Income Inequality, Judicial Independence, and Electoral Democracy in Africa

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Abstract

The foundation of every democratic institution is the freedom of all citizens, regardless of their income, to participate equally in the electoral and political processes, a concept known as *electoral democracy*. Nonetheless, in recent times, democratic ideals in some countries have declined, with wealthy political elites manipulating the electoral institutions to their benefit and to the detriment of the poor and other disadvantaged minorities. Previous research on the effect of income inequality on electoral democracy has produced discrepant results, with some scholars finding an adverse impact and others a positive or no effect. These scholars overlooked the importance of an independent judiciary—a key institution responsible for upholding the rule of law, protecting citizens' rights, and constraining the political branches. Additionally, the existing literature primarily focuses on other countries, with limited attention to Africa, which has countries ranking among the nations with the highest income disparity worldwide. This research bridges these gaps by examining the relationship between income inequality and judicial independence on electoral democracy, specifically in Africa. Furthermore, this paper argues that the relationship between income inequality and electoral democracy is conditional on a country's level of judicial independence. These predictions are tested across 48 African countries using panel data Ordinary Least Squares (OLS) regression, controlling for various variables from 1995 to 2010. The research produced mixed results. While the direct effect revealed a positive impact of income inequality on electoral democracy, the conditional effect varies by region. In North Africa, income inequality has a positive effect on electoral democracy in countries with higher levels of judicial independence, whereas in Africa South of the Sahara (erroneously cartographically referred to "sub-Sahara Africa"), the reverse is true. This study demonstrates how various political, social, economic, and legal contexts impact electoral democracy in Africa.

Keywords: Judicial Independence, Income Inequality, Electoral Democracy, Authoritarianism.

Introduction

In recent decades, scholars have discussed whether income inequality influences the interest of low-income people to participate equally with the rich in electoral and democratic processes in a country conceptualized as "electoral democracy" (Haggard and Kaufman, 2021; Mechkova et al., 2017). The renewed interest in the topic centers on the recent events of democratic ideals in some countries declining in a process described as "democratic breakdown" with elite politicians influencing the electoral process, disregarding human rights, and controlling the political institutions to the detriment of the poor and other disadvantaged minorities (Haggard and Kaufman, 2021; Maeda, 2010). Electoral democracy requires equal representation and competitive, free, and fair elections. Nevertheless, the dominance of political institutions by wealthy political elites hinders the ability of poor citizens to trust and participate equally in a country's democratic governance (Rowbottom, 2010).

Previous research on the effect of income inequality on electoral democracy has produced mixed results. While some scholars found that the increase in income inequality is associated with a decrease in electoral participation (Schäfer, 2013; Solt, 2008; Lister, 2007; Anderson and Beramendi, 2008; Boix, 2003), others found no significant relationship (Stockemer and Scruggs, 2012; Stockemer and Parent, 2014). But, other scholars have found that economic dissatisfaction is associated with increased voter turnout (Burden and Wichowsky, 2014). One main limitation of these scholarly works is the lack of attention given to the independent judiciary, described as judges having the power to make decisions that protect citizens' rights and check the executive's violation of rights without fear of retaliation, as a critical institution in moderating the effect of income inequality on electoral democracy. Judicial independence is essential in upholding democracies and restricting the discretion of political elites in both developed and developing countries (Haggard and Tiede, 2011). In addition, these previous studies were conducted with the exclusion (or limited inclusion) of African countries—a continent with one of the greatest income inequality levels and numerous electoral democratic breakdowns in recent years (Anyanwu et al., 2016; Odedokun and Round, 2001; Fombad, 2022).

Consequently, this research examines how income inequality impacts electoral democracy, particularly in the 1990s and early 2000s when most African countries transitioned toward democratic ideals and multiparty systems. In addition, we argue that the effect of income inequality on electoral democracy is conditioned on a country's level of judicial independence. This, this study reviews how the levels of judicial independence in a country can moderate the impact of income inequality on electoral democracy and foster inclusive participation in democratic elections. The mere existence of a high level of income inequality in an African country is not a complete determinant of electoral democracy decline. When the courts make decisions that protect the constitutional rights of disadvantaged groups from abuse by political elites, people are more likely to trust the courts and be more enthusiastic about participating in the political process (Ellett, 2020). The findings indicate that, contrary to expectations, income inequality is positively associated with electoral democracy in Africa. Nonetheless, the conditional effect varies by region in Africa. In North Africa, income inequality has a positive effect on electoral democracy at higher levels of judicial independence, whereas in Africa Soiuth of the Sahara, it has an adverse effect.

This article is organized as follows: Part 2 reviews the literature on the effects of income inequality on electoral democracy and the conditional effect of judicial independence. Part 3 describes the data and methodology. The results and analysis of this research are presented in

Part 4, while Part 5 is the discussion. Finally, Part 6 concludes and provides recommendations for future research.

Literature Review

A synchronic of thematic approach is used to review the relevant literature in this article. They are presented one after the other in the ensuing subsections for the sake of clarity.

