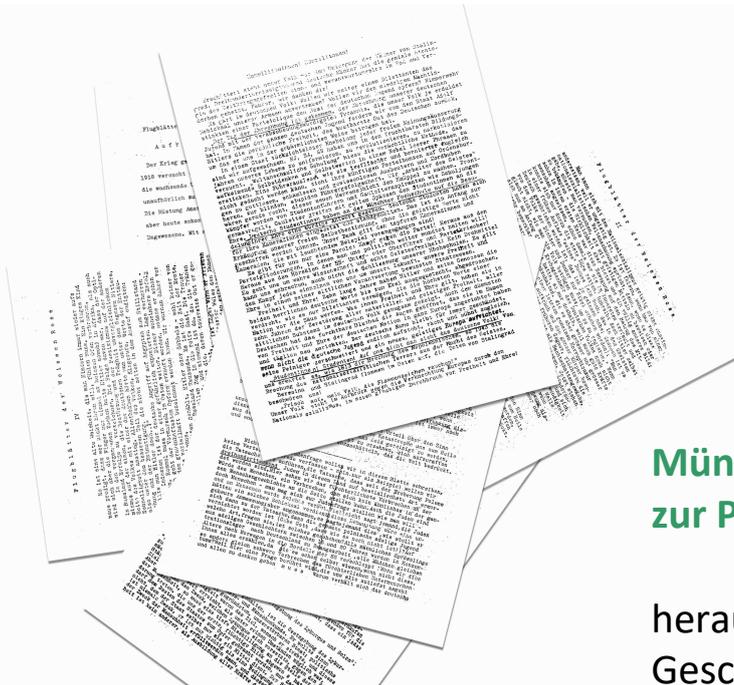Vorbach, Johannes Laurin:

Mistrust as the Origin of Dissatisfaction with Democracy? An Empirical Case Study of Ghana

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Abstract

The colonization of Africa has had long-lasting effects on the continent that often persist until today. Many studies overlook the persistence effects of this period on socio-political attitudes among African citizens. The goal of this empirical study is to add to the existing scientific literature and investigate whether slavery has had a negative effect on today's level of political trust and - if so - whether political mistrust has led to dissatisfaction with democracy and can therefore be coined the origin of it. This paper builds upon the findings and methodology of Nunn and Wantchekon (2011) using an instrumental variable approach for causal inference while solely focusing on Ghana as an upper bound case study. The study concludes that a higher slave intensity neither significantly alters the level of overall political trust, nor has political mistrust led to dissatisfaction with democracy among Ghanaians. Therefore, both postulated hypotheses are rejected, yet the external validity of these results with regard to other African countries is questionable.

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1 Introduction: The Political Heritage of Ghana

The region of what is nowadays known as the Republic of Ghana has historically been under the influence of various powers. Interest in the area has been rising ever since the Portuguese set foot on the land in 1471, as they found gold and other precious raw materials in the region subsequently naming it *da mina*. Other colonizing powers, such as Denmark, Sweden, the Netherlands and eventually England, sought after the land in the decades and centuries to come in order to profit from its riches as well. Simultaneously, the colonizers established a system of organized slave trade from Africa to the New World, exploiting the indigenous people's ethnic tensions for easier deportation and prevention of uprisings. Especially today's region of Ghana suffered under a high slave intensity since major ports that were used for the Trans-Atlantic slave trade are located nearby.[1] In 1874, the United Kingdom established the Crown Colony *Gold Coast*, highlighting the peak of imperialism and colonization of the region and solidifying its political influence on the region for the following decades. Ghana was the first country to gain independence from the imperial powers on March 6th, 1956. Although the freedom fighter and first president Kwarme Nkrumah managed to establish a democratic system, it did not last. Between the years 1966 and 1981, a multitude of regime shifts mainly caused by military coups occurred in Ghana. Jerry Rawlings, who set up a strong one-party government under military rule, was the one to open up the country for change in 1992 when he allowed Ghanaians to decide in a free referendum whether they want to adopt a new constitution reinstating a democratic system. The thereby established Republic of Ghana has proven stable and persists until today.

Considering the centuries of colonization and instability of Africa, the effects of this period can still be seen today. However, little research exists on the impact of slavery on socio-political attitudes among African citizens and its persistence over time. In their empirical study, Nunn and Wantchekon (2011) investigate whether the historical slave intensity, measured by the number of slaves taken from an ethnic groups per square kilometer, has an effect on the level of interpersonal trust and trust in local institutions in Sub-Saharan Africa today. Their theory is mostly based on qualitative evidence and argues that slave exploitation established an environment of mistrust between and within ethnic groups, as they started to betray one another to gain comparative advantages with the colonizing power. Consequently, a higher slave intensity is expected to lead to lower levels of interpersonal trust for ethnic groups, which holds true empirically as the findings are highly statistically significant.

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[1]Consult Nunn (2008) for further information.

Given the frequent regime shifts in the political history of Ghana, it is not surprising that Ghanaians exhibit very low levels of regime support today, as can be seen by examining the level of political trust and satisfaction with democracy. Both variables are strongly correlated with one another, yet it is unclear which one caused the other or if both have a different origin. It is the goal of this study to address this question and contribute to the scientific literature surrounding the persistence effects of colonization on socio-political attitudes. In doing so, I will build upon the methodology and results of Nunn and Wantchekon (2011) and enhance their findings. Ghana is used as a case study since it clearly represents an upper bound case for Africa considering its history and potential effects are expected to be most easily identifiable here. The essential premise of this paper is that colonization, specifically slavery, led to political mistrust which in turn caused a decrease in the level of satisfaction with democracy in Ghana.

In order to answer the research question, I will first review related studies to elaborate the significance of political trust and satisfaction with democracy, identify factors influencing both variables, and derive the hypotheses which will be tested empirically. Subsequently, my data sources will be introduced alongside the construction process of key variables and descriptive statistics. After explaining the instrumental variables approach that I employ for causal inference, the results as well as their robustness checks are presented. The bottom line is that this empirical study finds no statistically significant effects of the intensity of slavery on the level of overall political trust or political trust on satisfaction with democracy among Ghanaians. The findings suggest, however, that there exist heterogeneous effects of slavery on different political institutions and a cross-country study with more observations might change the results entirely.

2   Related Studies and Theoretical Framework

2.1   Importance of Satisfaction with Democracy and Political Trust

It is crucial to first understand the social and political relevance of citizens' attitudes towards political institutions. Many studies on political behavior and public opinion focus on the topic of satisfaction with democracy, making it a commonly studied subject in political science (Singh and Mayne, 2023). Over the decades, a consensus has been reached among researchers that the standard survey question measuring the level of satisfaction with democracy of a respondent is an adequate indicator for political support (Norris, 1999; Easton, 1965). This is the main reason why the variable has frequently been resorted to when assessing the legitimacy of a political regime (see, e. g., Anderson et al., 2005; Claassen and Magalhães, 2022; van Ham et al., 2017). The concept of political trust is often regarded as the confidence citizens exhibit towards their coun-

try's governmental institutions based on their performance perception (Stokes, 1962; Hetherington, 2005). As trust can be considered an expression of regime legitimacy, it is closely related to it and thereby also to satisfaction with democracy (Newton et al., 2018).

The levels of satisfaction with democracy and political trust play crucial roles in political systems in many regards. As mentioned before, satisfaction with democracy is believed to influence citizens' support for a political system. Dissatisfied individuals are expected to be more likely to support non-democratic governments and challenge or weaken democratic rule if a considerable number of citizens share this attitude (Singh and Mayne, 2023). Empirical research regarding this topic is scarce and the presented evidence is not clear: While there seems to be a connection between satisfaction with democracy and support for democratic governments on an individual level (Sarsfield and Echegaray, 2006; Walker and Kehoe, 2013), it fluctuates over time (Campbell, 2015) and is rather weak (Klingemann, 2014; Linde and Ekman, 2003). In a recent study, Claassen (2020) does not find any evidence to support the aforementioned connection on an aggregate level for societies as a whole. Another field of scholarly interest is vote choice. Some studies have shown that voters supporting anti-mainstream parties tend to be more dissatisfied (see, e. g., Lubbers et al., 2002; Van der Brug et al., 2013; Ramiro, 2016; Arzheimer, 2009), yet the magnitude and significance of this effect heavily depend on contextual factors (Pauwels, 2014; Doerschler and Banaszak, 2007; Doerschler, 2015; Oesch, 2008). Additionally, reverse causality may be at play as well, further complexifying the connection (Rooduijn et al., 2016). Lastly, participation and voter turnout is also an area of active research. Studies present mixed results regarding the propensity to vote of an individual or the collective and its correlation with satisfaction with democracy (see, e. g., Smith et al., 2009; Carreras and Castañeda-Angarita, 2014; Ezrow and Xezonakis, 2016). According to Kostelka and Blais (2018), a positive relationship exists between the two variables and satisfaction with democracy is in fact boosted by voting, not vice versa.

