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.
------------------------------------------------------------------------------
Hansen J statistic (overidentification test of all instruments):         0.000
                                                    (equation exactly identified)
------------------------------------------------------------------------------
Instrumented:         Checks_Polity
Included instruments: Lat temp1 landlock State_hist_1500 lpd1500s
Excluded instruments: LogMorcapped
------------------------------------------------------------------------------
```

```
IV (2SLS) estimation
--------------------

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity and clustering on LogMorcapped

Number of clusters (LogMorcapped) =     29          Number of obs =       54
                                                    F(  6,    28) =    10.22
                                                    Prob > F      =   0.0000
Total (centered) SS     =  478.2425057              Centered R2   =   0.4599
Total (uncentered) SS   =  797.7635776              Uncentered R2 =   0.6762
Residual SS             =  258.2813676              Root MSE      =    2.187

------------------------------------------------------------------------------
                             |               Robust
Individual_to~p              |  Coefficient  std. err.      z    P>|z|     [95% conf. interval]
-----------------------------+------------------------------------------------------------------
        Polity_demi          |   .8828882   .2150683     4.11   0.000     .4613621    1.304414
                  Lat        |   4.642588    3.50395     1.32   0.185    -2.225027    11.5102
                temp1        |   .0283407   .0537956     0.53   0.598    -.0770968    .1337781
             landlock        |    .087902   .5586409     0.16   0.875    -1.007014    1.182818
       State_hist_1500       |  -.7161476   2.019516    -0.35   0.723    -4.674327    3.242032
              lpd1500s       |  -.1757086   .2510358    -0.70   0.484    -.6677296    .3163124
                   _cons     |  -1.657181   1.715804    -0.97   0.334    -5.020095    1.705733
------------------------------------------------------------------------------

Underidentification test (Kleibergen-Paap rk LM statistic):              10.849
                                                    Chi-sq(1) P-val =    0.0010
------------------------------------------------------------------------------
Weak identification test (Cragg-Donald Wald F statistic):                16.779
                         (Kleibergen-Paap rk Wald F statistic):          22.226
Stock-Yogo weak ID test critical values: 10% maximal IV size             16.38
                                         15% maximal IV size              8.96
                                         20% maximal IV size              6.66
                                         25% maximal IV size              5.53
Source: Stock-Yogo (2005).  Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.
------------------------------------------------------------------------------
Hansen J statistic (overidentification test of all instruments):         0.000
                                                    (equation exactly identified)
------------------------------------------------------------------------------
Instrumented:         Polity_demi
Included instruments: Lat temp1 landlock State_hist_1500 lpd1500s
Excluded instruments: LogMorcapped
------------------------------------------------------------------------------
```

```
IV (2SLS) estimation
--------------------

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity and clustering on LogMorcapped

Number of clusters (LogMorcapped) =     29          Number of obs =       53
                                                    F(  6,    28) =    10.84
                                                    Prob > F      =   0.0000
Total (centered) SS     =  30374.57778              Centered R2   =   0.3714
Total (uncentered) SS   =  153940.1432              Uncentered R2 =   0.8760
Residual SS             =  19092.28694              Root MSE      =    18.98

------------------------------------------------------------------------------
                             |               Robust
Direct_bias1                 |  Coefficient  std. err.      z    P>|z|     [95% conf. interval]
-----------------------------+------------------------------------------------------------------
        Checks_Polity        |   11.86387   2.271747     5.22   0.000     7.411326    16.31641
                  Lat        |   25.13964   24.45483     1.03   0.304    -22.79095    73.07024
                temp1        |   .7703261   .4749723     1.62   0.105    -.1606024    1.701255
             landlock        |  -3.839723   4.575574    -0.84   0.401    -12.80768    5.128237
       State_hist_1500       |   2.985842   18.73406     0.16   0.873    -33.73224    39.70393
              lpd1500s       |  -3.080993   1.883448    -1.64   0.102    -6.772484    .6104979
                   _cons     |  -112.5345   15.31034    -7.35   0.000    -142.5422   -82.52681
------------------------------------------------------------------------------

