Elite Factions, Inequality, and Taxation*

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Abstract

This study examines the relationship between land inequality and tax collection in Colombia during the mid-20th century. Contrary to traditional models that emphasize the redistributive role of taxation, our analysis suggests a significant link between land concentration and the efficiency of tax collection, particularly in agricultural societies. We explore this relationship both theoretically and empirically using a simple public goods game and a novel dataset on subnational government spending and revenue from 1923 to 1960, supplemented by historical census data. Our findings contribute to understanding state capacity and taxation in the context of early economic and state development.

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1 Introduction

Taxation is often viewed as a key tool for redistributing wealth and reducing inequality. Classic economic theories, from De Tocqueville (1835) to contemporary models by Meltzer and Richard (1981) or Acemoglu and Robinson (2006), suggest that democratic societies with greater income inequality should display a higher propensity for taxation and redistribution. From this perspective, elites naturally oppose the idea of paying taxes (Hollenbach and Silva, 2019). However, the historic role of states has not been redistribution but the provision of public goods. Connecting territories through transport networks, protecting property rights, or solving contractual disputes are among the activities we associate with the idea of state 'capacity.' These activities are potentially beneficial for elites because they increase the value of their assets.

In this paper, we show that there is a positive relationship between inequality and state capacity, even in non-democratic environments. Specifically, we argue that in agricultural societies with high land concentration, it may be easier for the state to 'negotiate' with elites to obtain resources to finance public goods. On the one hand, the benefits of higher tax collection are concentrated in a few landowners whose land values increase with public good provision and, therefore, have more incentives to contribute. On the other hand, it is easier for bureaucrats to collect taxes in places where resources are concentrated in the hands of a few. That is, in places where those who must pay taxes are easy to recognize and find, the tax administration can more easily solve collective action problems.

We capture these ideas in a simple public goods game that predicts greater tax collection in more unequal localities. In the proposed framework, landowners decide whether to comply or not with tax obligations based on the benefit they receive from their tax payments and the probability that they are caught by the government evading taxes. While the benefit of complying with tax obligations is growing with their land value, the cost of evading increases with land inequality, as it facilitates tax collection by bureaucrats. We corroborate the model's predictions using tax revenue data from Colombian municipalities between 1920 and 1960.

We combine information from municipal tax revenues and population census. Our main source is a novel dataset on government spending and revenue at the subnational level between 1923 and 1960. With this information, we construct our main measures of taxation and spending at the municipal level: taxes per capita and the cost of tax collection as a proportion of total revenue, that is, the average cost of collecting one peso. After 1957,

the dataset also includes information on revenue distribution between direct and indirect taxes.

To measure historical land inequality, we take advantage of the occupation counts of the 1938 Population Census. Specifically, the proportion of landowners to agricultural workers. Though not a direct measure of land concentration, the inverse of this measure provides us with the most complete estimation of subnational inequality for the early 20th century. In particular, a lower proportion of landowners to agricultural workers is closely related to higher land inequality. We corroborate our measure in two ways. First, we use the 1890 Cadastre for the department of Cundinamarca, from which we construct Gini coefficients for the distribution of land wealth at the municipal level. Second, we use information from Colombia's first coffee census (compiled in the early 1920s). From this source, we estimate a Gini coefficient of land among coffee farm owners. Both measures are highly correlated with the 1938 land concentration measure.

This paper documents a positive and robust correlation between land inequality and tax revenue per capita. Moreover, it documents a negative and robust correlation between inequality and the average cost of collecting one peso of revenue. We interpret these two findings as evidence that it is easier for the state to collect revenue in places where assets are concentrated and their owners are easier to identify and bargain with. These correlations are relatively constant during the years in our sample, which covers very different contexts, and are robust to making comparisons only within the different departments (i.e., including department fixed effects). But ultimately, they are just correlations that may mask the effect of other factors that are correlated with historical inequality and collection.

Isolating the direct contribution of land concentration to state capacity is difficult without a concrete identification strategy, but we attempt to do so by considering the main alternative factors that could explain our empirical findings. First, it could be the case that places with high land inequality benefit from economies of scale and, therefore, have higher levels of economic activity that allow them to collect more taxes. We partially rule out this explanation by showing that the positive correlation comes mainly from direct as opposed to indirect taxes, which are mechanically increasing with economic activity. We provide further evidence against this explanation by controlling for non-tax revenue per capita at the municipality level. This variable includes revenues from the rent of local public goods and the provision of public services, which are also increasing with local economic activity.

Second, differences in economic inequality might arise from differences in the structure of local economies, which could also lead to different levels of taxation. In the case of Colombia, while the coffee economy is characterized by small and medium farms, cattle production is more likely to be practiced on large land tracts. Although we are limited by scarce historical data on municipal economic structure, we address this concern in two ways. First, we show that the robust, positive correlation between inequality and tax revenues per capita also holds when looking exclusively at coffee producing municipalities. Coffee consolidated as Colombia's main export during the 1930s. It was (and still is) produced in municipalities along the three Andes' ranges. Municipalities specialized in coffee cultivation shared similar economic structures (Palacios, 2002; Uribe-Castro, 2020). We show the Gini coefficient for coffee lands, an alternative measure of land inequality, is positively correlated with tax revenues. Second, we collect information on the number of coffee trees and the level of cattle slaughter per inhabitant and use them as controls in our specifications. All of our results are robust to controlling for the number of coffee trees per capita and our measure of cattle farming.

Another potential threat to the interpretation of our main findings is the argument that the land distribution in Colombia is an outcome of the colonial land allocation practices that also determined fiscal capacity during the colonial era (for example, the encomiendas, fiscal institutions, which gave way to large estates) (Engerman and Sokoloff, 1997). This raises the concern that more fundamental variables, such as historical institutions or initial population patterns, are the main explanation behind state capacity and land distribution. We rule out this potential source of endogeneity by showing that the results remain unchanged after controlling for municipality level variables of Spanish occupation and indigenous population in the 1500s.