Electoral Democracy Explained

Before examining the state of electoral democracies in Africa, it is imperative to discuss what democracies are in general and the characteristics of electoral democracies. Although there is no consensus on the definition of democracy, certain common themes exist in all democracies, including electoral democracies. Samuel Huntington stated that the essence of all democracies rests on free and fair elections, where candidates can run for office openly and freely (Huntington, 1991). Democracies must include participation of the people (the voters), rules establishing who and when someone can vote, for instance, universal suffrage by a certain age, voters deciding who wins, and a legal system that ensures the rule of law and politicians are accountable to those who elected them (Fombad, 2022). As Fombad noted, scholars also argue that democracies must include equality of opportunity and political and civil liberties, and one of the primary elements of political liberties is an independent and nondiscriminatory judiciary. Moreover, Jain (1979) added that a well-structured, effective, and unbiased judiciary is crucial for upholding the core values that support a democratic society. The judiciary's primary role is to embed these values and fundamental rights within the nation's legal, political, social, and constitutional frameworks. Therefore, the judiciary holds a vital position in the functioning of a democracy. The judiciary in democracies also performs a key function of protecting the integrity of elections and ensuring the peaceful transfer of power from one administration to the next.

While these core components reflect what all democracies must have, they also exemplify the essence of electoral democracies. Fombad (2022) contended that Freedom House (a non-governmental organization that aims to promote freedom and the spread of democracy worldwide) and similar organizations use several criteria to assess whether a country qualifies as an electoral democracy. These criteria include some of the aforementioned conditions, such as a competitive multiparty political system, universal voting rights for adults, and regularly held elections, but must also include the caveat that elections should be conducted by secret ballot with proper security and minimal voter fraud, and meaningful access for major political parties to reach voters through the media and open political campaigning. Freedom House categorizes countries that fulfill these conditions as "partly free" or at the minimum the citizens of these states have some level of civil and political rights in an electoral democracy.

Electoral Democracy and Income Inequality

The bedrock of every democracy is the establishment of opportunities for both the rich and the poor to participate equally in a country's political and electoral processes (Stockmeyer and Scruggs, 2012; Levin-Waldman, 2016). One characteristic of most African countries, however, is the high poverty level and the wide income gap between the rich and the poor. Studies are divided on the impact of income inequality on electoral democracy. A group of scholars found

that income inequality is negatively associated with citizens' participation in the electoral processes (Wilford, 2020; Schäfer, 2013; Solt, 2008; Lister, 2007; Anderson and Beramendi, 2008; Boix, 2003). Income inequality adversely impacts electoral democracy in several ways. First, it reduces the ability of poor citizens to participate equally with the rich, who have the resources and means to influence the outcome of elections through campaign funding (Briffault, 1999; Schnakenberg and Turner 2021). The existence of high-income inequality in society gives wealthy elites the resources to project policy issues that affect them while simultaneously suppressing the voices of the poor (Solt, 2008). For instance, Page et al. argue that some policy outcomes in the United States reflect the policy preferences of the "top one-tenth of 1 percent of US wealth-holders" (2012, 51), contrary to the majority public opinion. Hence, with the continued disregard of the issues pertinent to people with low incomes, they "can be expected to become more and more likely to rationally conclude that there is little point to being engaged in politics" (Solt, 2008, 49). Additionally, Houle examining 140 countries from 1961 to 2008, found that "an increase in economic inequality is correlated with a reduction in political equality" (2019, 1508), The author suggested that such an occurrence is possible through mechanisms including income inequality, which gives the wealthy an economic advantage over the poor and widens the policy preference gap between high- and low-income earners, reducing the enthusiasm of the poor to participate in and support politics and democracy.

Next, income inequality leads to a feeling of alienation among the poor, thereby the low-income voters assume that their votes do not count. The political elites with economic power also wield significant influence over electoral results in their favor (Anyanwu et al., 2016; Odedokun and Round, 2001). Hence, the outcome of elections mainly reflects the choices of the wealthy elites to the exclusion of the poor. This predominant situation triggers the reluctance of low-income individuals to participate in the political process due to a lack of trust in the institutions. With this feeling of apathy, low-income citizens become alienated from the political process, with their voices silenced and their votes suppressed (Levin-Waldman, 2016).

Also, some scholars offer conclusions with a positive direction: i.e. income inequality is associated with increased political participation. For instance, Burden and Wichowsky (2014) found that bad economic conditions induce citizens to participate more in elections. Using unemployment as an indicator of a bad economy, the authors argue that when an economy is in decline, citizens express their discontent through increased voter turnout to hold the government accountable (Burden and Wichowsky, 2014). Although this study focused on the high unemployment rate, research has shown that an increased unemployment rate is associated with increased income inequality (Cysne, 2009; Mocan, 1999). On the other side of the debate are studies that found no statistically significant effect of income inequality on political participation (Stockemer and Scruggs, 2012; Stockemer and Parent, 2014).

In sum, high income inequality decreases electoral competitiveness by transferring political power and resources to the wealthy, allowing them to control the political process and elections to their advantage. Elections require vast amounts of money for campaigning, strategizing, and media coverage. Notwithstanding that some African countries have adopted a multiparty system of elections in their constitutions, this procedural aspect of electoral democracy alone does not amount to equity in electoral democracy, especially given the unequal resources required for campaigning and party funding (Pottie, 2003). Reviewing the party financing and funding in southern Africa, Pottie argued that "unequal access to resources undermines confidence in the legitimacy of elections and representative democracy" (2003, 5). For low-income individuals, the possibility of participating in equal contestation is challenging.