Underidentification test (Kleibergen-Paap rk LM statistic):              11.258
                                                    Chi-sq(1) P-val =    0.0008
------------------------------------------------------------------------------
Weak identification test (Cragg-Donald Wald F statistic):                19.771
                         (Kleibergen-Paap rk Wald F statistic):          27.469
Stock-Yogo weak ID test critical values: 10% maximal IV size             16.38
                                         15% maximal IV size              8.96
                                         20% maximal IV size              6.66
                                         25% maximal IV size              5.53
Source: Stock-Yogo (2005).  Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.
------------------------------------------------------------------------------
Hansen J statistic (overidentification test of all instruments):         0.000
                                                    (equation exactly identified)
------------------------------------------------------------------------------
Instrumented:         Checks_Polity
Included instruments: Lat temp1 landlock State_hist_1500 lpd1500s
Excluded instruments: LogMorcapped
------------------------------------------------------------------------------
```

```
IV (2SLS) estimation
--------------------

Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity and clustering on LogMorcapped

Number of clusters (LogMorcapped) =     29          Number of obs =       53
                                                    F(  6,    28) =     7.63
                                                    Prob > F      =   0.0001
Total (centered) SS     =  30374.57778              Centered R2   =   0.2120
Total (uncentered) SS   =  153940.1432              Uncentered R2 =   0.8445
Residual SS             =  23935.78908              Root MSE      =    21.25

------------------------------------------------------------------------------
                             |               Robust
Direct_bias1                 |  Coefficient  std. err.      z    P>|z|     [95% conf. interval]
-----------------------------+------------------------------------------------------------------
        Polity_demi          |   7.323913    1.62121     4.52   0.000     4.146399    10.50143
                  Lat        |  -.2768772   32.40353    -0.01   0.993    -63.78662    63.23287
                temp1        |   .5993468   .5336089     1.12   0.261    -.4465073    1.645201
             landlock        |  -4.674509   5.345195    -0.87   0.382     -15.1509    5.80188
       State_hist_1500       |   11.17604   22.36327     0.50   0.617    -32.65517    55.00724
              lpd1500s       |   -2.72422   2.516149    -1.08   0.279    -7.655781    2.207341
                   _cons     |  -84.50296   15.57516    -5.43   0.000    -115.0297   -53.97621
------------------------------------------------------------------------------

Underidentification test (Kleibergen-Paap rk LM statistic):              10.850
                                                    Chi-sq(1) P-val =    0.0010
------------------------------------------------------------------------------
Weak identification test (Cragg-Donald Wald F statistic):                15.963
                         (Kleibergen-Paap rk Wald F statistic):          21.576
Stock-Yogo weak ID test critical values: 10% maximal IV size             16.38
                                         15% maximal IV size              8.96
                                         20% maximal IV size              6.66
                                         25% maximal IV size              5.53
Source: Stock-Yogo (2005).  Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.
------------------------------------------------------------------------------
Hansen J statistic (overidentification test of all instruments):         0.000
                                                    (equation exactly identified)
------------------------------------------------------------------------------
Instrumented:         Polity_demi
Included instruments: Lat temp1 landlock State_hist_1500 lpd1500s
Excluded instruments: LogMorcapped
------------------------------------------------------------------------------
```

```
Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity and clustering on LogMorcapped

Number of clusters (LogMorcapped) =     12          Number of obs =       24
                                                    F(  6,    11) =   185.27
                                                    Prob > F      =   0.0000
Total (centered) SS     =  .1870677649              Centered R2   =   0.8644
Total (uncentered) SS   =  .4051788731              Uncentered R2 =   0.9374
Residual SS             =  .0253626256              Root MSE      =   .03251

------------------------------------------------------------------------------
             |               Robust
      Redri  | Coefficient  std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
Polity_demi  |   .0150968   .0029138     5.18   0.000     .0093858    .0208078
         Lat |   .0563853    .036301     1.55   0.120    -.0147633    .1275339
       temp1 |   .0004883   .0008046     0.61   0.544    -.0010887    .0020652
    landlock |  -.0470986   .0088349    -5.33   0.000    -.0644148   -.0297825
State_hist_~0|   .0352764   .0433836     0.81   0.416     -.049754    .1203067
     lpd1500s|   -.030159   .0047352    -6.37   0.000    -.0394399   -.0208782
       _cons |  -.0095667    .013082    -0.73   0.465     -.035207    .0160736
------------------------------------------------------------------------------