Many of the benefits of state capacity are difficult to observe empirically. For example, the benefits from better protection of property rights, the reduction of uncertainty through a more stable legal system, or the gains in market access from the construction of transport routes. Among what we can measure, which is municipal fiscal expenditure for different categories, we find that indeed municipalities where land was more concentrated in 1938 have higher infrastructure spending during the mid-20th century. Furthermore, there is no correlation between land concentration and other types of expenditure associated with redistribution such as education or social welfare.

We have emphasized so far that these correlations are consistent with a model where the state negotiates more easily with local elites in places with greater inequality. In line

with these ideas, we use the political power shifts in 1930 and 1946 to explore how the political alignment between local elites and the party controlling the central government affects fiscal revenues and expenditures. In 1930, the Liberal party unexpectedly came to power after 55 years when the Conservative party, which had the majority of the votes, split into two candidacies. In 1946, a similar event occurred: the Conservative party returned to power after the Liberal faction split its votes. We find that places with high inequality and higher percentages of elite votes for the Liberal party in 1930 generate higher revenues only when the Liberal party is in power. In fact, the opposite is true after 1946: the more conservative places with high inequality generate more revenue and receive higher infrastructure spending.

As Besley (2020) highlights, investments in state capacity require reciprocity between citizens and the state. Our purpose is to contribute to that idea by pointing out that, in early stages of economic and state development, the most important reciprocity is perhaps between the state and the elites—rather than among all citizens in general. This idea echoes Dell (2010) finding about the prevalence of public goods in places with higher land concentration.

This paper contributes to three different strands of existing literature. First, it adds to the literature on the origins of fiscal capacity and state formation in the developing world. While available evidence highlights the obstacles of economic inequality to democracy and taxation (e.g., Acemoglu and Robinson, 2006; Besley and Persson, 2011), we show that higher economic inequality can increase government size under certain conditions. Second, we contribute to the literature exploring the effect of economic inequality on taxation. In contrast with the evidence provided by Hollenbach and Silva (2019) for Brazilian municipalities and Sokoloff and Zolt (2005) for countries in the Americas, we document a positive and significant correlation between inequality and taxation in the early stages of state formation. Finally, this paper adds to a broader literature on public finance. Whereas the bulk of empirical evidence has focused on how tax systems influence income or wealth distribution (Slemrod, 1992; Piketty and Cantante, 2018), how economic inequality can shape local tax systems remains understudied.

2 Theoretical Framework

In a standard model of tax compliance, a taxpayer endowed with an exogenous income y and facing a tax τ must choose whether to comply and pay the tax τ or not to comply. If

the taxpayer doesn't comply, he is detected with certain probability π and needs to pay a fine q (Allingham and Sandmo, 1972). In this section, we extend this simple theoretical framework to understand how wealth inequality can shape citizen's willingness to pay taxes at the local level.

Our model is built upon the argument that wealth inequality affects local taxation through two main channels: tax compliance and enforcement. First, wealth distribution determines which sectors of the population bear the highest cost and benefit of taxation and, consequently, their willingness to comply with tax obligations. Second, the concentration of wealth in the hands of a few facilitates government's enforcement as it reduces the cost of raising an additional dollar of revenue.

We illustrate these two points theoretically in a simple public goods game. Our context is a municipality collecting property taxes from landowners. More formally, there are L_m landowners in a municipality m out of a population normalized to 1. Each landowner i owns a plot of land with total value l_i out of a land value in the municipality normalized to 1. The landowner decides whether to comply (C) with tax obligations and pay τl_i or not to comply (NC) and pay zero. The total number of compliers is given by N_c and the value of the public good provided by the government is equal to $\tau \sum_{j=1}^{N_c} l_j$. The benefit that the landowners receive from the local public good is proportional to the value of their land. Therefore, the benefit that landowner i receives from complying with tax obligations can be expressed as $l_i \tau (l_i + \sum_{j=1}^{N_{c-i}} l_j)$. On the other hand, if the landowner decides not to comply with tax obligations, he is detected with certain probability $\pi(L_m)$ that depends on the proportion of landowners in the municipality. For simplicity, we assume that $\pi = 1 - L_m$, reflecting the fact that a lower proportion of landowners in the population facilitates tax enforcement by the government and increases the probability of detection. Finally, if detected evading taxes, the landowner needs to pay a penalty rate c over the value of his land.

The payoff that landowner i in municipality m receives when complying with tax obligations is given by:

$$\Pi_C = l_i \tau (l_i + \sum_{j=1}^{N_{c-i}} l_j) - \tau_m l_i$$

And the payoff of not complying can be expressed as:

$$\Pi_{NC} = l_i \tau (\sum_{j=1}^{N_{c-i}} l_j) - (1 - L_m) c_m l_i$$

Hence, landowner i will decide to comply with tax obligations whenever $\Pi_C \geq \Pi_{NC}$. In particular, after simplifying, we get that landowners will comply with tax obligations whenever $l_i \geq 1 - (1 - L_m)\frac{c_m}{\tau_m}$ or similarly, landowners with land values above $l_i^* = 1 - (1 - L_m)\frac{c_m}{\tau_m}$ will decide to pay taxes. From this result, we can deliver the main prediction of our model as follows. Total taxes collected in municipality m can be expressed as:

$$T_m = \sum_{i=1}^{N_c} \tau_m l_i$$

$$E\left[T_m\right] = \tau_m \sum_{i=1}^{N_c} E[l_i | l_i > \alpha]$$

Furthermore, for simplicity, if we assume $l_i \sim U(0,1)$, we get:

$$\mathbb{E}\left[T_m\right] = T_m = \tau_m \sum_{i=1}^{N_c} \frac{1}{2}(1 - \alpha^2)$$

$$T_m = \tau_m N_c \left[\frac{1}{2}(1 - \alpha^2)\right]$$

$$T_m = \tau_m N_c \left[\frac{1}{2}(1 - (1 - (1 - L_m)\frac{c_m}{\tau_m})^2)\right]$$