Political trust plays a similar role compared to satisfaction with democracy. Early theories addressing political participation and focusing on the United States argue that distrust might encourage abstention from voting (Stokes, 1962; Finifter, 1970; Almond and Verba, 1963). Yet, this hypothesis was refuted multiple times (see, e. g., Rosenstone and Hansen, 1993; Miller, 1980) giving rise to an altered version stating that political distrust might spark unconventional participation. The mixed evidence that has been found by scholars in this regard demonstrates that the link between political trust and participation changes with different circumstances. Models should therefore address potential confounding variables and include complex interactions between the two variables of interest (Levi and Stoker, 2000). Further insights have been generated on public

opinion. Scholars found that citizens' opinion on policies and politicians is affected by the level of trust they exhibit towards them (see, e. g., Hunter and Leyden, 1995; Karp, 1995; Lowery and Sigelman, 1981). What is heavily impacted by this connection is vote choice for candidates at elections. Many studies have come to the conclusion that distrusting citizens are more likely to vote against the incumbent and support third or independent parties in two-party-systems (see, e. g., Hetherington, 1999; Luks and Citrin, 1997). Another area of research is public compliance with governmental regulations. Tyler (1990) finds that the more trustworthy a person perceives the government, the more likely they are to meet its demands (see also Braithwaite and Levi, 1998). John Scholz came to the same conclusion after conducting a number of studies on this matter using data from telephone surveys and tax returns to investigate how trust heuristics can serve as a cognitive shortcut for compliance (Scholz and Pinney, 1995; Scholz and Lubell, 1998a,b; Scholz, 1998). Most scholars agree that government officials who trust the people they regulate also appear more trustworthy, which in turn evokes compliance among citizens (Levi and Stoker, 2000). Lastly, research has shown that political and social trust are intertwined, yet simultaneity might be at play. While most scholars suggest that trustworthy governments facilitate interpersonal trust and promote cooperation in society, some argue that social trust is the foundation for political trust (see, e. g., Uslaner, 2018; Bjørnskov, 2010; Jackman and Miller, 1998; Brehm and Rahn, 1997; Sztompka, 1998). Either way, many studies empirically validated that spill-over effects exist among different political institutions, layers of government, and between institutions and manifestations of social capital, like social trust (see, e. g., Suh et al., 2012; Muñoz, 2017; Dominioni et al., 2020; Jeong and Han, 2020; Christensen and Lægreid, 2005). Since a higher general trust level comes along with many other benefits, e. g. higher economic growth, less corrupted or criminal behavior, its importance for society cannot be stressed enough (see, e. g., Zak and Knack, 2001; Beugelsdijk et al., 2004).

2.2 Determinants of Satisfaction with Democracy and Political Trust

As elucidated above, the impacts of the levels of satisfaction with democracy and political trust on society are similar in many ways. One will come to a similar conclusion when looking at the determinants of the two variables. The scientific literature offers two prominent approaches to explain origins and determinants of political support and regime legitimacy: the cultural and the institutional one. The cultural theory argues that political support stems from outside the political system meaning that it is exogenous. Values, civic virtues, and political attitudes like trust and satisfaction with democracy are learned behavior and developed through socialization processes earlier in life (Newton, 2001, 2006; Norris, 1999). The premise of the institutional

approach is, by contrast, that citizens' support for the government is based on its performance. Employing a rational choice perspective, citizens subjectively assess the government with regard to the expected personal benefit from implemented policies (Riker, 1990; Petracca, 1991). While the two approaches offer very different perspectives on the topic, they complement one another, as evidence suggests that none of them can be entirely discarded.

Many empirical studies have been conducted to identify the determinants of satisfaction with democracy. Scholars find that citizens who feel well represented or close to political parties or the government exhibit on average higher levels of satisfaction with democracy (see, e. g., Ezrow and Xezonakis, 2011; Ridge, 2022). Furthermore, satisfaction with democracy fluctuates over time and peaks around election time (Higashijima and Kerr, 2018). Kostelka and Blais (2018) identified the act of voting as a key driver of satisfaction with democracy post-election, yet having voted for the winner or loser as well as the institutional setting, e. g. voting system, heavily influence the effect's direction (see, e. g., Anderson and Guillory, 1997). The way governments act is important too. Citizens tend to be more satisfied with democracy when corruption, clientelism, and economic inequality are low (see, e. g., Donovan and Karp, 2017; Širinić et al., 2016; Wagner et al., 2009). Additionally, the current state of the economy has a strong impact on the level of satisfaction. Both macroeconomic figures, e. g. unemployment, inflation etc., and individual perception of retro- and prospective economic performance have been shown to be strong predictors (see, e. g., Anderson and Guillory, 1997; Claassen and Magalhães, 2022; Christmann, 2018). Lastly, socio-demographic factors like age, gender, education etc. matter too (see, e. g., Gabel and Palmer, 1995).

Empirical studies exploring determinants of political trust find other factors to be more important, yet socio-demographic factors remain crucial predictors. Guiso et al. (2003, 2006) conducted two studies across 66 countries and found that age, income, religion, social status, and health show significant correlations with political trust. Additionally, the level of education and the occupation of an individual alongside the satisfaction with governmental services play a role (Christensen and Lægreid, 2005). Across studies and countries, scholars find that the gender of the respondent matters, yet the effect can go in both directions with respect to trust depending on the country at hand (see, e. g., Seligson, 2002; Anderson and Tverdova, 2003). Furthermore, Alesina and La Ferrara (2002) state that community features and individual experiences influence the trust levels of individuals in the US. Moreover, they conclude that belonging to a historically discriminated group, being poor, having had traumatic experiences, and living in a homogeneous or heterogeneous neighborhood mattered in terms of trust levels. Variables reflecting other political attitudes are important too. Both satisfaction with the economy and the government's performance as well

as an individual's stance on the question whether the government is responsible for the individual well-being of its citizens impact the level of trust (Hetherington, 2005; Citrin and Green, 1986). Additionally, political participation and interest exhibit a positive correlation with trust, while media exposure is generally negatively associated with it (Hetherington, 1998).

Empirical studies on this topic usually focus on developed regions, often the European Union, which is also evident in the cited sources in this paper thus far. One possible reason for this might be the availability of data. Therefore, the conclusions drawn from these studies may not be entirely transferable to developing countries or younger democracies like Ghana since the institutional and cultural environments are not necessarily comparable (Sulemana and Issifu, 2015). What is more important, however, is that crucial factors are not overlooked and included in the empirical analysis of this paper. Thus, it is important to also review the little available literature on Ghana and Africa in general, which will be done in the following.

First, it is important to note that the initially mentioned strong correlation between satisfaction with democracy and political trust is also present in the case of Ghana (Sulemana and Issifu, 2015). Gold (2012) tries to identify the factors that influence satisfaction with democracy in Africa on three different levels: nationally, between ethnic groups, and individually. In a comparative study across different sub-Saharan African countries, he finds that perceived economic and political inequality between ethnic groups, individuals' identification with a certain group and their living conditions as well as the inclusiveness of a political system and national well-being are the main determinants of satisfaction with democracy. Moreover, an open economy is associated with more democratically satisfied individuals (Memoli and Quaranta, 2019). These results are supported by the ones of Guldbrandtsen and Skaaning (2010) regarding economic micro and macro factors. Additionally, they conclude that individuals' political interest, their perception of equal treatment under the law, and election quality impact satisfaction with democracy in sub-Saharan Africa. Unsurprisingly, the government's performance plays a key role in satisfaction with democracy as well. More specifically, the way the government is perceived when handling challenges and its competence to provide political goods is crucial (Shechtel, 2010; Bratton and Mattes, 2001). Further micro-level determinants of satisfaction with democracy include individuals' level of education and their perception of crime. While the first one is positively correlated with satisfaction, the latter exhibits a negative association with it (Fernandez and Kuenzi, 2010; Bratton and Mattes, 2001). Moreover, Higashijima and Kerr (2018), who investigate fluctuations of satisfaction with democracy in Africa over time, find that approaching elections boost the level of satisfaction, arguably because the costs of political participation are reduced and benefits of it are increased. This effect might

also be explained through greater cognitive awareness of processes and government performance according to Mattes and Bratton (2007) who conducted an empirical study on twelve sub-Saharan countries. Lastly, majoritarian electoral systems encourage organization around ethnic groups and thus marginalize smaller ones, thereby intensifying the negative effect of fractionalization on satisfaction with democracy and trust in political institutions (Cho, 2012). This is especially a problem in heterogeneous countries. It is to be mentioned that even though all of the aforementioned studies focus on Africa at large, they all incorporate Ghana into their analyses through the employed data which is why their results still apply to it.

Regarding political trust, McCauley and Gyimah-Boadi (2009) investigate Africa more broadly and find that the individual-level importance of religion is statistically significantly associated with trust in political institutions, primarily the president. Religious denomination, according to their results, do not make a difference across groups. Moreover, urbanity, age, gender, education, and living standard strongly correlate with trust. These results are partly supported and enriched for Ghana by the findings of Addai et al. (2013) who additionally conclude that an individual's region of residence, political affiliation, and ethnicity are important correlates regarding both institutional and interpersonal trust. Regarding trust in political institutions, media exposure, perceived corruption, sense of unfair treatment of an ethnic group and life satisfaction play a role as well. Pullbeck et al. (2020) addresses the problem of possible simultaneity between the level of political trust and corruption, concluding that the effect of mistrust leading to higher levels of perceived corruption seems to be very slight. In contrast to the general findings for Africa by McCauley and Gyimah-Boadi (2009), Addai et al. (2013) state that religiosity does not seem to be of importance in Ghana, while religious denomination - especially for Christians - now matters for both interpersonal and political trust. Interestingly, women exhibit lower levels of political trust than men, but the same level of interpersonal trust in neighbors, relatives etc. in Ghana (Sulemana and Issifu, 2015). Lastly, with political trust largely depending on party affiliation in Ghana, Bob-Milliar and Lauterbach (2021) additionally argue that governmental performance, especially factors linked to the economy, influences the generation of trust. The bottom line is that the listed determinants are quite similar to the ones found to be influential in developed countries, however, some additional ones need to be considered specifically for Ghana.