Underidentification test (Kleibergen-Paap rk LM statistic):             8.304
                                                   Chi-sq(1) P-val =    0.0040
------------------------------------------------------------------------------
Weak identification test (Cragg-Donald Wald F statistic):              23.239
                         (Kleibergen-Paap rk Wald F statistic):        43.479
Stock-Yogo weak ID test critical values: 10% maximal IV size            16.38
                                         15% maximal IV size             8.96
                                         20% maximal IV size             6.66
                                         25% maximal IV size             5.53
Source: Stock-Yogo (2005).  Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.
------------------------------------------------------------------------------
Hansen J statistic (overidentification test of all instruments):        0.000
                                                   (equation exactly identified)
------------------------------------------------------------------------------
```

```
Estimates efficient for homoskedasticity only
Statistics robust to heteroskedasticity and clustering on LogMorcapped

Number of clusters (LogMorcapped) =     12          Number of obs =       24
                                                    F(  6,    11) =   282.36
                                                    Prob > F      =   0.0000
Total (centered) SS     =  .1870677649              Centered R2   =   0.8837
Total (uncentered) SS   =  .4051788731              Uncentered R2 =   0.9463
Residual SS             =  .0217564321              Root MSE      =   .03011

------------------------------------------------------------------------------
             |               Robust
      Redri  | Coefficient  std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
Checks_Polity|   .0250778   .0066179     3.79   0.000      .012107    .0380485
         Lat |   .0272336   .0437308     0.62   0.533    -.0584772    .1129445
       temp1 |   .0004323    .000655     0.66   0.509    -.0008514     .001716
    landlock |  -.0455955   .0111431    -4.09   0.000    -.0674355   -.0237554
State_hist_~0|   .0662281   .0474167     1.40   0.162    -.0267068    .1591631
     lpd1500s|  -.0378222   .0049449    -7.65   0.000    -.0475141   -.0281303
       _cons |  -.0464482   .0223888    -2.07   0.038    -.0903294   -.0025669
------------------------------------------------------------------------------