Finally, taking the partial derivative of T_m with respect to L_m, leads to the main prediction of our model. Namely that local taxation T_m falls with higher proportion of landowners L_m or what is the same, that T_m increases with $1 - L_m$.

$$\frac{\partial T_m}{\partial L_m} = -(1 - c(1 - L_m))\frac{c_m}{\tau_m} < 0$$

Simple Model Simulation

Using the observed values of l_i, τ_m, L_m, and the total land value of municipality m (V_m) for the state of Cundinamarca, we can evaluate how well the model fits the data. In particular, we can express predicted taxation at the local level as:

$$\hat{T_m} = V_m \times \tau_m \times \sum_{i=1}^{N} l_i \, \mathbb{1}\{l_i \geq 1 - (1 - L_m)\frac{c_m}{\tau_m}\}$$

We will use observed values of τ_m, V_m and T_m in 1960. Furthermore, we will use l_i and L_m values of 1890 and 1938, respectively. We believe these two variables are still a

good approximation of land distribution in 1960 as historical evidence agrees on minimal variation in land distribution throughout the 20th century. Finally, we will approximate the value of c using historical evidence. In particular, given a value of $\tau_m = \tau = 0.004$ in 1960, we will define $c_m = c = 0.005$. Using this approximation, Figure 1 plots the distribution of observed and predicted T_m for the state of Cundinamarca.

3 Historical Context

Historical Land Distribution

Land distribution in Colombia is a legacy of the colonial experience (Bértola and Ocampo, 2021). Large properties called Haciendas emerged during the colonization process from the system of encomiendas, an institution established by the Spanish crown to allocate the labor and tribute of indigenous people to conquistadors. Moreover, this transformation of encomiendas into larger farms occurred simultaneously with the allocation of smaller plots of land from the Crown to criollo farmers and the rise of small estates (minifundios) from colonial indigenous reservations (Faguet et al., 2020).

This colonial land-holding structure did not change much after independence (Bértola and Ocampo, 2021). The defining characteristic of land policies in the 19th century was the allocation of publicly held land with very little redistributive effects. In particular, the main objective of the government was to raise funds to pay off public debts and encourage the development of largely unpopulated areas (Safford et al., 2002). According to LeGrand (1986), this was done in two phases: an initial phase, from 1820 to 1873, where the government focused on raising funds by issuing bonds exchanged for or redeemable in public lands; and a second phase that began with Law 61 of 1874, where the government aimed to limit the concentration and unproductive use of land by allowing settlers who occupied and made productive use of lands to acquire property titles. Although on a de jure basis, these policies were aligned with their main objectives, their implementation was particularly difficult due to the inability of the central government to enforce land laws at the local level (Sánchez et al., 2010).

Finally, throughout the 20th century, land reforms occurred in Colombia in the 1930s, 1960s, and 1990s. However, the defining characteristic continued to be the transfer of publicly held land with limited redistributive effects (Bértola and Ocampo, 2021). Although vast quantities of public land were allocated to peasants and farmers, only a small portion came from confiscating or purchasing from large landlords. As a result, after two

centuries of land policies, large landowners at the top of the distribution remain mostly unchallenged.

Local Public Finance Accounts

During the first decades of the 20th century, municipalities in Colombia experienced an increase in fiscal autonomy. Although the Colombian Constitution of 1886 transformed the country from a decentralized federal system to a centralized system, a series of reforms promoted fiscal decentralization during the first half of the 20th century. For instance, the Código de Régimen Político y Municipal of 1913 increased the degree of discretion of local governments over their tax institutions. This code established that departmental and municipal assemblies were allowed to tax new goods or services as long as these were free from taxation at the national level.

Following these new guidelines, Law 20 of 1908 created property tax as a municipal revenue with a nominal tax rate of two pesos per thousand of property valuation. Subsequently, Law 97 of 1913 created the industry and commerce tax, mainly levied on commercial establishments' sales. These two taxes became, and still are today, the main direct and indirect source of taxation at the local level.

Regarding expenditures, an important portion of local taxes collected at the time was allocated to the construction and expansion of public services infrastructure, including energy, water, and sanitation. In particular, Decree 2473 of 1948 established that a quarter of revenue from property taxes had to be destined for the Institute of Municipal Development (Instituto de Fomento Municipal), the entity in charge of executing large public infrastructure projects at the local level.

Finally, it is also worth mentioning that belonging to the ruling coalition was important in influencing the allocation of local public expenditures. Throughout most of the 20th century, presidents appointed governors, and governors appointed local majors, so alignment with the political party on power was essential to benefit from large local infrastructure investments. The story of Valledupar, an eminently liberal municipality, provides evidence of this. As García (1999) argued, the arrival to power of liberal candidate Alfonso López Pumarejo was a turning point for the development of public infrastructure in this city. During his second period as president, from 1942 to 1945, he appointed Alfonso Araújo Cotes, a liberal local leader born in Valledupar, as director of the Institute of Municipal Development. Among other important infrastructure investments under the power of liberals, the city was able to inaugurate its first airport in 1942, which was

named after Alfonso López Pumarejo, and began the construction of its first aqueduct networks that were expanded during the 1940s and 1950s.

4 Data

This paper draws from different historical data sources. First, we digitize local public finance data throughout the 20th century from three main primary sources: the Yearly Statistical Reports (Anuarios de Estadística) and Fiscal Statistics Report (Estadísticas Fiscales) published by the National Statistics Office (DANE), and the Financial Reports of the Comptroller (Informes Financieros del Contralor) published by the Office of the Comptroller General. From these sources, we code information on the main sources of municipal revenue (direct and indirect taxes, intergovernmental transfers, and non-tax income) and main categories of local expenditures (governance, justice, health, education, public services, public investment, among others). We use this data to build our two main measures of taxation at the municipality level: taxes per capita and the proportion of taxes to total revenue.