2.3 The Historical Roots of Mistrust and Postulated Hypotheses

As elaborated above, little empirical research has been conducted on the origins of (dis)satisfaction with democracy, especially outside of Europe (Singh and Mayne, 2023). Even though the same can be said about the origins of (mis)trust, the study of Nunn and Wantchekon (2011) has contributed immensely to the scholarly debate focused on Africa. In their paper, the authors investigate whether the intensity of historical exposition to slave raids of ethnic groups has a causal effect on the level of trust individuals exhibit today, specifically interpersonal trust (e.g., neighbors, family) and political trust in local government councilors. Their theory is derived from qualitative historical records stating that the arrival of European colonizers and the beginning of slavery established an environment of mistrust between and within ethnic groups, as they started to betray one another to gain personal advantages. Using data from the Afrobarometer surveys and records about the slave trade, the paper finds that the theorized effect on trust exists and persists until today. As a possible transfer mechanism of these attitudes, Nunn and Wantchekon (2011) employ a culturalist approach similar to the one hypothesized by Guiso et al. (2008) who analyzed the determinants of cultural norms. Although they cannot pinpoint the mechanism exactly and leave the possibility open for the immediate institutional and legal environment to influence individuals' attitudes to some extent, they conclude that most of the differences in modern-day trust levels can be explained through internalized norms and learned behavior from ancestors.[2]

This paper builds on the findings of Nunn and Wantchekon (2011) and enhances them through an empirical analysis that combines the culturalist and institutionalist perspectives. More specifically, the goal is to show that the created environment of mistrust also affects the level of political trust on higher levels of government than the local one. Additionally, I connect the origins of mistrust in Africa to the ones of satisfaction with democracy. This study only focuses on Ghana since it was one of the most strongly colonized regions with regard to slavery and can be used as an upper-bound case, however, the methodology can easily be extended to other parts of sub-Saharan Africa that participated in the Afrobarometer surveys. The following postulated hypotheses are tested empirically:

Hypothesis 1 (H1): *Colonization, specifically slavery, has lowered the level of trust in various political institutions in Ghana which persists until today.*

Hypothesis 2 (H2): *Low political trust levels among Ghanaians have caused low levels of satisfaction with democracy which both persist until today.*

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[2]For further information consult Nunn and Wantchekon (2011).

3   Data Sources and Descriptive Analysis

3.1   Afrobarometer Data

The empirical analysis draws time-series data from rounds two to eight of the Afrobarometer.[3] The Afrobarometer is an independent research network that regularly conducts face-to-face interviews in more than 30 African countries. National partner associations are responsible for collecting high-quality data in their respective country. Interviewers are trained - usually through a five-day-workshop - to ensure familiarity with the questionnaire as well as the best field practices to accurately apply the methodology. The samples of all countries differ each year, however, it is always comprised of 1,200 to 2,400 randomly selected individuals above the age of 18. The Afrobarometer employs a sophisticated area probability sampling approach to ensure equal access to interviews. All samples are proportionally stratified across regions/states/provinces as well as urban and rural areas according to their share in the national population. The probability of excluding certain ethnicities or language groups is hereby minimized. Furthermore, the interviews are carried out in the preferred language of the respondent, usually last one hour in total and all answers are anonymized.

Thereby, an equal chance for every adult citizen to be selected as an interviewee is ensured and the setting is very convenient for individuals with a variety of backgrounds to participate. The sample sizes and chosen sampling design lead to an error margin of +/- 2 to 3 percentage points at a 95% confidence level. The quality of the data is additionally backed up by the fact that the national partners of the Afrobarometer network check their data for any inaccuracies or inconsistencies before the data sets are finalized by data managers.[4] Due to its reliability, the data sets of the Afrobarometer are frequently used in academic works (see, e. g., Nunn and Wantchekon, 2011; Bob-Milliar and Lauterbach, 2021; Sulemana and Issifu, 2015; Addai et al., 2013; Pullbeck et al., 2020).

Similar to the Eurobarometer, the surveys focus on democratic values, political structures and affairs as well as living conditions and closely related topics, such as trust. The variables jointly measure the socio-economic and political sentiments of individuals in the respective country making it a perfect fit for the empirical analysis at hand. The key dependent and independent variables for the empirical analysis are taken from the survey rounds or constructed by it: satisfaction with

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[3]Round 1 (1999) was excluded due to missing key dependent variables and having different answer choices for a large part of the questionnaire. Depending on the utilized variables, some rounds were excluded at times, as not all variables are available in all rounds.

[4]More information about the methodology of the Afrobarometer can be found on the Afrobarometer website: https://www.afrobarometer.org/

democracy and overall political trust [scale].

As it is often the case with survey data, the answer options for non-binary items are grouped into categories. In the case of the Afrobarometer, there are usually three to five categories. The variable satisfaction with democracy is derived from the question *"Overall, how satisfied are you with the way democracy works in Ghana? Are you:"* with the following answer options: Ghana is not a democracy [0], not at all satisfied [1], not very satisfied [2], fairly satisfied [3] and very satisfied [4].[5] Throughout my analysis, I assume equidistance between the categories in order to use satisfaction with democracy as a metric variable. Figure 1 depicts the average level of satisfaction with democracy separately for men and women for each survey round. For all years it holds that women are on average less satisfied with democracy than men. As mentioned before, Sulemana and Issifu (2015) have shown this to be true for the average level of trust in political institutions as well. Furthermore, the level of satisfaction with democracy fluctuates over the years and no trend is evident at first glance disregarding other influencing factors, e. g. political performance, corruption perception etc.
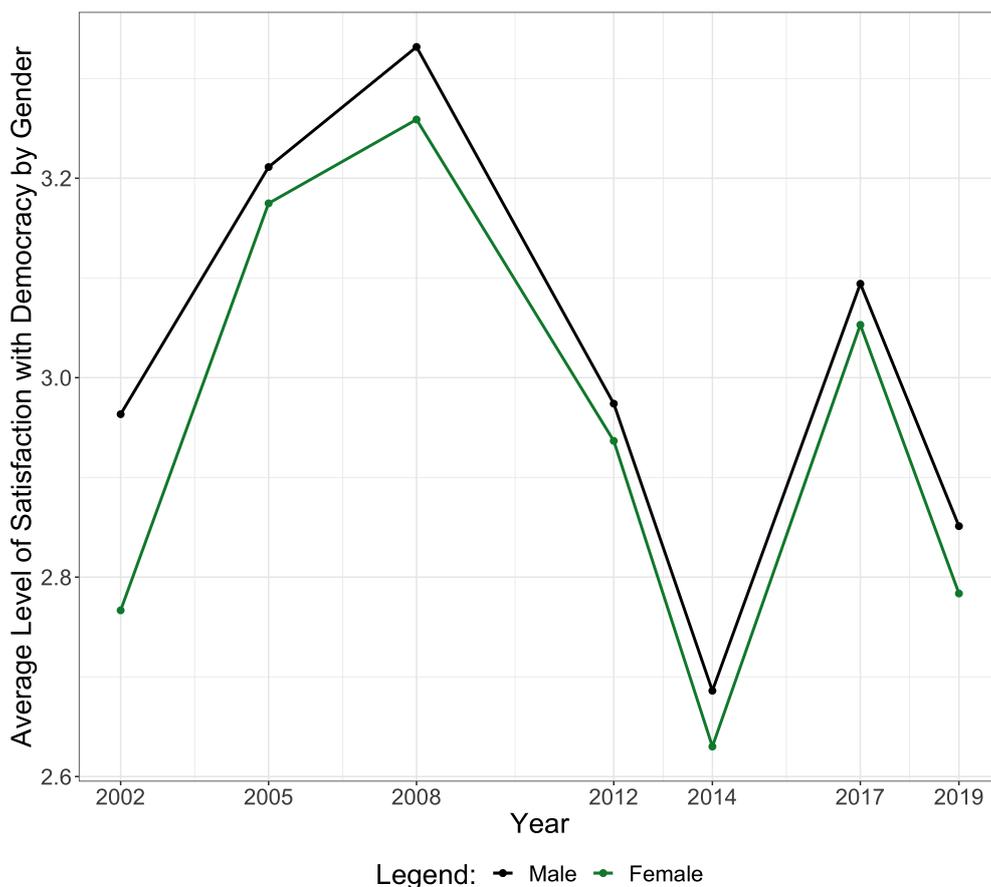
Figure 1: Satisfaction with Democracy in Ghana by Gender

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[5]Respondents also had the possibility to refuse to answer the question or indicate that they do not know how to respond. This is the case for all questions of the Afrobarometer. I coded these answers then as missing, since they do not convey any relevant information.