Underidentification test (Kleibergen-Paap rk LM statistic):             8.474
                                                   Chi-sq(1) P-val =    0.0036
------------------------------------------------------------------------------
Weak identification test (Cragg-Donald Wald F statistic):              26.258
                         (Kleibergen-Paap rk Wald F statistic):        36.781
Stock-Yogo weak ID test critical values: 10% maximal IV size            16.38
                                         15% maximal IV size             8.96
                                         20% maximal IV size             6.66
                                         25% maximal IV size             5.53
Source: Stock-Yogo (2005).  Reproduced by permission.
NB: Critical values are for Cragg-Donald F statistic and i.i.d. errors.
------------------------------------------------------------------------------
Hansen J statistic (overidentification test of all instruments):        0.000
                                                   (equation exactly identified)
------------------------------------------------------------------------------
```

References

Abad, Leticia Arroyo. 'Persistent Inequality? Trade, Factor Endowments, and Inequality in Republican Latin America'. *The Journal of Economic History*, 2013, 38–78.

Abad, Leticia Arroyo, and Peter H. Lindert. 'Fiscal Redistribution in Latin America since the Nineteenth Century'. *Bértola L, Williamson J, Organizadores. Has Latin American Inequality Changed Direction*, 2017, 243–282.

Abad, Leticia Arroyo, and Jan Luiten van Zanden. 'Growth under Extractive Institutions? Latin American Per Capita GDP in Colonial Times'. *The Journal of Economic History* 76, no. 4 (December 2016): 1182–1215.

Acemoglu, Daron. 'Politics and Economics in Weak and Strong States'. *Journal of Monetary Economics*, Political economy and macroeconomics, 52, no. 7 (1 October 2005): 1199–1226.

Acemoglu, Daron, Davide Cantoni, Simon Johnson, and James A. Robinson. 'The Consequences of Radical Reform: The French Revolution'. *American Economic Review* 101, no. 7 (2011): 3286–3307.

Acemoglu, Daron, Francisco A. Gallego, and James A. Robinson. "Institutions, human capital, and development." Annu. Rev. Econ. 6.1 (2014): 875-912.

Acemoglu, Daron, Simon Johnson, and James Robinson. 'The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth'. *American Economic Review* 95, no. 3 (2005): 546–579.

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 'Chapter 6 Institutions as a Fundamental Cause of Long-Run Growth'. In *Handbook of Economic Growth*, edited by Philippe Aghion and Steven N. Durlauf, 1:385–472. Elsevier, 2005.

———. 'Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution'. *The Quarterly Journal of Economics* 117, no. 4 (1 November 2002): 1231–94.

Acemoglu, Daron, Simon Johnson, and James A. Robinson. 'The Colonial Origins of Comparative Development: An Empirical Investigation'. *American Economic Review* 91, no. 5 (2001): 1369–1401.

Acemoglu, Daron, Suresh Naidu, Pascual Restrepo, and James A. Robinson. 'Chapter 21 - Democracy, Redistribution, and Inequality'. In *Handbook of Income Distribution*, edited by Anthony B. Atkinson and François Bourguignon, 2:1885–1966. Handbook of Income Distribution. Elsevier, 2015.

Acemoglu, Daron, and James A. Robinson. *Why Nations Fail: The Origins of Power, Prosperity and Poverty*. London, United Kingdom: Profile Books, 2012.

Aidt, Toke S., and Peter S. Jensen. 'The Taxman Tools up: An Event History Study of the

Introduction of the Personal Income Tax'. *Journal of Public Economics* 93, no. 1 (1 February 2009): 160–75.
Albouy, David Y. 'The Colonial Origins of Comparative Development: An Empirical Investigation: Comment'. *American Economic Review* 102, no. 6 (1 October 2012): 3059–76.
Alfani, G. (2021). Economic inequality in preindustrial times: Europe and beyond. Journal of Economic Literature, 59(1), 3-44.
Andersson, Per F., y Thomas Brambor. «Financing the State: Government Tax Revenue from 1800 to 2012». Lund University, 2020.
Angrist, J. D., & Pischke, J. S. (2010). The credibility revolution in empirical economics: How better research design is taking the con out of econometrics. *Journal of economic perspectives*, 24(2), 3-30.
Arroyo Abad, Leticia, Elwyn Davies, and Jan Luiten van Zanden. 'Between Conquest and Independence: Real Wages and Demographic Change in Spanish America, 1530–1820'. *Explorations in Economic History* 49, no. 2 (1 April 2012): 149–66.