To measure historical land inequality, we use information from the Land Census of 1890, the Coffee Census published in 1927, and the Population Census of 1938. From the latter, we construct a proxy of historical land inequality using the proportion of landowners in the population. Moreover, to validate this measure, we use the Land Census for the state of Cundinamarca of 1890, from which we construct Gini coefficients for the distribution of landed wealth. We show that the proportion of landed elites is highly correlated with the Gini coefficients of Cundinamarca in 1890, giving support to our proxy of land inequality (Figure 1). In addition, as an alternative measure of land inequality, we construct a Gini coefficient for the distribution of coffee trees at the municipal level using the coffee census of 1927.

Finally, to evaluate the main mechanisms and rule out alternative interpretations of our results, we complement this set of variables with additional data from the Yearly Statistical Reports of 1948, the Municipalities Panel data from Universidad de Los Andes, and the Monthly Statistical Report (Boletín Mensual de Estadística) of 1973 published by DANE. From these sources, we obtain municipality level variables on cattle production per capita in 1948, colonial institutions (measured as a dummy of indigenous population and Spanish occupation in the 1500s), and presidential election results in 1930.

5 Inequality and Tax Revenue

Figure 2 plots the relationship between our measure of land inequality from the Population Census of 1938 and tax revenues per capita in 1957. We choose 1957 as it is the first year of the publication Estadísticas Fiscales which contains a more detailed disaggregation of local revenues and expenditures. A positive correlation between land inequality and taxation is evident from this plot, and this relationship is consistent for all the years with available information for the 20th century.

To further validate this result, Figure 3 plots the same relationship using two alternative measures of land inequality: the land Gini for the state of Cundinamarca in 1890 and land inequality between coffee landowners in 1926. The relationship remains positive in both cases.

Moreover, Figure 4 shows a disaggregation between the two main types of taxes, revealing that the correlation comes mainly from direct rather than indirect taxes. This piece of evidence suggests that the relationship between inequality and taxation goes beyond economic activity. In particular, whereas indirect taxes are closely linked to economic transactions, direct taxes (in this case, property taxes) are highly dependent on the government's investments in tax institutions and citizens' willingness to comply with their tax obligations.

6 Political Economy of Taxation

6.1 Political Alignment

Historical evidence has shown that large landowners in Colombia were more likely to benefit from funding the state if their municipality was aligned with the political party in power. Drawing from this argument, we exploit the unexpected win of a liberal candidate in the 1930 presidential election to show that the relationship between inequality and taxation is higher when the municipality is part of the ruling coalition. In particular, 1930 was the first year liberals were in power since 1885. We measure municipality alignment using the liberal win margin in the 1930 presidential election, which ranges between -1 (all votes for the conservative candidate) and 1 (all votes for the liberal candidate).

Table 1 shows the correlations between inequality and taxation for years with available information before and after 1930, including heterogeneous effects of being a liberal municipality. The results show that being liberal increases the correlation between in-

equality and taxation in the years following 1930 (1931 and 1940). In contrast, there is no significant additional effect of being liberal when conservatives are in power (1923 and 1928).

6.2 Public Expenditure Allocation

If large landowners are more willing to pay taxes in more unequal municipalities, it should be that more expenditures are allocated in these places on items that favor their own interests. To evaluate this possibility, Table 2 presents estimates of the relationship between land inequality and expenditures per capita for the main categories of spending that municipalities reported at the time. Although we observe a positive relationship between land inequality and all spending categories, the correlation is particularly larger for expenditures on public services and public investment. The latter included, among others, resources allocated to large infrastructure projects such as the expansion of aqueducts and sewerage networks, which were very likely to benefit the landed elites, especially in municipalities where they controlled large extensions of land.

6.3 Tax Collection Efficiency

Similar to the previous argument, if landed elites are more willing to pay taxes in more unequal municipalities, we should also expect lower bureaucratic costs of raising an additional peso of tax revenue in these places. To evaluate this hypothesis, we measure the cost of raising taxes as the ratio of tax collection expenditures to total tax revenues. Table 3 presents estimates of the relationship between this variable and land inequality. Although the significance disappears when including all controls, the estimates show that higher economic inequality is more likely to lower the cost of raising taxes.

Altogether, these three pieces of evidence support the argument that landed elites in more unequal municipalities pay more taxes in return for public goods that favor their own interests. In general, the results point to two conditions that increase the likelihood of this happening: when landed elites belong to the ruling coalition and revenues are allocated to projects that favor their own interests.

7 Ruling out Differences in Economic Activity and Historical Institutions as Mechanisms

So far, we have discussed evidence of the effect of land inequality on taxation focusing on the differential benefits that landed elites could receive in more unequal places. However, one main concern is that the positive correlation between inequality and taxation is just a result of differences in economic activity. For instance, it could be that municipalities with higher inequality benefit from economies of scale and, therefore, have higher economic activity and taxation. Ideally, we would like to control for GDP per capita at the municipality level, but such a measure is not available during the period analyzed. Instead, to proxy for local economic activity, we use the revenues received by the local governments from the rent of public goods and the provision of public services, which we label as non-tax revenue. Column (2) of Table 4 shows the correlation between inequality and taxation after controlling for this measure. Although the magnitude falls, the estimate remains positive and statistically significant.

Related to the previous concern, it could also be that places with relatively higher inequality have particular economic structures related to higher taxation. In the Colombian case, whereas coffee municipalities are characterized by small and medium farms, larger plots of land predominate in cattle municipalities. We alleviate this potential source of bias by showing that the positive correlation between inequality and taxation persists when measuring land inequality between coffee landowners, where we compare places with similar economic structures. However, to provide further evidence against this mechanism, Columns (3) and (4) of Table 4 show the correlation between inequality and taxation after controlling for the number of coffee trees and cattle slaughter per capita. We find that the relationship is robust to the inclusion of these controls.