The adverse effect of unequal access to campaign funds is that the majority's voices are suppressed, leaving political power in the hands of a few wealthy political elites, thereby leading to an unfair and uncompetitive outcome that is contrary to the expectations of an ideal electoral democracy. Building on the preceding theories, the expectation is that there is a negative association between income inequality and electoral democracy. The, the following hypothesis is proposed:

H₁: An increase in income inequality is associated with a decrease in electoral democracy.

Electoral Democracy and Judicial Independence

Previous studies have focused on the effect of income inequality on electoral democracy without emphasizing the role of judicial independence in moderating this effect. This limited attention is puzzling given the plethora of existing literature that provides evidence of the vital function of judicial independence in protecting constitutional rights and democratic ideals (Gibler and Randazzo, 2011; Rennock, Staton and Redean, 2015; Crabtree and Nelson, 2017; Staton et al., 2018). The meaning of judicial independence remains a subject of controversy among scholars because the concept is interpreted differently in various contexts (Tiede, 2006). Legal scholars, political scientists, and policymakers have divergent interpretations of the term because "it is not directly observable" (Linzer and Staton, 2015, 223). Nevertheless, in this paper, *judicial independence* is defined as judges having the power to decide cases without fear of pressure or reprisal from the executive or legislative branch. This definition is relevant to the electoral democracy concept used in this research because it captures the judiciary's influence in constraining political elites from manipulating democratic ideals and abusing the political liberties of the less privileged, particularly low-income individuals.

A key approach the judiciary uses to protect electoral democracy is through judicial review. This empowers the courts to declare actions of the elected branches that violate the law as unconstitutional. Concerning electoral democracy, the judiciary, through its decisions, also ensures that electoral rules and other constitutional rights, including the right to free speech and freedom of assembly, are protected and implemented. The checks and balances function of the judiciary therefore protects against electoral democratic backsliding (Lust and Waldner, 2015; Burcher and Bisarya, 2017). Thus, an independent judiciary free from political influence puts pressure on policymakers to comply with the law, and the courts would hold them accountable for violating democratic ideals (Crabtree and Nelson, 2017). Moreover, the courts' assertiveness and fearlessness in making decisions enhances their legitimacy, with low-income citizens having confidence in the courts and participating in the electoral process.

Furthermore, existing literature suggests that judicial independence safeguards democracies from declining to authoritarian regimes and protects equal political participation for all citizens (Gibler and Randazzo, 2011; Reenock et al., 2013; Staton et al., 2018). Authoritarian regimes lack the ideals of electoral democracy. Authoritarian leaders oppress political opposition, suppress the votes and voices of the people, and promulgate arbitrary laws contrary to the people's will to remain in power. For instance, autocrats could influence the amendment of the constitutions and electoral rules to their advantage (Burcher and Bisarya, 2017). Nevertheless, an assertive and strong judiciary constrains the lawlessness of the political branches and promotes an enduring electoral democracy with free and fair elections.

Conversely, Ellett (2020) suggested that African courts play a complex role in both supporting and undermining democracy under varying conditions. In certain circumstances, the courts have ruled in favor of disadvantaged groups in some cases requiring government provision of public services. As noted by Ellett, although "these cases may not be obviously politically significant, but to the degree that the court is able to pressure the government to realize these aspirational rights, the greater the likelihood of a citizenry poised for critical engagement in democratic governance" (2020, 149-150), Additionally, in election litigations involving a president or top government officials in Africa, while some African courts have ruled against incumbents (Ellett, 2014), there is also evidence which suggests that the judiciary in Africa usually rules in favor of incumbents and engage in corrupt and fraudulent practices that hinder the promotion of electoral democracy (Kaaba, 2015).

Another theory on the influence of the judiciary in shielding electoral democratic values states that the public is the custodial of judicial power. When the public supports the decisions and integrity of the courts, the executive's attack or disrespect of court decisions could result in public punishment during the election, such as voting them out of office (Bartels and Krammon, 2020). Consequently, the critical roles of the courts and the cases where the courts stood against the unconstitutional actions of the executives increase the likelihood of poor citizens' trust in the courts and their enthusiasm to participate in the democratic process.

Electoral Democracy, Income Inequality, and Judicial Independence

A strong, independent judiciary moderates the adverse effects of income inequality on electoral democracy, thereby positively enhancing the participation of poor and disadvantaged groups in the electoral process. When the less privileged trust the independence of the judiciary and its ability to sustain electoral integrity, they are more likely to be convinced and enthusiastic about participating in the electoral democratic process (Bartels and Krammon, 2020; Ellett, 2020). In essence, the level of judicial autonomy in a country determines the extent to which income inequality affects the likelihood of poor citizens engaging in the political process. High judicial independence in countries would moderate the effect of income inequality on voters' participation in the political process.