Arroyo Abad, Leticia, and Noel Maurer. 'The Long Shadow of History? The Impact of Colonial Labor Institutions on Economic Development in Peru'. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, 3 August 2019.
Astorga, Pablo, Ame R. Bergés, and Valpy FitzGerald. 'The Standard of Living in Latin America during the Twentieth Century 1'. *The Economic History Review* 58, no. 4 (2005): 765–796.
Atkinson, Anthony B., and François Bourguignon. *Handbook of Income Distribution*. Vol. 2. Elsevier, 2015..
Austin, Gareth. 'The "Reversal of Fortune" Thesis and the Compression of History: Perspectives from African and Comparative Economic History'. *Journal of International Development* 20, no. 8 (2008): 996–1027.
Balestra, Carlotta, and Richard Tonkin. 'Inequalities in Household Wealth across OECD Countries', 21 June 2018, OECD Statistics Working Papers. Vol. 2018/01. OECD Statistics Working Papers, 21 June 2018.
Banerjee, Abhijit, and Rohini Somanathan. "The political economy of public goods: Some evidence from India." *Journal of development Economics* 82.2 (2007): 287-314.
Banerjee, Abhijit, and Lakshmi Iyer. 'History, Institutions, and Economic Performance: The Legacy of Colonial Land Tenure Systems in India'. *American Economic Review* 95, no. 4 (2005): 1190–1213.
Banerjee, Abhijit V., and Esther Duflo. 'Under the Thumb of History? Political Institutions and the Scope for Action'. *Annu. Rev. Econ.* 6, no. 1 (2014): 951–971.
Bauer, A. "La Hispanoamérica Rural, 1870-1930" in Bethell, L. (ed.) Historia de América Latina 7. Economía y sociedad, c. 1870-1930, Cambridge University Press, pp. 133-162. 1991
Baunsgaard, T., & Keen, M. (2010). Tax revenue and (or?) trade liberalization. Journal of Public Economics, 94(9-10), 563-577.
Baten, J., Pelger, I., & Twrdek, L. (2009). The anthropometric history of Argentina, Brazil and Peru during the 19th and early 20th century. Economics & Human Biology, 7(3), 319-333.
Bértola, Luis, Cecilia Castelnovo, Javier Rodríguez, and Henry Willebald. 'Between the Colonial Heritage and the First Globalization Boom: On Income Inequality in the Southern Cone'. *Revista de Historia Económica* 28, no. 2 (2010): 307.
Bértola, L., & Ocampo, J. A. (2012). The economic development of Latin America since independence. OUP Oxford.
Bértola, Luis, and Jeffrey Williamson. "Introduction" in *Has Latin American Inequality Changed Direction?* Springer International Publishing, 2017.
Besley, Timothy, and Torsten Persson. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton, UNITED STATES: Princeton University Press, 2011.
——— "Public finance and development." Draft Chapter for *the Handbook of Public Economics*. 2012.
Besley, Timothy (2020). State capacity, reciprocity, and the social contract. Econometrica, 88(4), 1307-1335.

Bielschowsky, R. Sixty years of ECLAC: structuralism and neo-structuralism. *Cepal Review*. 2008.
Hillbom, E., Bolt, J., De Haas, M., & Tadei, F. (2021). Measuring historical income inequality in Africa: What can we learn from social tables?.
Bulmer-Thomas, V. Inward-Looking Development in the Postwar Period. In The Economic History of Latin America since Independence. Cambridge University Press. 2014
Bruhn, Miriam, and Francisco A. Gallego. 'Good, Bad, and Ugly Colonial Activities: Do They Matter for Economic Development?' *The Review of Economics and Statistics* 94, no. 2 (2011):433–61.
Burnard, Trevor, Laura Panza, and Jeffrey Williamson. 'Living Costs, Real Incomes and Inequality in Colonial Jamaica'. *Explorations in Economic History* 71 (2019): 55–71.
Cabrera, Maynor, Nora Lustig, and Hilcías E. Morán. 'Fiscal Policy, Inequality, and the Ethnic Divide in Guatemala'. *World Development* 76 (December 2015): 263–79.
Caminada, Koen, Jinxian Wang, Kees Goudswaard, and Chen Wang. 'Income Inequality and Fiscal Redistribution in 47 LIS-Countries, 1967-2014'. *LIS Working Papers*. LIS Working Papers. LIS Cross-National Data Center in Luxembourg, November 2017.
Cárdenas, Mauricio. 'State Capacity in Latin America'. *Economía* 10, no. 2 (2010): 1–45.
Causa, Orsetta, and Mikkel Nørlem Hermansen. 'Income Redistribution through Taxes and Transfers across OECD Countries'. Working Paper. LIS Working Paper Series, 2018.
CEPAL (UN ECLAC), NU. *The Inefficiency of Inequality*. ECLAC, 2018.
Coatsworth, John H. "Structures, endowments, and institutions in the economic history of Latin America." *Latin American Research Review* 40.3 (2005): 126-144.
Collier, Simon, William F. Sater, and F. William III. *A History of Chile, 1808-2002*. Vol. 82. Cambridge University Press, 2004.