Finally, asides from differences in economic activity, our results could be explained by more fundamental variables such as historical institutions. The argument that the distribution of land in Colombia is an outcome of the colonial past raises the concern that certain institutions or initial population patterns drive our main results. The estimates on Column (5) partially rule out this explanation by controlling for a dummy indicating the presence of indigenous population and Spanish occupation in the 1500s. We find no changes in the magnitude of our main coefficient, providing evidence against this channel.

8 Ruling out "Pure Redistribution" Mechanism

A positive correlation between inequality and taxation could be empirical support for models based on the median voter theorem, such as Meltzer and Richard's framework. These authors argue that widening the income distribution will drive the electorate to support higher taxes and more redistribution. Moreover, this model predicts that franchise extension will increase the support for taxation in more unequal places as the median voter will be further from the average income.

To evaluate how much this theory fits our main results, we exploit the introduction of universal male suffrage in 1936 in Colombia. Before this reform, only literate male citizens who owned property of $1,000 pesos or more, or yearly income over $300 pesos were able to vote (Chaves et al., 2015). If Meltzer and Richard's predictions are true, it should be the case that after this reform, the effect of inequality on taxation is higher as the median voter is more likely to support taxation and redistribution. Figure 5 shows that the correlation between inequality and taxation doesn't seem to experience an important change after 1936. To empirically validate this result, Table 5 presents the estimates for the effect of inequality on taxation before and after the introduction of universal male suffrage. We find no significant difference between the coefficients of 1931 and 1940, which we also corroborate in a regression with the change in taxes per capita between 1931 and 1940 as the dependent variable.

9 Conclusion

This paper presents new evidence about the role of economic inequality on taxation in an unstable democracy. In contrast to previous arguments about the adverse effects of higher concentration of wealth on fiscal capacity in developing countries, we find that under certain conditions, economic inequality can contribute to increasing the size of the government. In particular, using data from Colombian municipalities, we find a positive and significant correlation between historical land inequality and tax revenue per capita throughout the 20th century. This relationship is robust to the use of different measures of land inequality and taxation, and is not entirely explained by differences in economic activity and historical institutions. Instead, we think this correlation is driven more by the benefits that landed elites receive from contributing to funding the state, which are larger as inequality increases and when the municipality is part of the ruling coalition.

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Figures and Tables

Figure 1: Observed and predicted local taxation for the state of Cundinamarca

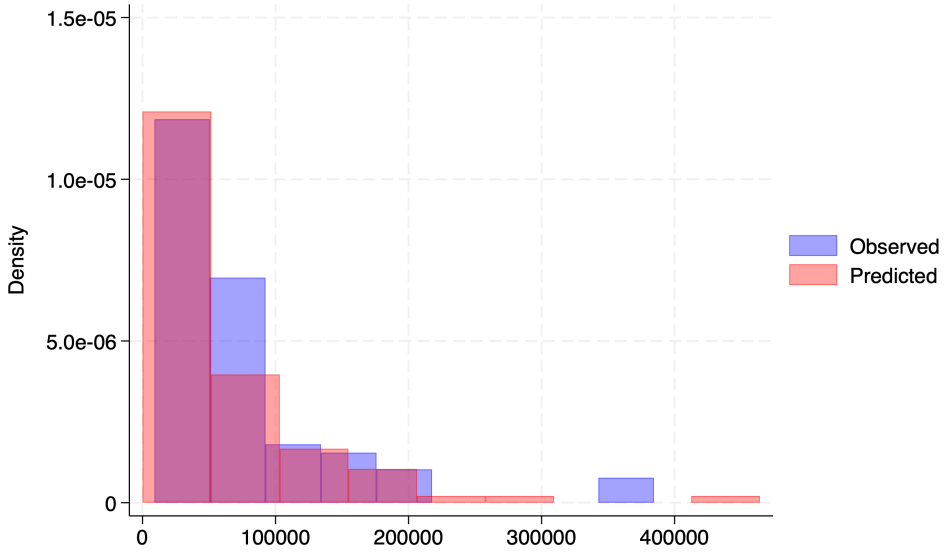
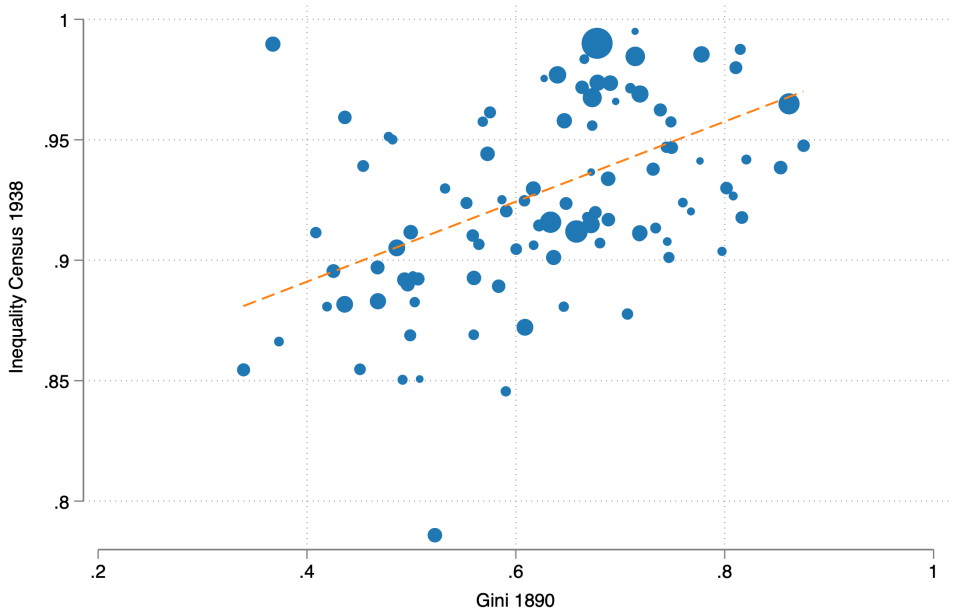


Figure 2: Land Gini 1890 and Inequality Census 1938, State of Cundinamarca



Note: Figure 1 shows a population weighted scatter plot between the land gini of 1890 and the proxy of economic inequality for Cundinamarca. The land gini represents the distribution of the value of land from the land Census of 1890, while the proxy of economic inequality is defined from the proportion of landed elites on the total population in 1938.