Based on the theories concerning the vital role of judicial independence in checking the activities of the elite political actors and protecting minority rights, this research hypothesizes the following:

H₂: Judicial independence is positively associated with electoral democracy.

H₃: The influence of income inequality on electoral democracy is conditioned on the levels of judicial independence.

In sum, at low levels of judicial independence, income inequality has a negative effect on electoral democracy while at higher levels of judicial independence, income inequality increases the level of electoral democracy.

Research Methodology and Design

We use a panel data regression covering 48 African countries from 1995 to 2010 to test the

hypotheses on the influence of income inequality on electoral democracy and how judicial independence moderates the effect. The timeframe is practical for studying the impact of income inequality on electoral democracy, considering that most African countries underwent democratic reforms and adopted multiparty electoral systems, particularly within the 1990s and 2000s (Lynch and Crawford, 2013). This research's sample does not cover all African countries. Countries without data on income inequality were not included in the sample. Although this sample has missing data for the dependent and some control variables, more than 80% of the observations are available. Appendix A lists all countries with incomplete data on the GINI Coefficient. Table 1 entails summary statistics for the variables.

Table 1: Summary Statistics

Variables	N	Mean	St. Dev.	Min	Max
Income Inequality (log GINI Disposable)	660	43.10	6.67	30.20	62.10
Electoral Democracy (log)	768	0.42	0.19	0.09	0.84
Judicial Independence	768	0.37	0.20	0.02	0.88
Economic Growth	752	0.03	0.10	-0.55	1.01
Equal Distribution of Resources	768	0.44	0.20	0.07	0.92
Military Rule	768	0.17	0.37	0	1
Civil War	576	0.16	0.29	0	1

Source: Self-generated by the Authors

Dependent Variable

Electoral democracy is conceptualized as the freedom and autonomy of all citizens, regardless of their income, to participate in a country's electoral and political processes, characterized by competitive and fair elections with political powers not dominated by the wealthy (Mechkova et al., 2017). The data on the level of electoral democracy are from the Varieties of Democratic Project (V-Dem). The V-Dem codes the Electoral Democracy Index on a 0–1 scale, where 1 represents the highest level of electoral democracy and 0 represents the lowest level of electoral democracy.

Independent Variables

Income Inequality data originate from the Standardized World Income Inequality Database (SWIID) by Solt (2020). The SWIID offers data on income inequality in a comparable format for over 150 countries (African and non-African) over time (Stockemer and Scruggs, 2012). This study uses the household disposable income in a particular year (post-tax, post-transfer). Gini disposable income is used because, as observed by Stockemer and Scruggs (2012, 767), income inequality impacts participation in electoral democracy through the net disposable income available to people rather than the gross Gini coefficient from the market income. The SWIID data Gini coefficient index is on a scale of 0 to 100, with 0 representing complete equality, while 100 represents extreme income inequality.

One limitation of the SWIID data is missing data for some countries. The following countries were omitted from the analysis as a result of having few or no measures of income

inequality within the study timeframe (1995-2010): Eswatini, Libya, Eritrea, Somalia, Equatorial Guinea, and South Sudan. Each country sample used has at least six years of measures of income inequality. Despite the SWIID missing data, it has a wider coverage, which allows for the comparability of countries over time (Solt, 2020).

Judicial Independence is the moderating variable, capturing the latent de facto judicial independence. The latent de facto judicial independence is conceptualized as judges having the power and autonomy to make decisions that constrain the executive and have their choices implemented without fear of retaliation from the government (Linzer and Staton, 2015). The data are from Linzer and Staton (2015) and are estimates using measures of de facto judicial independence indicators from previous sources to generate a measure of latent judicial independence. Linzer and Staton utilized other determinants and measures of judicial independence from earlier studies (including Gwartney and Lawson, 2007; Feld and Voigt, 2003; Howard and Carey, 2004) to develop the latent measure of judicial independence (Linzer and Staton 2015).

This variable has construct validity because the measurement captures the concept of judicial independence adopted in this study as the ability of judges to make decisions without fear of retribution from political actors freely. The measure is further strengthened through its incorporation of multiple indicators of judicial independence, as identified in other studies (e.g., Crabfree and Fariss, 2015). This approach also enhanced the external validity of the variable, as the measure obtained in one country can be compared to another (Linzer and Staton, 2015).

In discussing the challenges of generating the judicial independence measure, Linzer and Staton (2015) note that although the researchers developing the data had general guidance on the meaning of judicial independence, concerns arose about possible deviations from the established standards. Furthermore, the Linzer and Staton measure has been criticized for being weakened by the inclusion of measures that do not capture judicial independence alone, such as executive constraint (Melton and Ginsburg, 2014). In addition, the measure suffers from missing data, which the authors imputed using numbers closer to the missing data. Notwithstanding these shortcomings, the incorporation of several sources and indicators in the Linzer and Staton data generates a cross-sectional, comparable measure of judicial independence over many years, thereby capturing the conceptual definition of judicial independence as used in this paper. The data represent the judicial independence of a country's highest court, which is a continuous variable ranging from 0 to 1, where higher values indicate a greater degree of judicial independence. As theorized in existing literature, we expect judicial independence to have a positive effect on electoral democracy and higher levels of judicial independence to have a greater influence in mitigating the effect of income inequality on electoral democracy.