Cruces, Guillermo, C. García Domench, and Leonardo Gasparini. "Inequality in education: evidence for Latin America." Falling inequality in Latin America. Policy changes and lessons (2014): 318-339.
De Ferranti, David, Guillermo E. Perry, Francisco Ferreira, and Michael Walton. *Inequality in Latin America: Breaking with History?* The World Bank, 2004.
Dell, Melissa. 'The Persistent Effects of Peru's Mining Mita'. *Econometrica* 78, no. 6 (2010): 1863–1903.
Dincecco, Mark. 'The Rise of Effective States in Europe'. *The Journal of Economic History* 75, no. 3 (2015): 901–918.
Dornbusch, Rudiger, and Sebastian Edwards. *The Macroeconomics of Populism in Latin America*. University of Chicago Press, 2007.
Easterly, William. 'Inequality Does Cause Underdevelopment: Insights from a New Instrument'. *Journal of Development Economics* 84, no. 2 (1 November 2007): 755–76.
Edwards, Sebastian. Left behind: Latin America and the false promise of populism. *University of Chicago press*, 2010.
Engerman, Stanley L., and Kenneth L. Sokoloff. 'Factor Endowments: Institutions, and Differential Paths of Growth Among New World Economies: A View from Economic Historians of the United States'. *National Bureau of Economic Research Working Paper Series*, 1 December 1994.
——— 'Factor Endowments, Inequality, and Paths of Development Among New World Economics'. *National Bureau of Economic Research Working Paper Series*, 10 October 2002.
——— .Economic development in the Americas since 1500: endowments and institutions. *Cambridge University Press*. 2012
Escosura, Leandro Prados de la, Timothy J. Hatton, Kevin H. O'Rourke, and Alan M. Taylor. '„Inequality and Poverty in Latin America: A Long-Run Exploration "'. *Hatton, Timothy; Kevin ORourke; Alan Taylor (Hg.): The New Comparative Economic History. Essays in Honor of* Jeffrey G. Williamson. Cambridge Mas. & London, 2007, 291–315.
Ferraz, C., Finan, F., & Martinez-Bravo, M. Political power, elite control, and long-run development: Evidence from Brazil. *National Bureau of Economic Research. 2020*
Fourie, Johan, and Dieter von Fintel. 'A History with Evidence: Income Inequality in the Dutch Cape Colony'. *Economic History of Developing Regions* 26, no. 1 (1 June 2011): 16–48.

Frankema, Ewout. 'Raising Revenue in the British Empire, 1870-1940: How Extractive Were Colonial Taxes?' *Journal of Global History*, 2010, 447–477.
———. 'The Colonial Roots of Land Inequality: Geography, Factor Endowments, or Institutions?' *The Economic History Review* 63, no. 2 (May 2010): 418–51.
Frankema, Ewout, and Marlous Van Waijenburg. 'Metropolitan Blueprints of Colonial Taxation? Lessons from Fiscal Capacity Building in British and French Africa, c. 1880-1940'. *The Journal of African History*, 2014, 371–400.
Gardner, Leigh. *Taxing Colonial Africa: The Political Economy of British Imperialism*. Oxford University Press, 2012.
Gasparini, Leonardo, and Leopoldo Tornarolli. 'A Review of the OECD Income Distribution Database'. *The Journal of Economic Inequality* 13, no. 4 (2015): 579–602.
Gelman, A., & Imbens, G. (2013). Why ask why? Forward causal inference and reverse causal questions (No. w19614). National Bureau of Economic Research.
Glaeser, E. L., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2004). Do institutions cause growth?. Journal of economic Growth, 9(3), 271-303.
Global Revenue Statistics Database - OECD. Accessed 12 August 2020.
Goni, Edwin Lopez, J. Humberto Serven, Luis. *Fiscal Redistribution And Income Inequality In Latin America*. Policy Research Working Papers. The World Bank, 2008.
'GPIH - Early Income Distributions'. Accessed 16 July 2020.
Grafe, Regina, and Alejandra Irigoin. 'The Spanish Empire and Its Legacy: Fiscal Redistribution and Political Conflict in Colonial and Post-Colonial Spanish America'. *Journal of Global History* 1, no. 2 (2006): 241–267.
———.. 'A Stakeholder Empire: The Political Economy of Spanish Imperial Rule in America 1'. *The Economic History Review* 65, no. 2 (2012): 609–651.
Haber, Stephen. 'Politics and Banking Systems'. In *NBER Chapters*, 245–94. National Bureau of Economic Research, Inc, 2011.
Hanni, Michael, Ricardo Martner Fanta, and Andrea Podestá. 'The Redistributive Potential of Taxation in Latin America', August 2015.
Herbst, Jeffrey. States and power in Africa. Princeton University Press, 2014.
WID - World Inequality Database. 'Home'. Accessed 16 July 2020.
ILOSTAT. 'Informal Economy'. Accessed 12 August 2020.