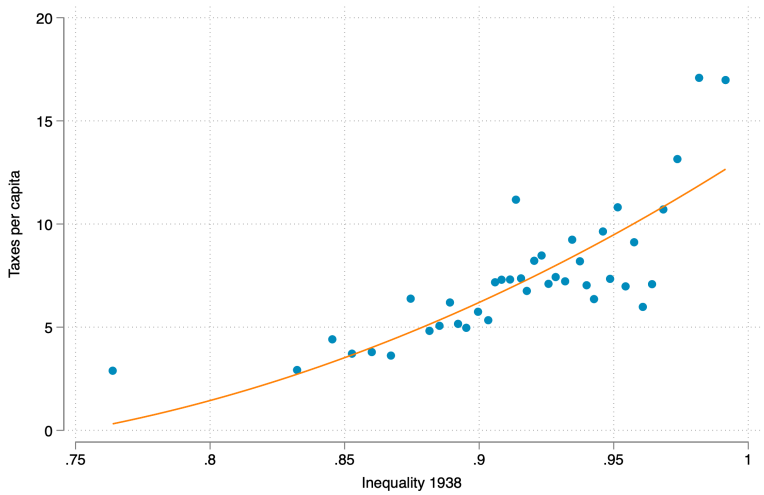
Table 1: Political Alignment

	1928 Ln(TaxesPC)	1931 Ln(TaxesPC)	1940 Ln(TaxesPC)	1943 Ln(TaxesPC)
Land Inequality 1938 (SD)	0.135***	0.173***	0.194***	0.205***
	(0.051)	(0.059)	(0.051)	(0.054)
Land Inequality 1938 (SD) × Liberal Win Margin	0.002	0.052	0.158**	0.109*
	(0.055)	(0.065)	(0.077)	(0.063)
Liberal Win Margin 1930	0.119***	0.144***	0.086	0.123***
	(0.042)	(0.053)	(0.062)	(0.046)
Constant	-1.116***	-0.991***	-1.160***	-1.358***
	(0.058)	(0.077)	(0.074)	(0.069)
Observations	532	514	461	619
R-squared	0.452	0.535	0.356	0.583
Econ. Activity Controls	YES	YES	YES	YES
Historical Inst.	YES	YES	YES	YES
State FE	YES	YES	YES	YES

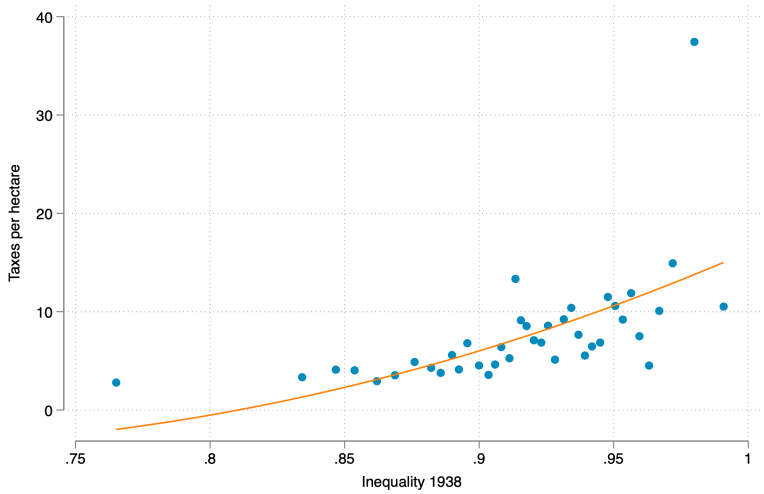
Note: Dependent variable for all specifications is the natural logarithm of taxes per capita. All specifications include economic activity and historical institutions controls, and state-level fixed effects. Robust standard errors are reported in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Figure 3: Land Inequality 1938 and Taxation, all municipalities