Control Variables

The first control variable is *Economic Growth*, represented as the GDP per capita growth rate, to capture the effect of economic development on electoral democracy. Existing literature has shown that a country's economic wealth or development is a key factor that impacts the stability or instability of democracy (Gibler and Randazzo, 2011; Easterly and Levine, 1997). The data for the variable are from the Quality of Government data for 2020. The second control variable is *Civil War*, which measures whether there has been at least one internal civil war with not less than 1,000 deaths each year. The data are drawn from V-Dem, coded as 1 for the presence of civil war and 0 for its absence up to 2006. The expectation is that civil war would decrease

electoral democracy. Equal distribution of resources is included as a control to measure the impact of an equitable allocation of basic needs such as food, housing, and healthcare services in a country. Unequal distribution of basic goods and services is expected to negatively impact people's political participation. The data are from V-Dem and ranges from 0 to 1, with a higher index portraying greater distribution and 0 otherwise. Finally, the dummy variable, *Military Rule*, is included to measure whether a country has experienced military rule. Data for this variable are from the Quality of Government variable on regime types, which are re-coded as 1 for "Military" and 0 for "Not Military." The expectation is that military rule negatively impacts democratic ideals (Gibler and Randazzo, 2011).

Estimation Method

Three panel data OLS regression models are used to test the hypotheses. The first model examines the effect of income inequality on electoral democracy, including some control variables that impact the relationship between income inequality and electoral democracy. The second model examines the impact of judicial independence on electoral democracy. The third model investigates whether judicial independence moderates the relationship between income inequality and electoral democracy. The general OLS regression model specifications for the regressions are as follows:

$$ElecDem = \beta_0 + \beta_1 GINI + \beta_2 Control + \varepsilon$$
 (1)

$$ElecDem = \beta_0 + \beta_1 GINI + \beta_2 Jud + \beta_3 Control + \varepsilon$$
 (2)

ElecDem =
$$\beta_0 + \beta_1 GINI + \beta_2 Jud + \beta_3 GINI* Jud + \beta_4 Control + \varepsilon$$
 (3)

In Equation 1, *ElecDem* is the dependent variable, representing electoral democracy. *GINI* (income inequality) is the main independent variable, while *Control* represents the control variables. β_0 represents the intercept; β_1 and β_2 represent the coefficients of the effects of the independent and control variables on the dependent variable, respectively, while ε represents the error term. The symbols in equations (2) and (3) mean the same as equation (1), with *Jud* representing judicial independence, while β_2 represents the coefficients of the association of judicial independence and income inequality. β_3 *GINI* Jud* represents the interaction term showing the moderating effect of judicial independence.

Results and Analysis

The results of the models showing the relationship between income inequality and electoral democracy, as well as judicial independence, from 1995 to 2010, are represented in Tables 2 and 3. Table 2 entails the regression results for Africa, while Table 3 is the regression output for the regions of North Africa and Africa Spouth of the Sahara. From Table 2, Model 1, we find that income inequality is positively associated with electoral democracy, contrary to expectations. Also, as speculated, military rule and equal distribution of resources have statistically significant negative and positive effects, respectively. In Model 2, judicial independence was included and displayed a positive effect. Nonetheless, the interaction term is not significant in Model 3. This means that the effect of income inequality on electoral democracy is not conditional on the level of judicial independence.

Table 2: Effects of Income Inequality and Judicial Independence on Electoral Democracy in Africa, 1995-2010 (OLS Regression).

	Dependent variable: Electoral Democracy (log)			
	(1)	(2)	(3)	
Income Inequality (log GINI)	0.50***	-0.10	0.20	
	(0.13)	(0.12)	(0.30)	
Judicial Independence		0.62***	1.52*	
		(0.05)	(0.84)	
GDP Growth	0.10	0.01	0.02	
	(0.11)	(0.10)	(0.10)	
Military Rule	-0.24***	-0.13***	-0.13***	
	(0.03)	(0.02)	(0.02)	
Civil War	-0.05	-0.04	-0.04	
	(0.04)	(0.03)	(0.03)	
Equal Distribution of Resources	0.29^{***}	0.01	0.01	
	(0.04)	(0.04)	(0.04)	
GINI: Judicial Independence			-0.54	
			(0.50)	
Constant	-1.33***	-0.47**	-0.96*	
	(0.21)	(0.19)	(0.49)	
Observations	461	461	461	
Adjusted R ²	0.29	0.49	0.50	

Note: *p < 0.1; **p < 0.05; ***p < 0.01. Models are estimated with Ordinary Least Squares regression (OLS) from 1995 to 2010.

Source: Self-generated by the Authors

The results for African countries are grouped into North Africa and Africa South of the Sahara (erroneously cartographically referred to "sub-Sahara Africa") in Table 2 to account for regional variations in political, economic, cultural and legal frameworks across the two regions. Models 1 to 3 represent the outcome from North Africa, while Models 4 to 6 represent the outcome from Africa South of the Sahara. Models 1 and 4 are the regressions without judicial independence to test hypothesis 1; Models 2 and 4 include judicial independence variables to test Hypothesis 2, while Models 3 and 6 examine the interaction effects.