Figure 2 does not assume satisfaction with democracy to be metric to check for odd patterns that could hint at a violation of the equidistance assumption. It shows the proportion of each category in all responses for each year (Figure 2a) and overall (Figure 2b). Both subfigures demonstrate that close to no one answers that Ghana is not a democracy [0], only in 2002 a non-negligible amount of respondents stated otherwise. This suggests that many interviewees regarded this category as quite extreme and resorted to category [1] instead, which might break the equidistance assumption. Therefore, I decided to add an alternative coding of the variable to the data set where I combine categories [0] and [1]. This version is later used for robustness tests.
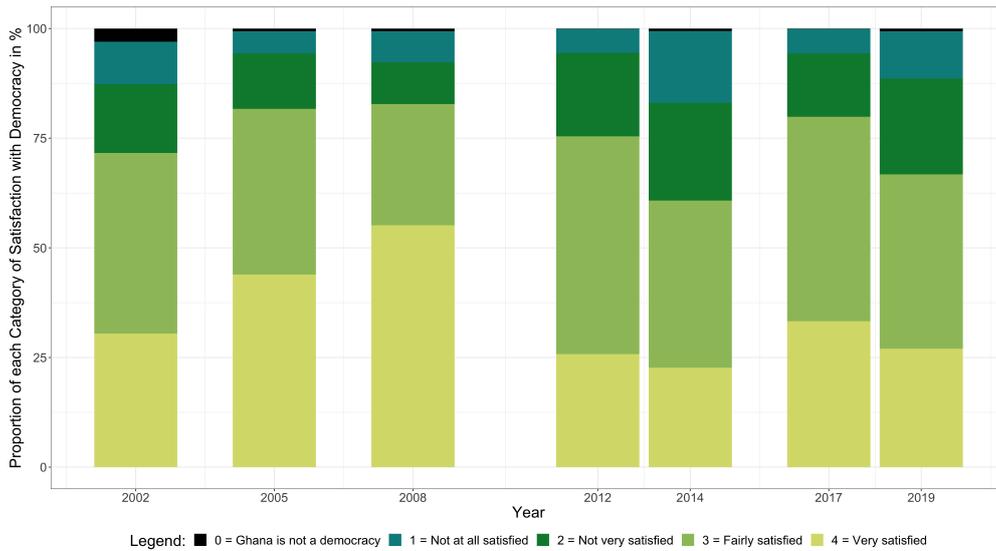
(a) By Year
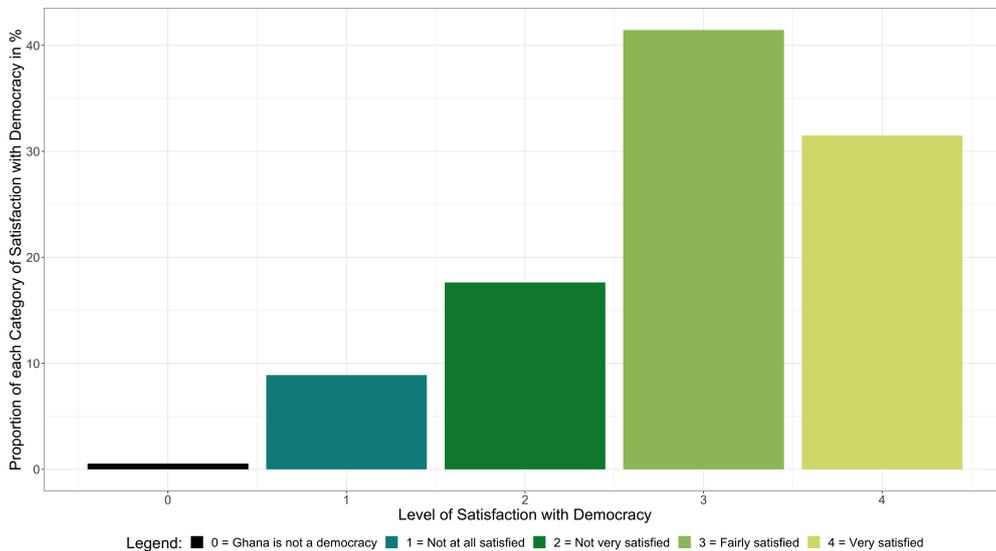
(b) Overall

Figure 2: Satisfaction with Democracy in Ghana by Category

The second key variable, overall political trust [scale], is not derived from a single question of the Afrobarometer survey rounds. A question series asks the respondents *"How much do you trust each of the following, or haven't you heard enough about them to say:"* for different political

institutions with the following answer options: not at all [0], just a little [1], somewhat [2] and a lot [3]. As illustrated in Figure 3, the tax department is often mistrusted while the president and the army are trusted a lot more on average throughout almost all years. Even though there is a wide gap between the average trust levels in different political institutions, they exhibit the same trend pattern.
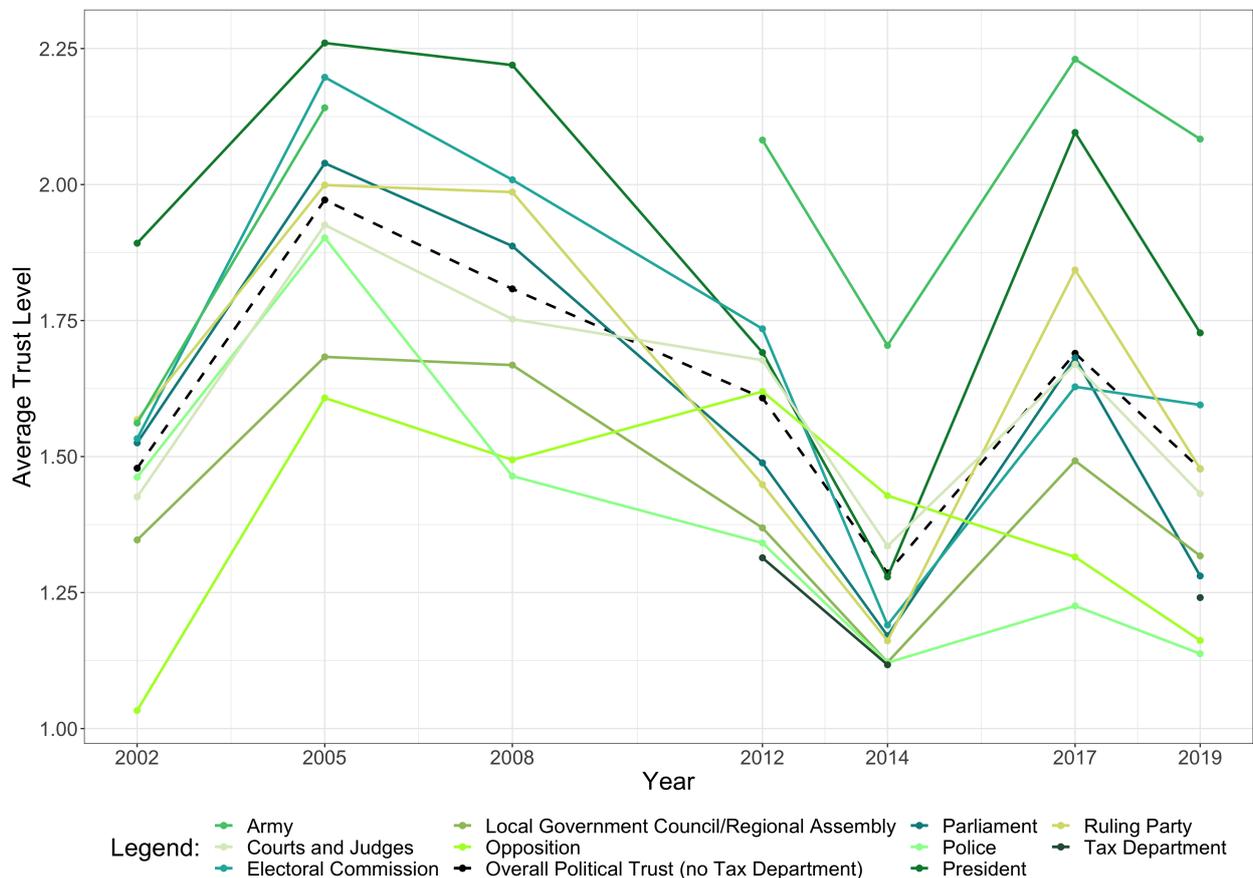
Figure 3: Trust in Political Institutions in Ghana

Thus, taken together, the variables can approximate the overall level of trust in political institutions [scale] in Ghana which is indicated by the dotted line in Figure 3. I constructed the quasi-metric scale variable for the overall trust level by combining the items from the question series about trust. The Cronbach's Alpha value, which I use to investigate how internally consistent or respectively related the items are, is quite high at 0.87. For each observation, I then calculate the mean value over all trust items, which is similar to the approach taken by Croke et al. (2016). If an interviewee refused to respond to one of the questions asking about trust, the average is computed over the available answers.[6] Comparing Figure 3 to Figure 1 one can observe the same development over

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[6]Due to the limited availability of some items of the trust question series, I construct 3 scales for the overall trust level. Figure A.I in Appendix A shows that the different scales are very similar on average, which is why I use the variable with all items except for the tax department. The other versions are used for robustness checks. Additionally, further descriptive graphs that only assume an ordinal scale level are provided in Appendix A for the individual trust variables.

the years. Thus, it is not surprising that other authors have found a statistically significant positive correlation between the variables (see, e. g., Christensen and Lægreid, 2005; Sulemana and Issifu, 2015).[7]

In addition to the key variables, I include a wide array of control variables that stem from the Afrobarometer data sets. The control variables are grouped into four categories: *living situation* including demographics (age, religiosity, religion, gender, region, district, urban vs. rural, ethnicity), *economic success* (education, employment status, poverty [scale]), *political interest and participation* (voted in most recent national election, closeness to political party, member of religious group, member of voluntary association/community group, contact to political person [scale], political participation [scale], interest in public affairs, news consumption [scale]) and *political attitudes* (perceived corruption [scale], country's present economic condition, direction of the country, how often officials get away unpunished, people vs. government responsible for well-being, ethnic group treated unfairly, political performance [scale], rejection of illiberal institutions [scale], support for democracy). These control variables are specifically employed because related, exploratory studies have demonstrated their relevance as has been explained before. Therefore, their inclusion greatly reduces the threat of omitted variable bias.[8]

The variables indicated as scales are constructed in the same manner as the variable for the overall level of political trust. The reason for that is that many items are very closely related and can altogether well proxy for a construct. Over the years, however, some questions were dropped, altered for one round or changed to include a related subject for the rest of the rounds. This led to a lot of missing values for individual variables in the data set. This is especially a problem for items of a question series that are jointly needed to proxy a construct, e. g. the question series about sources of news consumption only includes Social Media and the Internet for the newer rounds which make up a large part of news consumption amongst Ghanaians today. Hence, an inclusion of all individual items at the same time would not be possible, as this would lower the size of the data set to nearly zero. The construction of quasi-metric scales therefore mitigates an immense reduction in the size of the data set since it serves as an imputation method for missing values at the same time.

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[7]Figure A.II depicts a jittered scatterplot with a 99% confidence interval between the two variables in Appendix A. The graph shows that the correlation is very strong and backs up the results of the other studies.

[8]Appendix B provides a detailed description of all questionnaire items, Cronbach's Alpha for the scale variables, and summary statistics.