(a) Taxes per capita



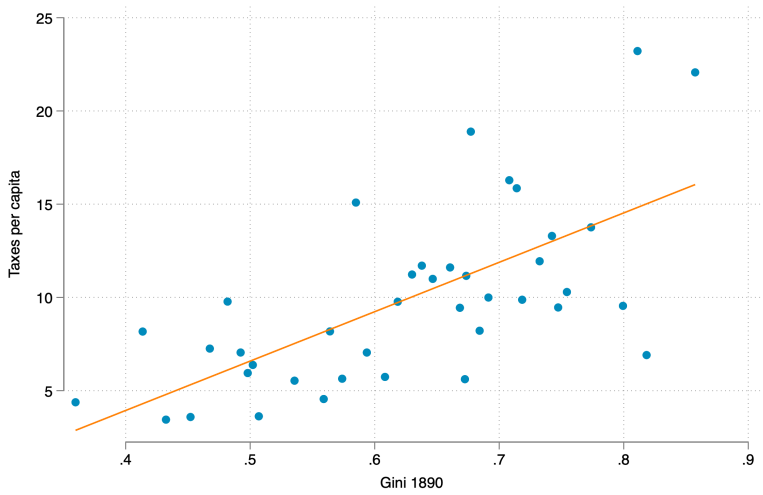
(b) Taxes per hectare



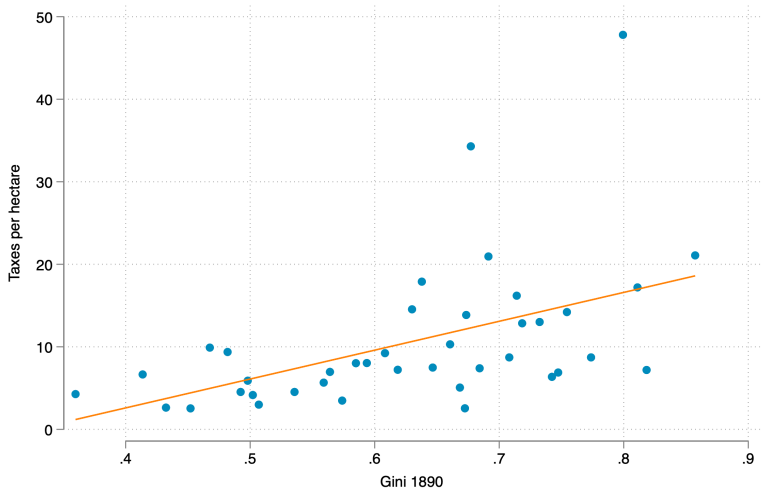
Note: Figures 2 (a) and (b) show a binscatter plot comparing the measure of land inequality from the Census of 1938 with taxes per capita and taxes per hectares of land in 1960. This sample includes all municipalities.

Figure 4: Land Gini 1890 and Taxation, Cundinamarca

(a) Taxes per capita

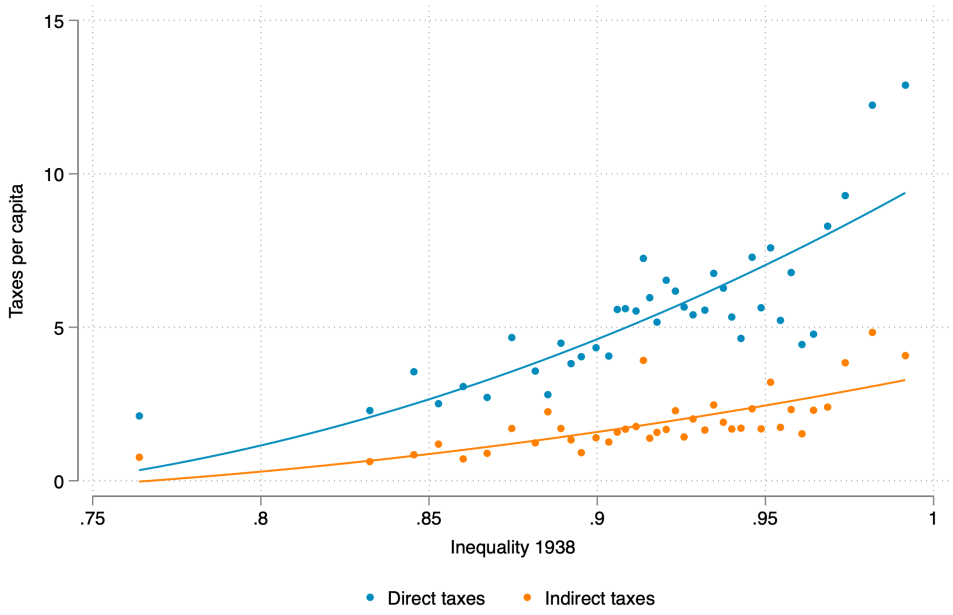


(b) Taxes per hectare



Note: Figures 3 (a) and (b) show a binscatter plot comparing the land gini of Cundinamarca in 1890 with taxes per capita and taxes per hectares of land in 1960. This sample includes only municipalities in Cundinamarca.

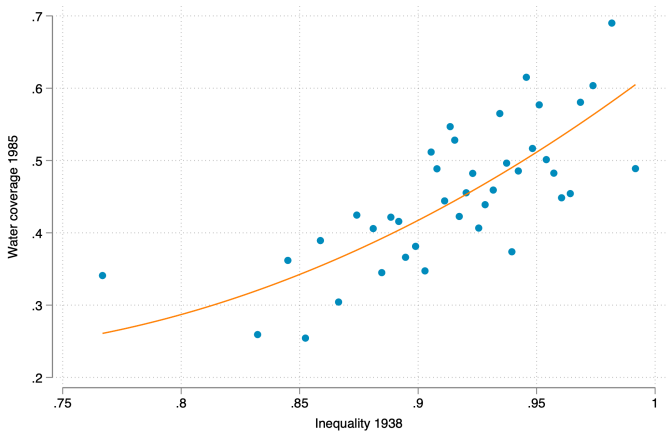
Figure 5: Direct vs. Indirect Taxes



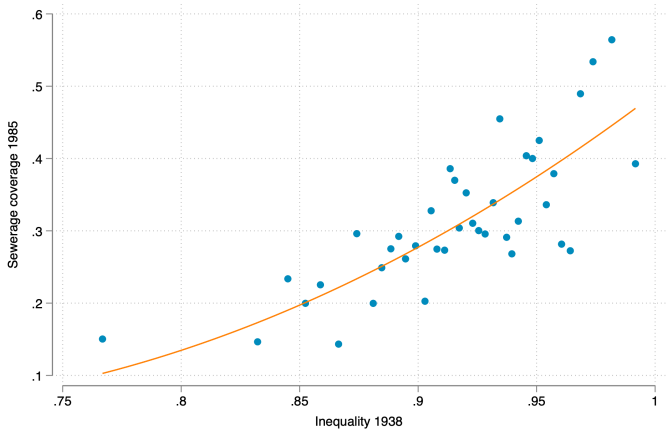
Note: Figure 4 shows a binscatter plot comparing the measure of land inequality from the Census of 1938 with taxes per capita in 1957, disaggregted between direct and indirect taxes.