Irigoin, Alejandra. 'Representation Without Taxation, Taxation Without Consent: The Legacy of Spanish Colonialism in America'. *Revista de Historia Económica; Montevideo* 34, no. 2 (September 2016): 169–208.
Jenkins, R. The political economy of industrialization: a comparison of Latin American and East Asian newly industrializing countries. *Development and Change*, 22(2), 197-231. 1991
Kaufman, Robert R., and Barbara Stallings. 'The Political Economy of Latin American Populism'. In *The Macroeconomics of Populism in Latin America*, 15–43. University of Chicago Press, 1991.
Kosack, Stephen. *The Education of Nations: How the Political Organization of the Poor, Not Democracy, Led Governments to Invest in Mass Education*. Oxford University Press, 2012.
Lindert, Peter H., ed. 'Explaining the Rise of Social Transfers Since 1880'. In *Growing Public: Social Spending and Economic Growth since the Eighteenth Century: Volume 1: The Story*, 1:171–90. Cambridge: Cambridge University Press, 2004.
———. *Growing Public: Volume 1, the Story: Social Spending and Economic Growth since the Eighteenth Century*. Vol. 1. Cambridge University Press, 2004.
Lindert, Peter H., and Jeffrey G. Williamson. *Unequal Gains: American Growth and Inequality Since 1700*. Princeton, UNITED STATES: Princeton University Press, 2016.
'LIS Cross-National Data Center in Luxembourg'. Accessed 16 July 2020.
Lopez, J. Humberto, and Guillermo Perry. *Inequality in Latin America: Determinants and Consequences*. The World Bank, 2008.
Lustig, Nora. 'Inequality and Fiscal Redistribution in Middle Income Countries: Brazil, Chile, Colombia, Indonesia, Mexico, Peru and South Africa'. *Journal of Globalization and*

Development 7, no. 1 (2016): 17–60.
Mariscal, Elisa, and Kenneth Sokoloff. 'Schooling, Suffrage and the Persistence of Inequality in the Americas'. *Political Institutions and Economic Growth in Latin America: Essays in Policy, History and Political Economy. Hoover Institution Press, Stanford*, 2000, 159–218.
McArthur, John W., and Jeffrey D. Sachs. 'Institutions and Geography: Comment on Acemoglu, Johnson and Robinson (2000)'. National bureau of economic research, 2001.
Meltzer, Allan H., and Scott F. Richard. 'A Rational Theory of the Size of Government'. *Journal of Political Economy* 89, no. 5 (1981): 914–927.
Meredith, David, and Deborah Oxley. "Food and fodder: feeding England, 1700–1900." Past and Present 222.1 (2014): 163-214.
Milanovic, Branko. 'Towards an Explanation of Inequality in Premodern Societies: The Role of Colonies, Urbanization, and High Population Density'. *The Economic History Review* 71, no. 4 (2018): 1029–1047.
Milanovic, Branko, Peter H. Lindert, and Jeffrey G. Williamson. 'Pre-Industrial Inequality'. *The Economic Journal* 121, no. 551 (2011): 255–272.
Moatsos, Michail, Joerg Baten, Peter Foldvari, Bas van Leeuwen, and Jan Luiten van Zanden. 'Income Inequality since 1820', 2 October 2014, 199–215.
North, Douglass C., William Summerhill, and Barry Weingast. 'Order, Disorder and Economic Change: Latin America vs. North America'. *Governing for Prosperity* 19 (2000).
Nunn, Nathan. 'Historical Development'. In *Handbook of Economic Growth*, 2:347–402. Elsevier, 2014.
———. 'Slavery, Inequality, and Economic Development in the Americas'. *Institutions and Economic Performance* 15 (2008): 148–180.
Odusola, Ayodele. 'Fiscal Policy, Redistribution and Inequality in Africa'. *Income Inequality Trends in Sub-Saharan Africa: Divergence, Determinants and Consequences (2017)*, 2017.
OECD. *Tax Morale: What Drives People and Businesses to Pay Tax?* OECD, 2019.
———. 'The Social Contract in Latin America and the Caribbean: Situation and Policy Challenges', 9 April 2018, 43–87.
OECD, CAF Development Bank of Latin America, and United Nations Economic Commission for Latin America and the Caribbean. *Latin American Economic Outlook 2018: Rethinking Institutions for Development*. Latin American Economic Outlook. OECD, 2018.
'OECD Income Distribution Database (IDD). Accessed 20 June 2020.
O'Rourke, Kevin H. "The European grain invasion, 1870–1913." *The Journal of Economic History* 57.4 (1997): 775-801.
O'Rourke, Kevin H., and Jeffrey G. Williamson. *Globalization and History: The Evolution of a Nineteenth-Century Atlantic Economy*. MIT press, 1999.
Oslo (PRIO), Peace Pesearch Institute. 'The Polyarchy Dataset - PRIO'. Accessed 26 June 2020.
Paglayan, A. S. (2021). The non-democratic roots of mass education: evidence from 200 years. American Political Science Review, 115(1), 179-198.