3.2 District-Level Data on the Distance to the Coast

Nunn and Wantchekon (2011) use the distance to the coast as an instrumental variable for the intensity of slavery for ethnic groups in their paper. More specifically, they have a cluster of the five major ethnic groups of Ghana and their average historical distance to the coast in their data set. The empirical analysis of this paper aims to identify a causal effect using an instrumental variable approach as well. While using the same idea in principle, I opt to alter the construction process to allow for more variance by increasing the number of clusters. I do so by using the distance to the coast from the centroids of the initial 110 districts of Ghana at the beginning of the Afrobarometer survey rounds instead, as this is the smallest unit of observation for location data in the data set.[9]
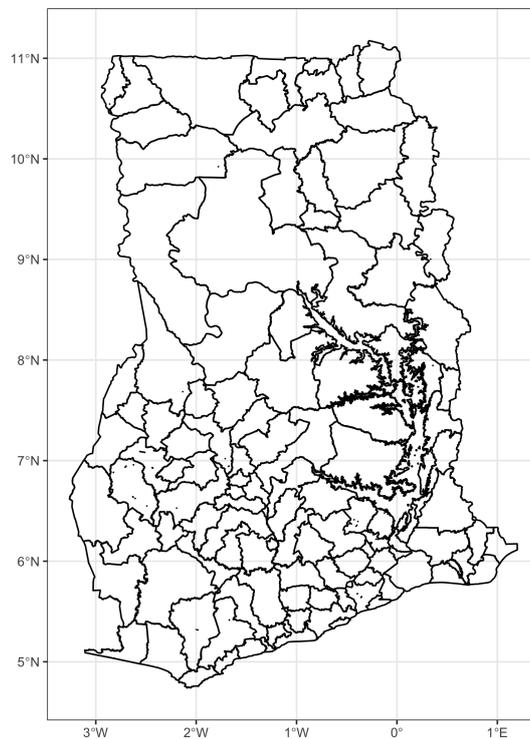
Figure 4: Original 110 Districts of Ghana

Since the district number has increased continuously over the last two decades to now more than 260 districts, I recode all new district names to the old ones they initially belonged to. Though the districts were divided into smaller ones over time, territories were not reassigned between existing districts, which is why the matching process is straightforward.[10] As the district variable is not available for the newer survey rounds, the data set is limited to rounds two, three, four and five for all regressions employing the district variable or the distance to the coast from each district. A shape file from the *Ghana Open Data Initiative*, which represents the Statistical Office of Ghana and therefore a reliable data source, is used to obtain geographic data for all the 110 initial

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[9]It is to be noted that robustness tests are performed with the instrument of Nunn and Wantchekon (2011).

[10]The only exception is the Kwabre district in the Ashanti region, yet these changes were not drastic.

districts.[11] Figure 4 shows the shape file of the 110 original districts graphically. Combining the districts' geographical data with the GPS data of the *OpenStreetMap*, which includes the outline of the coast, one can calculate the distance to the sea from the centroid of each district.[12] Figure 5a portrays the first step of finding the centroid of each district, while Figure 5b depicts the resulting distance to the coast for all districts.

(a) Centroids of Districts   **(b)** Distance to the Coast
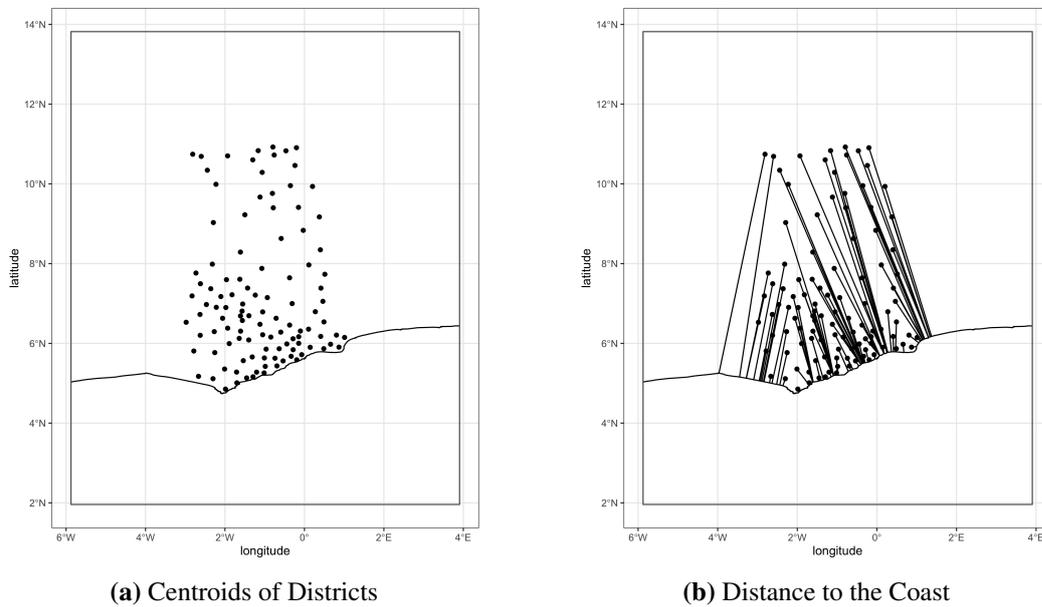
Figure 5: Construction of the Distance to the Coast from each District's Centroid

3.3   Historical Ethnicity-Level Data

Throughout their analysis, Nunn and Wantchekon (2011) employ a variety of historical variables for ethnic groups of different African countries, including Ghana. Data for Ghana is only available for the following ethnic groups that are also present in the Afrobarometer surveys: Akan [0], Ewe/Anglo [1], Ga/Adangbe [2], Dagarti [3] and Dagomba [4]. These ethnicities constitute the vast majority of the Ghanaian population. Two of the variables they employ are used as key variables and instruments throughout this analysis, sometimes for robustness checks. These are the number of slaves taken from each ethnic group, which is derived from the country-level export numbers in Nunn (2008) and the distance to the sea from the centroid of each ethnic group's historical living area.[13] As this paper builds on their findings and employs a similar methodology, it is useful to additionally include some of their historical variables to control for pre-colonial living conditions and colonial rule.

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[11]The shape file contained a missing value for one district name in the Ashanti region. The Atwina district was therefore added manually and switched with West Sekyere to obtain the correct labeling. The original data set is accessible here: https://data.gov.gh/dataset/shapefiles-all-districts-ghana-110-districts

[12]Further information and the data set can be found here: https://osmdata.openstreetmap.de/data/coastlines.html

[13]Murdock et al. (1959) is used to link the originally indicated ethnicities of the slaves to a classification similar to the one of the Afrobarometer and they provide data on the historical land of them as well.

The type of institutions that were built during the era of colonization depend on the disease environment that European settlers experienced as well as the precolonial prosperity of ethnic groups and their regions (Acemoglu et al., 2001, 2002). To control for the first determinant, the Malaria Suitability Index as constructed by Kiszewski et al. (2004) for the land historically inhabited by the ethnic groups is added. Accounting for the initial level of prosperity is hard due to the lack of reliable data sources. Therefore, a set of variables approximating urbanization rates, settlement patterns, and the number of jurisdictional hierarchies beyond the local level is used from Chandler (1987) and the Ethnographic Atlas by Murdock (1967). To incorporate the colonial era and its influence, data from Century Company (1911) and Roome (1924) is utilized. The constructed variables indicate whether the built railway network touched any of the land historically inhabited by an ethnic group, whether European explorers set foot on it, and how many religious missions there were per square kilometer.

Since the distance to the coast is used as an instrumental variable, some further control variables are included as executed by Nunn and Wantchekon (2011) to control for other channels of influence. As locations closer to the coast are further away from the trade network across the Sahara Desert, control variables are added for the average distance to the closest city in the Saharan trade network and the closest route of the Saharan trade. Nunn and Wantchekon (2011) have taken the data on historical locations of cities and trade routes from Ciolek (2001) who in turn had digitized the records of Oliver (2000). Furthermore, the historical reliance on fishing measured as the relative importance in the ethnic group's subsistence pattern by Murdock (1967) is added, as it fluctuates with the distance from the coast and affects the material conditions of ethnic groups as well.[14] All of the control variables listed above are included as a group called *ethnicity controls*.

4   Empirical Strategy

The goal of the empirical analysis is to identify causal effects. The biggest problem in a regular OLS regression would be endogeneity between the level of political trust and satisfaction with democracy or respectively slave exports. It is possible - and not unlikely - that generally cautious people are ceteris paribus both less trusting and more dissatisfied than others. Similarly, one could argue that ethnic groups that were initially more trusting, also did not sell each other out to the colonizers, resulting in a lower slavery intensity and fewer slave exports.[15] The coefficients of a naive regression would therefore likely be biased.

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[14]Further explanations regarding the ethnic variables are included in Appendix C.

[15]Consult Nunn and Wantchekon (2011) for further explanations about the origins of mistrust through slavery.

In order to isolate the exogenous variation of slave exports or respectively trust and trust on satisfaction with democracy, I employ the distance to the coast from the centroid of a respondent's home district as an instrumental variable (IV), while controlling for potential confounding variables.[16] The following two equations test the first hypothesis (H1) and represent the process of two-stage least squares (2SLS):

1$^{\text{st}}$ stage:

$$slave\_exports_e = \alpha + \beta \cdot \sqrt{district\_distance_d} + T_t + R_r + \mathbf{X}'_i\boldsymbol{\Omega} + \mathbf{Z}'_e\boldsymbol{\Psi} + \varepsilon_i \qquad (1)$$

2$^{\text{nd}}$ stage:

$$trust_i = \delta + \phi \cdot \widehat{slave\_exports_e} + T_t + R_r + \mathbf{X}'_i\boldsymbol{\Omega} + \mathbf{Z}'_e\boldsymbol{\Psi} + \mu_i \qquad (2)$$

In the first stage (1), the number of slaves exported from each ethnic group e per square kilometer are the dependent variable, which is closely linked to the intensity of colonization and can be considered a proxy variable. The baseline model uses the aforementioned instrumental variable with a square root as a transformation to account for the non-linear relationship.[17] Additionally, I account for time and region fixed effects for each survey round t of the pooled data set (T_t) and the original 10 regions r at the beginning of the Afrobarometer survey rounds (R_r). Lastly, the enumerated individual-level ($\mathbf{X}'_i$) and ethnicity-level ($\mathbf{Z}'_e$) control variables are used to reduce the chance of omitted variable bias. Some of the individual-level variables might be poorly suited as control variables. Exploratory studies on Ghana include most of them, but only correlations have been identified in most cases. One might instead consider them a consequence rather than a determinant of political trust, since other theories from the literature suggest so and mixed results have been found by empirical studies. Thus, the control variables are added sequentially in topic groups and specific attention will be paid to potential bad controls when checking the robustness of the results. Lastly, ϵ_i represents the error term of the equation. In the second stage (2), the self-created, quasi-metric scale variable for political trust is used first and then split up into its individual trust components with individual regressions during the robustness checks.[18] Each time, the estimated, exogenous variation of the variable slave exports per square kilometer is used as the main independent variable. All other control variables and fixed effects remain unchanged, the error term is now denoted as μ_i. The coefficient of interest is ϕ. If the results are in accordance with the first hypothesis (H1), ϕ will have a negative sign and be statistically significantly different from 0.