Figure 6: Land Inequality 1938 and Public Services Coverage 1985

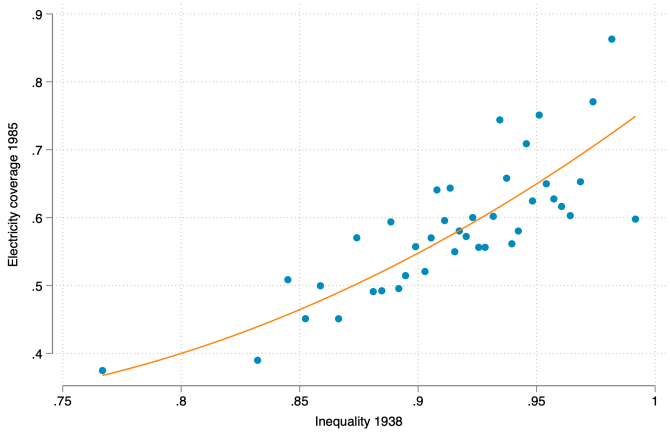
(a) Water coverage



(b) Sewerage coverage



(c) Electricity coverage



Note: Figures 5 (a), (b), and (c) show a binscatter plot comparing land inequality in 1938 with water, sewerage, and electricity coverage in 1985, respectively.

Table 2: Public Expenditure Allocation (percentages of total expenditures)

	(1) Gov.	(2) Just.	(3) Tax Coll.	(4) Educ.	(5) PublicS.	(6) Health	(7) Labor	(8) PublicInv.	(9) Control	(10) Stats.	(11) Debt	(12) Others
Land Inequality 1938 (SD)	-0.759**	-0.280	-0.724***	-0.174	1.534***	0.141	0.089	-0.013	0.043**	-0.001	0.063	0.079
	(0.363)	(0.193)	(0.232)	(0.175)	(0.404)	(0.134)	(0.133)	(0.525)	(0.019)	(0.014)	(0.167)	(0.263)
Observations	712	712	712	712	712	712	712	712	712	712	712	712
R-squared	0.495	0.323	0.342	0.185	0.136	0.331	0.450	0.185	0.700	0.196	0.405	0.250
Econ. Activity Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Historical Inst.	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
State FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: Dependent variable for all specifications is each expenditure item as a percentage of total expenditures. Colums (1) through (12) show the percentage of expenditures in Government, Justice, Tax Collection, Public Services, Health, Labor, Public Investments, Control, Statistics, Debt, and Others, respectively. All specifications include economic activity and historical institutions coefficients, and state-level fixed effects. Robust standard errors are reported in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 3: Tax Collection Efficiency

	(1) TaxExp/Taxes	(2) TaxExp/Taxes	(3) TaxExp/Taxes	(4) TaxExp/Taxes	(5) TaxExp/Taxes
Land Inequality 1938 (SD)	-0.015**	-0.011*	-0.015**	-0.014**	-0.010
	(0.007)	(0.006)	(0.007)	(0.007)	(0.006)
Ln(NonTaxRevenuePC)		-0.014***			-0.013**
		(0.005)			(0.006)
Coffee PC			-0.000		-0.000
			(0.000)		(0.000)
Cattle PC				-0.093	-0.029
				(0.090)	(0.095)
Spanish Occupation 1510-1561					-0.018*
					(0.010)
Indigenous Population 1535-1540					-0.014
					(0.009)
Observations	708	708	708	708	708
R-squared	0.281	0.289	0.281	0.282	0.294
State FE	YES	YES	YES	YES	YES
Mean Dep. Var.	0.198	0.198	0.198	0.198	0.198

Note: Dependent variable for all specifications is the ratio of tax collection expenditures to revenues from taxes. Column (1) does not include any controls and Column (5) includes all economic activity and historical institutions controls. All specifications include state-level fixed effects. Robust standard errors are reported in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Economic Activity and Historical Institutions Mechanism

	(1) Ln(TaxesPC)	(2) Ln(TaxesPC)	(3) Ln(TaxesPC)	(4) Ln(TaxesPC)	(5) Ln(TaxesPC)	(6) Ln(TaxesPC)
Land Inequality 1938 (SD)	0.215***	0.123***	0.213***	0.196***	0.212***	0.116***
	(0.047)	(0.032)	(0.047)	(0.045)	(0.047)	(0.031)
Ln(NonTaxRevenuePC)		0.271***				0.260***
		(0.020)				(0.020)
Coffee PC			0.000			0.000*
			(0.000)			(0.000)
Cattle PC				1.657***		0.587*
				(0.400)		(0.355)
Spanish Occupation 1510-1561					0.191***	0.176***
					(0.050)	(0.044)
Indigenous Population 1535-1540					0.085*	0.066
					(0.047)	(0.040)
Observations	709	709	709	709	709	709
R-squared	0.465	0.610	0.466	0.480	0.482	0.625
State FE	YES	YES	YES	YES	YES	YES
Mean Dep. Var.	1.740	1.740	1.740	1.740	1.740	1.740

Note: Dependent variable for all specifications is the natural logarithm of taxes per capita. Column (1) does not include any controls, column (2) and (3) include economic activity controls, column (4) includes historical institutions controls and column (5) includes all economic activity and historical institutions controls. All specifications include state-level fixed effects. Robust standard errors are reported in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Pure Redistribution Mechanism: Meltzer and Richard (1981)

	1928 Ln(TaxesPC)	1931 Ln(TaxesPC)	1940 Ln(TaxesPC)	1943 Ln(TaxesPC)
Land Inequality 1938 (SD)	0.135***	0.099**	0.143***	0.149***
	(0.048)	(0.040)	(0.045)	(0.041)
Constant	-0.782***	-0.994***	-0.915***	-0.926***
	(0.106)	(0.106)	(0.092)	(0.092)
Observations	544	494	693	601
R-squared	0.560	0.435	0.589	0.565
Econ. Activity Controls	YES	YES	YES	YES
Historical Inst.	YES	YES	YES	YES
State FE	YES	YES	YES	YES