Pérez-Cajías, José Alejandro. 'The Expansion of Public Spending and Mass Education in Bolivia: Did the 1952 Revolution Represent a Permanent Shock?' *Has Latin American Inequality Changed Direction*, 2017, 195–218.
Piketty, Thomas. *Capital and Ideology*. Cambridge. Harvard University Press, 2020.
Piketty, Thomas, and Arthur Goldhammer. *Capital in the Twenty-First Century*. Cambridge, UNITED STATES: Harvard University Press, 2013.
'PolityProject'. Accessed 26 June 2020. https://www.systemicpeace.org/polityproject.html.
Porta, R. L., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. Journal of political economy, 106(6), 1113-1155.
Prados de la Escosura, Leandro. 'World Human Development: 1870–2007'. *Review of Income and Wealth* 61, no. 2 (2015): 220–247.
Robinson, James A. "States and Power in Africa by Jeffrey I. Herbst: A review essay." *Journal of Economic Literature* 40.2 (2002): 510-519.
Rodrik, Dani, Arvind Subramanian, and Francesco Trebbi. 'Institutions Rule: The Primacy of

Institutions over Geography and Integration in Economic Development'. *Journal of Economic Growth* 9, no. 2 (2004): 131–165.
Rodrik, Dani (2021), "How Economists and Non-Economists Can Get Along", *Project Syndicate*, 9 March.
Roemer, John E., and Alain Trannoy. 'Chapter 4 - Equality of Opportunity'. In *Handbook of Income Distribution*, edited by Anthony B. Atkinson and François Bourguignon, 2:217–300. Handbook of Income Distribution. Elsevier, 2015.
Roodman, D., Nielsen, M. Ø., MacKinnon, J. G., & Webb, M. D. (2019). Fast and wild: Bootstrap inference in Stata using boottest. *The Stata Journal*, 19(1), 4-60.
Roy, Tirthankar. *Fiscal and Monetary Systems. The Economic History of India, 1857-1947*. Oxford University Press. Accessed 15 August 2020.
Sachs, Jeffrey D. 'Social Conflict and Populist Policies in Latin America'. Working Paper. Working Paper Series. National Bureau of Economic Research, March 1989.
Saleh, M. Export Booms and Labor Coercion: Evidence from the Lancashire Cotton Famine. 2020
Skoufias, Emmanuel, Kathy Lindert, y Joseph Shapiro. «Globalization and the Role of Public Transfers in Redistributing Income in Latin America and the Caribbean». World Development, Globalization, Poverty, and Inequality in Latin America, 38, n.º 6 (2010): 895-907.
Sokoloff, Kenneth and James A. Robinson. Chapter IV "Historical Roots of Inequality in Latin America" in Inequality in Latin America: Breaking with History? In De Ferranti, David M., ed. Inequality in Latin America: breaking with history? World Bank, 2004.
Sokoloff, Kenneth L., and Eric M. Zolt. 'Inequality and the Evolution of Institutions of Taxation: Evidence from the Economic History of the Americas'. In *The Decline of Latin American Economies: Growth, Institutions, and Crises*, 83–138. University of Chicago Press, 2007
Solt, Frederick. «Measuring income inequality across countries and over time: The standardized world income inequality database». Social Science Quarterly 101, n.º 3 (2020): 1183-99.
Stanziani, Alessandro. 'Slavery in India'. In *The Cambridge World History of Slavery: Volume 4: AD 1804–AD 2016*, edited by David Eltis, David Richardson, Seymour Drescher, and Stanley L. Engerman, 4:246–71. Cambridge University Press, 2017.
Sunkel, Osvaldo. "Development from Within: towards a neostructuralist approach for Latin America." 1992.
World Bank. GDP per capita, PPP (current international $) | Data'. Accessed 10 October 2022
World Bank. 'Tax Revenue (% of GDP) - India | Data'. Accessed 13 August 2020.
Vanhanen, Tatu. 'A New Dataset for Measuring Democracy, 1810-1998'. *Journal of Peace Research* 37, no. 2 (2000): 251–265.
Vries, Peer. Escaping poverty. V&R unipress, 2013.
Williamson. "Globalization, Labor Markets and Policy Backlash in the Past" Journal of Economic Perspectives 12 (4), Pages 67-68. 1998
———. "Real wages, inequality and globalization in Latin America before 1940." Revista de Historia Economica-Journal of Iberian and Latin American Economic History 17.S1 (1999): 101-142.
———. Globalization and the Poor Periphery before 1950. Mit Press. 2006
———. 'Five Centuries of Latin American Inequality'. Working Paper. Working Paper Series. National Bureau of Economic Research, August 2009.
———. 'Latin American Inequality: Colonial Origins, Commodity Booms or a Missed Twentieth-Century Leveling?' *Journal of Human Development and Capabilities* 16, no 3. 2015
Ziesemer, T. (2016). Gini coefficients of education for 146 countries, 1950-2010. Bulletin of Applied Economics, 3(2), 1-8. August 2016