The results of the regression suggest that the relationships among income inequality, judicial independence, and electoral democracy in Africa are multifaceted and variy from region to region. Contrary to expectations, Models 1 and 4 display a positive association between income inequality and electoral democracy. This result suggests that an increase in income inequality increases people's participation in the political process. The result also shows that military rule increases political involvement in North Africa and has the opposite effect in Africa South of the Sahara compared to the absence of military rule. Also, as expected, civil war

reduces political participation in both regions compared to the absence of civil war. Contrary to expectations, the equal distribution of resources displayed statistically significant negative and positive results in North and Africa South of the Sahara, respectively. But, GDP growth is not statistically significant.

Table 3: Effects of Income Inequality and Judicial Independence on Electoral Democracy in North Africa and Africa South of the Sahara, 1995- 2010 (OLS Regression).

Dependent variable: Electoral Democracy (log)

	North Africa			Sub-Sahara Africa		
	(1)	(2)	(3)	(4)	(5)	(6)
Income Inequality (log GINI)	2.67***	1.16*	-6.05***	0.30**	-0.38***	0.31
	(0.70)	(0.58)	(2.21)	(0.12)	(0.10)	(0.27)
Judicial Independence		1.66***	-25.81***	•	0.71***	2.74***
		(0.28)	(8.17)		(0.04)	(0.75)
GDP Growth	0.06	0.14	0.11	0.08	-0.03	-0.03
	(0.12)	,	(0.08)	(0.11)	(0.08)	(0.08)
Military Rule	0.44***	0.36***	0.17^{**}	-0.28***	-0.17***	-0.17***
	(0.05)	(0.04)	(0.07)	(0.03)	(0.02)	(0.02)
Civil War	-0.08***	-0.06***	-0.01	-0.08**	-0.08***	-0.08***
	(0.02)	` /	(0.02)	(0.04)	` /	(0.03)
Equal Distribution of Resources	-0.25***	0.36***	0.34***	0.31***	-0.11***	-0.14***
	(0.04)	(0.11)	(0.10)	(0.04)	(0.04)	(0.04)
GINI: Judicial Independence			17.17***			-1.22***
			(5.11)			(0.45)
Constant	-4.82***	· -3.30***	8.24**	-0.98***	0.03	-1.10**
	(1.11)	(0.86)	(3.52)	(0.20)	(0.17)	(0.45)
Observations	48	48	48	413	413	413
Adjusted R ²	0.83	0.91	0.93	0.37	0.63	0.64

Note: p < 0.1; p < 0.05; p < 0.05; p < 0.01. Models are estimated with Ordinary Least Squares regression (OLS) from 1995 to 2010.

Source: Self-generated by the Authors

In M<odels 2 and 5, judicial independence was included. As hypothesized, judicial independence yielded statistically significant results in the positive direction for both North Africa and Africa South of the Sahara. This confirms Hypothesis 2: i.e. an increase in judicial independence is associated with increased electoral democracy.

The effects of the other variables in Models 2 and 5 are similar to those of Models 1 and 4. Conversely, the equal distribution of resources displayed statistically significant and positive effects for North Africa and negative effects in Africa South of the Sahara.

Notwithstanding the results, these models misrepresent the actual effect of income inequality on electoral democracy; indeed, as our theory in this paper suggests there is a conditional effect. The inclusion of interaction terms provides a comprehensive evaluation of the impact of the variables. Models 3 and 6 examine whether the effect of income inequality on electoral democracy is contingent on the influence of judicial independence levels. The theory suggests that judicial independence mitigates the impact of income inequality on electoral democracy. The expectation is that countries with high levels of judicial independence are likely to experience greater political participation compared to countries with low levels of judicial independence. In Models 3 and 6, the interaction terms show a positive and a negative significant coefficient for North and Africa South of the Sahara, respectively. Nevertheless, interpreting the coefficient of the interaction term without a graphical representation of the marginal effect may be misleading and obfuscate the average impact (Voight and Gutmann, 2013). Hence, the real effect of the interaction terms is highlighted through a graphical depiction of the marginal effects of income inequality on electoral democracy conditioned on the level of judicial independence, as shown in the marginal effect graphs below.

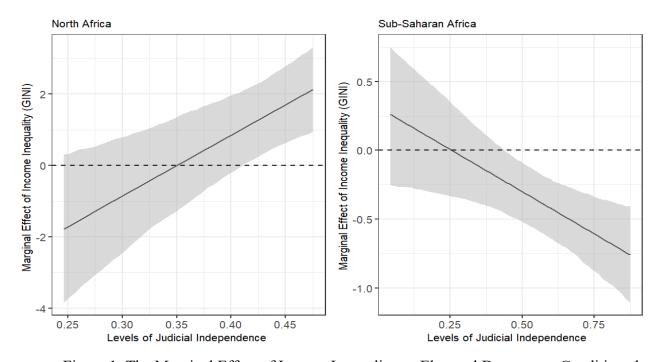


Figure 1: The Marginal Effect of Income Inequality on Electoral Democracy Conditioned on Judicial Independence in North and Africa South of the Sahara Countries Source: Self-generated by the Authors

Figure 1 shows the average marginal effect of income inequality on various levels of judicial independence in North Africa and Africa South of the Sahara. In the figure, the marginal effect is insignificant at low to moderate levels of judicial independence in both regions This means that at low to moderate levels of judicial independence, income inequality does not alter the level of electoral democracy. But, at higher levels of judicial independence, the relationship is positive and statistically significant in North Africa, but negative in Africa South of the Sahara. This finding suggests that in North Africa, income inequality is associated with increased

political participation in countries with higher levels of judicial independence. In contrast, the reverse is true in Africa South of the Sahara. The possible reasons for this contradictory outcome are explained in the discussion section that follows.