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[16]In order to check the robustness of the instrumental variable, other variables are used as instruments later.

[17]Other transformations are subject to robustness tests.

[18]The robustness checks additionally use the other two specifications of the scale variable.

Using the same approach as for the first hypothesis, equations (3) and (4) test the second hypothesis (H2) empirically:

1st stage:

$$trust_i = \kappa + \lambda \cdot \sqrt{district\_distance_d} + \sigma \cdot ethnicity_i \times T_t$$

$$+ T_t + R_r + \mathbf{X}'_i \mathbf{\Omega} + \mathbf{Z}'_e \mathbf{\Psi} + \xi_i \tag{3}$$

2nd stage:

$$sat\_dem_i = \tau + \theta \cdot \widehat{trust_i} + \omega \cdot ethnicity_i \times T_t$$

$$+ T_t + R_r + \mathbf{X}'_i \mathbf{\Omega} + \mathbf{Z}'_e \mathbf{\Psi} + \eta_i \tag{4}$$

In this case, the first stage (3) isolates the exogenous variation of the level of trust which the level of satisfaction with democracy is then regressed on. The same control variables are utilized as for the other approach, the only difference is that I add an interaction term of the individual affiliation with an ethnic group and the year of the survey round to control for the governmental party that was in power at the time, since there exist close ties between the ethnic affiliation of each individual i and Ghana's parties (Bob-Milliar and Lauterbach, 2021). Due to multicollinearity with the number of slave exports per square kilometers for each ethnic group, it is not possible to include this interaction term and a control variable for the ethnic affiliation in the equations (1) and (2). Also, the error terms are ξ_i and η_i now. For the predictions of the second hypothesis (H2) to uphold the empirical test, the sign of the coefficient of interest (θ) is to be positive and statistically significantly different from 0.

5 Results

5.1 First Hypothesis (H1): Slave Exports on Political Trust

Table 1 summarizes the second-stage results of the baseline model, equation (4), to test the first hypothesis (H1) using the distance to the coast from each district's centroid as the instrumental variable. The dependent variable, which is the same across all columns, is the self-created, quasi-metric scale for the overall level of political trust without considering trust in the tax department. The key independent variable is slave exports per square kilometer, its coefficient (ϕ) is listed in the first row for each column. The control variables are added across columns in groups, yet only the most relevant ones are listed in the table due to limited space.[19] Since the district and ethnicity variables - and therefore the number of exported slaves for that ethnic group - are jointly only

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[19]For further insights, consult Table D.I in Appendix D, which contains all coefficients for the same regression table. The variables that account for religiosity, stance on well-being, perception of officials getting away unpunished and opinion of the overall direction in which Ghana is headed are not included in either table because their addition would diminish the data set to zero observations, as they are not available for all used rounds three, four, and five. Table D.III in Appendix D shows how results change after adding them, however, this is only possible for the variables religiosity and unpunished officials.

	Dependent Variable:							
	Overall Level of Political Trust (without Tax Dep.)							
	Instrumental Variable							*OLS*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Slave exports per km^2	−0.033** (0.016)	−0.024 (0.028)	−0.014 (0.021)	−0.014 (0.021)	−0.011 (0.022)	−0.026 (0.033)	0.002 (0.002)	0.003** (0.001)
Intercept	2.063*** (0.152)	2.141*** (0.318)	1.999*** (0.328)	2.136*** (0.339)	2.094*** (0.375)	1.880*** (0.459)	1.896*** (0.308)	2.074*** (0.107)
2008		−0.206*** (0.041)	−0.195*** (0.040)	−0.203*** (0.040)	−0.190*** (0.041)	−0.219*** (0.044)	−0.196*** (0.037)	−0.201*** (0.039)
2012		−0.435*** (0.056)	−0.409*** (0.054)	−0.445*** (0.053)	−0.398*** (0.060)	−0.238*** (0.053)	−0.211*** (0.044)	−0.232*** (0.054)
2014								−0.350*** (0.064)
Age			0.008** (0.004)	0.009** (0.004)	0.006 (0.004)	0.003 (0.004)	0.003 (0.004)	−0.003*** (0.0003)
Female			−0.053** (0.022)	−0.083*** (0.024)	−0.049* (0.027)	−0.045 (0.028)	−0.047* (0.027)	−0.073*** (0.012)
Urban			−0.129*** (0.038)	−0.120*** (0.039)	−0.087** (0.037)	−0.096** (0.040)	−0.083*** (0.027)	−0.070*** (0.025)
Poverty				−0.110*** (0.018)	−0.114*** (0.019)	0.002 (0.020)	−0.001 (0.019)	−0.001 (0.016)
Voted					0.028 (0.036)	0.063* (0.036)	0.074** (0.034)	0.074*** (0.022)
Corruption						−0.167*** (0.023)	−0.168*** (0.022)	−0.236*** (0.025)
Performance						0.341*** (0.019)	0.344*** (0.017)	0.321*** (0.027)
Fixed effects		✓	✓	✓	✓	✓	✓	✓
Living situation			✓	✓	✓	✓	✓	✓
Economic success				✓	✓	✓	✓	✓
Political interest and participation					✓	✓	✓	✓
Political attitudes						✓	✓	✓
Ethnicity controls							(✓)	(✓)
Observations	3,843	3,843	3,795	3,776	3,585	3,064	3,064	4,491
R^2	−0.213	0.020	0.089	0.108	0.133	0.241	0.342	0.411
Adjusted R^2	−0.213	0.017	0.084	0.100	0.122	0.226	0.329	0.403
Residual Std. Error	0.800 (df = 3841)	0.720 (df = 3830)	0.694 (df = 3775)	0.688 (df = 3744)	0.678 (df = 3537)	0.624 (df = 3004)	0.581 (df = 3001)	0.606 (df = 4427)
F Statistic								49.097*** (df = 63; 4427)
Weak Instrument (Wald Statistic)	183.75*** (df = 3841)	23.880*** (df = 3830)	28.046*** (df = 3775)	27.538*** (df = 3744)	22.143*** (df = 3537)	13.498*** (df = 3004)	-	
Wu-Hausman	41.29*** (df = 3840)	2.127 (df = 3829)	0.857 (df = 3774)	0.932 (df = 3743)	0.496 (df = 3536)	2.061 (df = 3003)	-	

*p<0.1; **p<0.05; ***p<0.01

Table 1: Model Comparison for Hypothesis One (H1)

available for rounds three, four, and five (2005-2012) of the Afrobarometer, the data set is greatly limited from the beginning. Additionally, many respondents refuse to answer all questions, which is the reason why the number of observations gradually decreases across columns. The standard errors are clustered at the level of districts and ethnic groups due to the clustered assignment of the instrument and the number of slave exports per square kilometer for columns (1) to (7). The standard errors of the OLS model, which is used as a comparison and listed in column (8), are clustered only at the ethnicity-level, even though most of the coefficients cannot be estimated for the historical ethnicity control variables due to very little variation between the ethnic groups in Ghana, which is why the checkmark for *ethnicity controls* is in parentheses. The same can be

observed for the results of the 2SLS regression in column (7), which cannot be carried out properly due to immense multicollinearity. Therefore, no Wald statistic is reported and the Wu-Hausman test is not performed.

Column (1) depicts the findings of a bivariate 2SLS regression. The coefficient of interest is very close to zero, yet slightly negative and statistically significant at the five percent level. The interpretation of this coefficient and all other corresponding ones is as follows: an increase in the exogenous part of slave exports per square kilometer (first stage predicted value) by one unit is expected to cause a decrease in the overall level of political trust by 0.033 units. This simplistic regression, however, cannot serve as empirical evidence in support of hypothesis one (H1) because major confounding variables remain unconsidered. After the fixed effects for regions and time are added in column (2), the statistical significance of the coefficient disappears completely. This remains true as more and more control variables are included in the model throughout columns (3) to (7). Additionally, the coefficient of the slave export parameter approaches the value zero even further with an increasing number of control variables. Comparing the coefficient of each model specification with the one of the OLS model, it becomes clear that they are very similar in magnitude, even though their signs are different for most model specifications. The Wu-Hausman tests come to the same conclusion, stating that for all model specifications - except for the bivariate one in column (1) - a simple OLS regression with the same parameters would not have yielding significantly different results. Therefore, the IV model specifications are not more efficient than OLS regressions.