Discussion

The results of the analysis provide evidence to show that the effect of income inequality in Africa is multifaceted. The effect depends on various political, economic, social, and legal factors, which differ from country to country. The analysis for this research reveals that contrary to expectations, income inequality increases electoral democracy in Africa. Additionally, in support of Hypothesis 2, the results demonstrate that judicial independence is positively associated with electoral democracy. Most importantly, the results support Hypothesis 3 on the conditional effect of judicial independence. Nevertheless, the conditional effect of judicial independence differs between North Africa and Africa South of the Sahara. The effect for North Africa aligns with the expectations of this research on the importance of high judicial independence, contrary to the findings for Africa South of the Sahara.

One plausible explanation for the positive effect in North Africa is that the countries in this region studied (Algeria, Egypt, Morocco, and Tunisia) have experienced prolonged periods of authoritarian regimes that suppressed democratic ideals, despite the democratic transition of many African countries (Cavatorta, 2012). For instance, Morocco had an authoritarian monarchy, and Tunisia was under the dictatorial leadership of Zine El Abidine Ben Ali from 1987 to 2011. When the level of judicial independence is high, with the courts not influenced by external sources, citizens' participation in politics increases because the courts are seen as the last hope for citizens in restoring democracy. In addition, with an authoritarian government's deprivation of democratic ideals, citizens would engage in political activism and protests as a means of overturning the status quo, achieving liberation from authoritarian leadership, and switching to a democratic government (Sika, 2017). Consequently, where courts exhibit high levels of judicial independence in authoritarian regimes, marginalized and less privileged citizens would engage actively in political activities, knowing that the courts would protect the rights of the citizens.

Conversely, for Africa South of the Sahara, Fig. 1 illustrates that the effects of income inequality under high levels of judicial independence have a negative impact on electoral democracy. A likely reason for the adverse effects in is the lack of trust of citizens in the judiciary in electoral disputes. In the 1990s, most countries in the region embraced the "third wave of democratization" by instituting multiparty elections and democratic reforms (Fombad, 2022). These reforms however have not been stable, with electoral fraud associated with elections in some countries, followed by challenges to the election results in courts. In highprofile electoral disputes involving the re-elections of incumbent presidents and other top politicians, courts usually rule in favor of current officeholders and their parties (Kaaba, 2015; Fombad, 2022). While the level of judicial independence may be high in some African countries, in election matters, Fombad points out that "confidence in the judiciary has been eroded largely due to its vulnerability to political manipulation and corruption and its tendency to defer to the government in power, especially in cases of electoral disputes" (2022, 16). For instance, despite widespread allegations of fraud and irregularities in presidential elections in some African countries, such as Zambia (2016) and Nigeria (2023), the Supreme Courts in these countries ruled in favor of incumbent presidents or their party. In the 2016 Zambian presidential election,

President Lungu defeated his opponent, Hakainde Hichilema. Hakainde and his party challenged the election result in court, alleging fraud and irregularities. The court declined to hear the case on procedural grounds, citing a lack of jurisdiction due to the lapse of time (Goldring and Wahman, 2016).

A similar incident happened in Nigeria, where the results of the 2023 presidential election were challenged in court for rigging and malpractices by the losers of the election (Peter Obi and Atiku Abubakar) against the winner, Bola Tinubu, who was a key figure in the then-current president's party. The Nigerian Supreme Court dismissed the cases for lack of merit (Fasakin, 2023). Scholars allege that the Nigerian judiciary is compromised in electoral matters, being "not independent of political influences, including their appointment by politicians" (Fasakin, 2023, 105; see also Salihu and Gholami, 2018). Corruption allegation against the judiciary is also a challenge in other countries in Africa South of the Sahara (Masengu, 2017; Ellett, 2015).

With the judiciary ruling against the will of the people, citizens are likely to become disillusioned and alienated from the political process, resulting in decreased political participation in Africa South of the Sahara. Notwithstanding the alleged corruption in some African courts, the judiciaries in certain countries have asserted their independence by ruling against the political elite. For example, in presidential elections in Kenya (2017) and Malawi (2014 and 2019), the Supreme Courts in those countries exercised their judicial independence by ruling against the incumbents (Asiedu, 2025). Future research using case studies of countries would provide additional insight on how the impact of income inequality on electoral democracy is contingent on the levels of judicial independence in a country.