Some important control variables are listed in Table 1 to show their influence on the overall level of political trust in Ghana. The reference year is 2005 (round 3) compared to which respondents from later rounds exhibit - ceteris paribus - significantly lower trust levels throughout all model specifications. This is not surprising, as the descriptive graphs show high fluctuations over time as well, the government of Ghana shifted between parties during those years, and the general political climate likely changed. Socio-demographic variables like gender and age seem to be less important, as their coefficients are much closer to zero, yet they are statistically significant in most cases. The area a respondent lives in, both regarding the region and the level of urbanization, matters. Individuals living in urban areas are ceteris paribus less trusting in governmental institutions than people from rural areas. Although this effect is highly significant for all regression, the coefficients decrease as more control variables are added suggesting that other factors that are linked to urbanity and whose influence was caught up by the variable are the actual drivers of this effect. A similar conclusion can be drawn from the coefficients of the region fixed effects that additionally serve as

proxy variables for institutional differences, however, some remain quite far away from zero even after all control groups are added. Both the impact of the individual's level of poverty and whether he or she voted in the most recent national election are in accordance with the literature (Kostelka and Blais, 2018), yet they are not always statistically significant regarding the different regressions. Lastly, perceived corruption and governmental performance strongly affect political trust. While these associations are statistically significant at the one percent level, they potentially suffer simultaneity bias and might be bad control variables. Therefore, adding the control variables in groups through a stepwise process is a useful approach to identify the magnitude of resulting bias for the coefficient of interest (ϕ), which does not seem to be great in this case.[20]

The validity of instrumental variables critically hinges on two identifying assumptions: the relevance condition (1) and the exclusion restriction (2). The first one (1) means that the instrument, in this case the distance to the coast from a district's centroid, causes sufficiently strong variation in the endogenous, independent variable of the second stage, which are slave exports per square kilometer for an ethnic group here. This variation has to be monotone, it cannot be that living further from the coast means that an individual's ethnic group suffered more under slavery while most other ethnic groups suffered less. Ceteris paribus this requirement likely holds. The variation caused by the instrument is also strong enough, as the Wald statistic in the second-to-last column of Table 1 is always above the commonly used threshold of 10. Therefore, weak instrument bias is not present in the model and the relevance condition holds.

The second requirement (2) states that the instrument cannot have a direct effect on the outcome variable, in this case the overall level of political trust, but only an indirect one through the treatment variable. This means that all other potential channels of influence need to be accounted for through the use of control variables. An ethnic group's slave exploitation was historically not random and neither is an individual's level of political trust. Many of the aforementioned studies highlighted that political trust is determined by an individual's perception of the general economic and their individual living conditions. The wealth of a region and ethnic group is also influenced through historical developments, e. g. infrastructure and common trade or traffic routes - specifically through the Sahara in the case of Africa. A close proximity to them, however, is likely correlated with the distance to the coast and could potentially also lead to more exploitation through slavery, as colonizers could access some ethnic groups better than others. This consti-

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[20]The coefficients of further control variables are listed in Table D.I in Appendix D. Note that for ordinal control variables only the coefficients of the models with linearly fitted polynomials (L) are listed. Specifically the coefficients of the variables for unfair treatment and economic conditions of Ghana are important.

tutes another channel of influence undermining the exclusion restriction. Nunn and Wantchekon (2011) face the same challenge with their similar instrumental variable, which is why they and also I include the aforementioned ethnicity-level control variables accounting for exactly this channel of influence. Due to the very low variance in the control variables for the five ethnic groups in Ghana and possibly their high multicollinearity with other control variables, most of them are either automatically removed from the regressions or their coefficients cannot be computed in the models listed in columns (7) and (8). The 2SLS regression could therefore not be carried out in column (7), making the results unreliable. This, however, does not constitute a problem, as this suggests that all groups are very similar with regards to the historical ethnicity control variable and the postulated channel of influence likely does not constitute a problem. The array of additional, individual-level control variables and the fixed effects control for further channels of influence that could be thought of.[21] Hence, the second assumption arguably holds.

Even though the employed instrumental variables is valid, the bottom line is that hypothesis one (H1) does not uphold the empirical test as the corresponding null hypothesis cannot be rejected. After comparing the results with regard to the coefficient of interest in row one between all columns, this assertion is true irrespective of the model specification. Therefore, whether the ethnic group that a respondent belongs to suffered more or less under colonial slavery has no statistically significant effect on his or her level of overall political trust in Ghana today.

5.2   Second Hypothesis (H2): Political Trust on Satisfaction with Democracy

The second hypothesis (H2) argues that low levels of political trust were present first in Ghana and - accounting for potential confounding variables - led to a decrease in the level of satisfaction with democracy, which both persist until today. As this hypothesis builds upon the first hypothesis (H1), which was already discarded, I expect the second one to not uphold the empirical test either. Table 2 summarizes the results of the empirical test of the second hypothesis (H2) and is structured the same way as Table 1. The dependent variable is now the level of satisfaction with democracy, whose different levels I assume to be equidistant for now. This assumption of metricity will later be challenged through the robustness checks using a different coding scheme. The key independent variables, whose coefficient θ is reported in the first row of each column, is the overall level of political trust and the same trust scale as in Table 1 is employed to ensure cohesion. The control variables are again added to the regression model in groups and the most relevant ones are listed in the table. The only difference to Table 1 is that in Table 2, the ethnic affiliation of respondents

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[21]Consult Nunn and Wantchekon (2011) for further information.

is reported instead of the year of the survey round.[22] The same rounds of the Afrobarometer are used as for the empirical test of hypothesis one (H1), again limiting the data set to a great extent. Yet, the overall number of observations is higher, as not just the five major ethnic groups of Ghana, but instead all available ones, are considered for throughout columns (1) to (6). After adding the ethnicity-level control variables, the size of the data set decreases to about the same amount as in Table 1. The standard errors are clustered at the level of districts for columns (1) to (6), at the level of ethnic groups for column (8) and two-way clustering is used for column (7). Since the variation between ethnic groups in Ghana regarding the historical ethnicity-level control variables is still very small, the coefficients could again not be estimated in most cases, which is why the checkmark for *ethnicity controls* is in parentheses. This time, however, there is no multicollinearity issue for the 2SLS regression in column (7) and it could therefore be carried out in the usual matter.

In column (1), the coefficient of interest (θ) is positive and highly significant at the one percent level. Therefore, a change in the exogenous part of the overall level of political trust (first stage predicted value) by one unit is expected to cause an increase of 0.562 units in the level of satisfaction with democracy. According to the Wu-Hausman test, the bivariate IV regression is also more efficient compared to a bivariate OLS regression. Even though the Wald statistic is of great magnitude, thereby suggesting that weak instrument bias is not at play, omitting essential variables biases all these findings. To find empirical evidence in support of or contrary to the expectations drawn from the second hypothesis (H2), more covariates are added. After considering fixed effects for time and region as well as the ethnic affiliation and interaction terms between ethnic affiliation and survey round, the statistical significance falters. As an increasing amount of control variables are included into the model throughout columns (3) to (7), statistical significance cannot be regained, which is similar to the progression in Table 1. What is different, however, is that the distance to the coast suffers from weak instrument bias regarding the model specifications displayed in columns (2) to (7). Additionally, the magnitude of the coefficient for the overall level of political trust does not converge toward zero as more control variables are added, but rather increases and moves away from the coefficient (θ) of the OLS model with a full set of control variables. Comparing each model specification to the respective OLS model with the same number of control variables through the Wu-Hausman tests, no tendency is observable as to whether the IV regressions are more efficient than the respective OLS regression as more control variables are added.

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[22]For further insights, consult Table D.II in Appendix D, which contains all coefficients for the same regression table. The variables that account for religiosity, stance on well-being, perception of officials getting away unpunished and opinion of the overall direction in which Ghana is headed are not included in either table because their addition would diminish the data set to zero observations, as they are not available for all used rounds three, four, and five. They are later included in the robustness checks.

			Dependent Variable:					
			Level of Satisfaction with Democracy					
			Instrumental Variable					*OLS*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Overall level of political trust (without tax dep.)	0.562*** (0.158)	1.583 (1.084)	2.351 (2.387)	2.126 (2.394)	2.381 (4.236)	0.959 (0.700)	2.622 (2.659)	0.159*** (0.018)
Intercept	2.103*** (0.268)	0.138 (2.122)	−1.475 (4.570)	−1.164 (4.840)	−1.699 (8.714)	1.178 (1.197)	−1.420 (4.381)	2.749*** (0.131)
Ewe/Anglo		−0.041 (0.221)	0.130 (0.464)	0.036 (0.371)	0.149 (0.692)	−0.196 (0.135)	−0.211 (0.232)	−0.272*** (0.064)
Ga/Adangbe		0.223 (0.406)	0.554 (0.918)	0.474 (0.869)	0.607 (1.486)	0.115 (0.213)	0.486 (0.701)	−0.144** (0.063)
Dagarti		−0.570 (0.570)	−0.842 (1.061)	−0.664 (0.963)	−0.590 (1.349)	−0.101 (0.138)	−0.299 (0.537)	0.033 (0.081)
Dagomba		−0.142 (0.287)	0.027 (0.505)	0.073 (0.572)	0.165 (1.004)	−0.153 (0.225)	0.190 (0.599)	−0.444*** (0.136)
Other ethnicity		0.051 (0.214)	0.167 (0.416)	0.133 (0.393)	0.173 (0.633)	−0.092 (0.112)		
Age			−0.013 (0.022)	−0.011 (0.022)	−0.008 (0.021)	0.005 (0.005)	0.005 (0.011)	−0.001 (0.002)
Female			0.037 (0.103)	0.081 (0.169)	0.008 (0.122)	−0.026 (0.037)	0.042 (0.128)	−0.020 (0.019)
Urban			0.229 (0.288)	0.164 (0.258)	0.121 (0.306)	0.014 (0.066)	0.137 (0.234)	−0.071*** (0.017)
Poverty				0.045 (0.257)	0.078 (0.475)	−0.101*** (0.027)	−0.101* (0.053)	−0.061** (0.024)
Voted					−0.034 (0.153)	−0.053 (0.076)	−0.244 (0.248)	−0.014 (0.023)
Corruption						0.105 (0.127)	0.392 (0.466)	−0.004 (0.015)
Performance						−0.176 (0.248)	−0.739 (0.895)	0.082** (0.035)
Fixed effects		✓	✓	✓	✓	✓	✓	✓
Living situation			✓	✓	✓	✓	✓	✓
Economic success				✓	✓	✓	✓	✓
Political interest and participation					✓	✓	✓	✓
Political attitudes						✓	✓	✓
Ethnicity controls							(✓)	(✓)
Observations	5,254	4,476	4,432	4,412	4,204	3,695	3,029	3,065
R^2	0.045	−0.878	−2.389	−1.849	−2.402	−0.047	−2.377	0.244
Adjusted R^2	0.045	−0.889	−2.415	−1.879	−2.452	−0.068	−2.457	0.201
Residual Std. Error	0.890 (df = 5252)	1.210 (df = 4449)	1.622 (df = 4398)	1.490 (df = 4366)	1.624 (df = 4142)	0.892 (df = 3621)	1.617 (df = 2958)	0.777 (df = 2898)
F Statistic								5.647*** (df = 166; 2898)
Weak Instrument (Wald Statistic)	103.133*** (df = 5252)	3.114* (df = 4449)	1.236 (df = 4398)	0.986 (df = 4366)	0.384 (df = 4142)	4.727** (df = 3621)	1.225 (df = 2958)	
Wu-Hausman	3.086* (df = 5251)	3.514* (df = 4448)	3.520* (df = 4397)	2.269 (df = 4365)	1.179 (df = 4141)	1.542 (df = 3620)	4.032** (df = 2957)	