Robustness Check

To ensure the robustness of this study, we use the market GINI income inequality coefficient, which measures income inequality before tax and transfer, as opposed to the GINI Disposable, which in turn measures after tax and transfer. The results of the analysis are displayed in Appendix B. The results show a similar direction and effect for all variables. Future studies should consider different categories of income earners (i.e., the top 20 percent and bottom 20 percent) as a proxy for income inequality as discussed in the conclusion section.

Conclusion

This study analyzes the effect of income inequality on electoral democracy and the moderating influence of an independent judiciary on the relationship between income inequality and electoral democracy, utilizing panel data OLS regression for the period 1995-2010 across 48 African countries in North Africa Africa South of the Sahara. This study finds that income inequality increases electoral democracy in Africa (both regions). Additionally, the effect of income inequality on electoral democracy is contingent upon the level of judicial independence. In countries with low to moderate levels of judicial independence, the effect of income inequality on electoral democracy is not statistically significant. Nonetheless, at higher levels of judicial independence, the conditional effect varies depending on the region. In North Africa, income inequality is associated with increased electoral democracy in countries with higher levels of judicial independence, whereas in Africa South of the Sahara, the reverse is true. The findings are also robust to alternative measures of income inequality.

One main limitation of this study is the missing data on certain variables. Nevertheless,

this study consists of over 80% of the data in the sample. Future research should explore the use of alternative measures of income inequality that capture the income shares of the top 20 percent and bottom 20 percent of citizens in Africa. This approach would provide insight into how the status of these categories of income earners impacts their behavior in political participation, since the GINI measure is an aggregate measure (Deininger and Squire, 1996). Furthermore, a more thorough investigation could examine any potential bias resulting from the reverse causation of electoral democracy influencing income inequality, using an instrumental variable in the statistical analysis (Acheampong et al., 2023). Finally, future research should investigate the specific impact of the associations among these variables, particularly in different countries, through case studies. While the statistical analysis may capture the general impact of income inequality on electoral democracy and the conditional effect of judicial independence, case study provides an in-depth examination of whether the findings of the statistical analysis are present within specific countries (Goertz and Haggard, 2021).

Taken together, this research highlights the importance of policymakers enacting policies that promote equality of opportunity and income, while also ensuring judicial independence to safeguard the electoral rights of the people. Considering the regional differences in the impact of income inequality, governments in African countries should take steps to promote high levels of judicial independence. The more independent the judiciary is in rendering impartial decisions that promote fair elections, protect the rights of marginalized groups, and curb unlawful electoral manipulations by political elites, the more likely poor citizens are to participate in electoral democratic processes. At the same time, the selection, promotion, and remuneration of judges should be independent of the political branches to protect the court from undue influence in its determination of election disputes without fear of retaliation from the executive.

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Appendix A: African Countries with Incomplete Income Inequality Data

Income Inequality (GINI Coefficient)				
African Countries	Years with data	Years with missing data		
Angola	2000-2009	1995-1999; 2010		
Benin	2002-2010	1995-2001		
Cameroon	1996-2010	1995		
Cape Verde	1999-2010	1995-1998		
Central African Rep.	1995-2008	2009-2010		
Chad	2005-2010	1995-2004		
Comoros	2004-2010	1995-2003		
Congo	2005-2010	1995-2004		
Demo. Rep. of the Congo	2004-2010	1995-2003		
Djibouti	1996-2010	1995		
Gabon	2005-2010	1995-2004		
Liberia	2005-2010	1995-2004		
Mali	1995-2009	2010		
Mozambique	1996-2010	1995		
Sao Tome and Principe	2000-2010	1995-1999		
Seychelles	2006-2010	1995-2005		
Sudan	1995-2009	2010		
Togo	2005-2010	1995-2004		

Appendix B: Robustness Check

The Effects of Income Inequality (GINI Market) and Judicial Independence on Electoral Democracy in Africa from 1995 – 2010 (OLS Regression).

Dependent variable: Electoral Democracy (log)

(1) 0.44***	(2) -0.17	(3)
	-0.17	0.10
	0.17	0.12
(0.12)	(0.11)	(0.30)
	0.63***	1.51*
	(0.05)	(0.85)
0.11	0.01	0.02
(0.11)	(0.10)	(0.10)
-0.24***	-0.13***	-0.13***
(0.03)	(0.02)	(0.02)
-0.05	-0.05	-0.04
(0.04)	(0.03)	(0.03)
0.30***	0.01	0.004
(0.04)	(0.04)	(0.04)
		-0.52
		(0.50)
-1.26***	-0.36*	-0.85*
(0.21)	(0.19)	(0.50)
461	461	461
0.28	0.50	0.50
	(0.11) -0.24*** (0.03) -0.05 (0.04) 0.30*** (0.04) -1.26*** (0.21)	0.63*** (0.05) 0.11 0.01 (0.11) (0.10) -0.24*** -0.13*** (0.03) (0.02) -0.05 -0.05 (0.04) (0.03) 0.30*** 0.01 (0.04) (0.04) -1.26*** -0.36* (0.21) (0.19)

Note: *p < 0.1; **p < 0.05; ***p < 0.01. Models are estimated with Ordinary Least Squares (OLS) regression, 1995-2010.