*p<0.1; **p<0.05; ***p<0.01

Table 2: Model Comparison for Hypothesis Two (H2)

Important control variables are listed in Table 2, just like in Table 1. Instead of the time fixed effects, however, the ethnic affiliation of respondents is listed while the other listed variables remain the same. As can be observed at first glance, almost none of the listed coefficients are statistically significant on at least the ten percent level. Therefore, no reliable assertion regarding the impact of socio-demographic factors, perception of political performance and personal attitudes as well as ethnic affiliation have on the level of satisfaction with democracy can be made. This is in stark contrast to the empirical analysis of hypothesis one (H1), since in that case most of the same vari-

ables are highly statistically significant. Regarding further control variables, whose coefficients are not listed in Table 2, most of them do not exhibit statistical significance for many model specifications either. Taking into consideration the fact that the prior descriptive graphs show quite some fluctuations of the level of satisfaction with democracy for different survey rounds, it is surprising to see that not even the time fixed effects are statistically significant. An exception to this lack of statistical significance is the coefficient of the poverty scale in the model specifications illustrated in columns (6) and (7).[23]

In order to evaluate the validity of the instrumental variable for this 2SLS regression model, it is crucial to assess whether the two aforementioned underlying assumptions hold. The relevance condition (1) requires in this case that the distance from a district's centroid to the coast causes sufficient and strictly monotone variation in the level of overall political trust of Ghanaian respondents. This means that - ceteris paribus - it cannot be that some respondents are more trusting because they live further from the coast while others exhibit a lower level of overall political trust. While the caused variation is likely monotone, it is not strong enough. This becomes evident after examining the Wald statistics of Table 2 which are far below the commonly used threshold of 10 for most model specifications, specifically in columns (2) to (7). Only in the simplistic bivariate case illustrated in column (1) the Wald statistic is greater than 10, yet the results of this 2SLS regression are not reliable due to likely occurring omitted variable bias. The bottom line is therefore that the distance to the coast is a weak instrument, thereby biasing the regression results.

The second assumption, the exclusion restriction (2), is certainly of lesser concern for the empirical test of hypothesis two (H2) than it is for the first hypothesis (H1). In this case the exclusion restriction requires that the distance to the coast from a district only exerts an indirect effect on the level of satisfaction with democracy of a respondent through the channel of political trust. As argued and empirically shown by Nunn and Wantchekon (2011), a greater distance to the coast is correlated with lower slave exports which in turn influence the level of interpersonal mistrust. The earlier postulated hypothesis one (H1) argues that this established environment of mistrust spilt over to the political sphere, which means that survey respondents living in regions that had suffered more under slavery - ceteris paribus - trust the government of Ghana less than others today. It is an empirical fact that satisfaction with democracy and political trust are significantly correlated, giving rise to the question which of the two variables has an influence on the other. Hypothesis

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[23]The coefficients of further control variables are listed in Table D.II in Appendix D. Note that for ordinal control variables only the coefficients of the models with linearly fitted polynomials (L) are listed. Specifically the coefficients of the variables for unfair treatment and economic conditions of Ghana are important.

two (H2) builds upon hypothesis one (H1) and this correlation, suggesting that since political mistrust was present first in Ghana, it must be that a low level of satisfaction with democracy stems from initial low levels of political trust which both persist until today. Although the first hypothesis (H1) is rejected over the course of the empirical test conducted above, there is no other plausible channel of influence regarding the distance to the coast and satisfaction with democracy after controlling for the set of confounding variables as done beforehand as well. Furthermore, one needs to keep in mind that the act of colonization and specifically the slave intensity could have had simultaneous effects on the level of political trust and satisfaction with democracy. This, however, seems very unlikely, as Ghanaians or rather people living in the historical region of Ghana which was called Gold Coast at the time had never seen a democratic system and would have had to develop an aversion towards it without having experienced it or understanding the concept of democracy. Therefore, no other plausible channel of influence remains unaccounted for and the exclusion restriction is expected to hold.

Overall, the conclusion that can be drawn with regard to the second hypothesis (H2) is that the IV regressions suffer from weak instrument bias and the predictions of the hypothesis do not uphold the empirical test. This is not surprising, since the second hypothesis (H2) strongly builds upon the first hypothesis (H1), which is rejected as well. Thus, the historically created environment of mistrust did not lead to statistically significantly lower levels of satisfaction with democracy in Ghana today according to the empirical results. Therefore, the bottom line of the two hypothesis tests is that the postulated chain of causality does not hold, potentially because the spill-over effects of interpersonal to political trust are not strong enough and thus lack statistical significance.

6 Robustness Checks

One aforementioned reason why both hypotheses do not uphold the empirical tests focuses on the derivations and postulated mechanisms from a theoretical perspective. Yet, it is also possible that the coding scheme of variables is not accurate or that bad control variables immensely bias the results. Hence, the following robustness tests are needed to provide clarity about the origins of the null results.

I first focus on the different codings regarding the scale variable of political trust and potential bad controls from the wide array of control variables. The initial descriptive analysis demonstrates that the three different trust scales are very similar regarding most rounds, but slightly differ for some of them as the items addressing trust in army and tax department are not asked in each round of

the Afrobarometer survey.[24] The thereby occurring derivations could cause different outcomes, hence it is important to check if this is the case. Additionally, some control variables - mostly the ones from the groups *political interest and participation* as well as *political attitudes* - could theoretically be outcome variables of the regression as well, thereby fitting the definition of bad control variables. As they potentially bias the results, I create a sparse model that only includes the control variables for *economic success* and *living situation*, perceived economic conditions of Ghana, unfair treatment of the ethnic group of the respondent and fixed effects for region and survey round. Additionally, the ethnic affiliation as well as an interaction term between ethnic affiliation and survey round is added for the regression employing satisfaction with democracy as an outcome variable. Table 3 provides the results of regressions with the sparse model with standard errors being clustered two-way at the district and ethnicity level for columns (1) to (3) and only at the district level for the other ones.

	Dependent Variable:					
		Overall Level of Political Trust		Level of Satisfaction with Democracy		
	(without Tax Dep.)	(without Tax Dep. and Army)	(with all Trust Items)			
	(1)	(2)	(3)	(4)	(5)	(6)
Slave exports	−0.020	−0.025	−0.020			
per km^2	(0.028)	(0.031)	(0.027)			
Political trust				1.401		
(without tax dep.)				(0.958)		
Political trust					1.190	
(without tax dep. and army)					(0.753)	
Political trust						1.403
(with all trust items)						(0.953)
Observations	3,448	3,448	3,448	4,079	4,079	4,079
R^2	0.132	0.112	0.142	−0.565	−0.345	−0.569
Adjusted R^2	0.123	0.102	0.133	−0.585	−0.363	−0.589
Residual Std. Error	0.672	0.698	0.672	1.102	1.021	1.103
	(df = 3409)	(df = 3409)	(df = 3409)	(df = 4026)	(df = 4026)	(df = 4026)
Weak Instrument	17.955***	17.955***	17.955***	3.646*	4.841**	3.625*
(Wald Statistic)	(df = 3409)	(df = 3409)	(df = 3409)	(df = 4026)	(df = 4026)	(df = 4026)
Wu-Hausman	1.285	1.953	1.224	3.129*	2.905*	3.128*
	(df = 3408)	(df = 3408)	(df = 3408)	(df = 4025)	(df = 4025)	(df = 4025)

*p<0.1; **p<0.05; ***p<0.01

Table 3: Sparse Model and Alternative Scales of Political Trust

Columns (1) to (3) test the sparse model for hypothesis one (H1), meaning that the outcome variables are the three different scales for political trust, while the key independent variable slave exports per square kilometer remains the same across these columns. For all the results prior to the sparse regression model depicted in Table 3, the scale specification without the tax department item like in column (1) is used. In the following columns (4) to (6), the dependent variable is the level of satisfaction with democracy, testing the second hypothesis (H2) with the sparse model specification. Each column, however, utilizes a different version of the quasi-metric scale variable for political trust as the respective key independent variable. Comparing the coefficients of interest between the respective columns (1) to (3) and (4) to (6) of Table 3, it becomes evident that they are

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[24]See Figure A.I in Appendix A for visual support.

very similar both in magnitude and statistical significance. The same holds true when juxtaposing the findings to Table 1 and Table 2. While the point estimates of the coefficients of the first three columns barely differ in comparison to the empirical test of hypothesis one (H1), the coefficients of the other three columns to the right are approximately the same magnitude as the coefficient of the baseline model including only fixed effects, ethnic affiliation, and interaction terms listed in column (2) of Table 2. This is not surprising, however, as the sparse model corresponds very much with this baseline model specification regarding the included control variables. The same conclusions can be drawn from the Wald statistics of each sparse model specification from Table 3 as before: the relevance conditions holds for the test of hypothesis one (H1), but not for hypothesis two (H2) resulting in weak instrument bias for the latter. Hence, the overall findings of the sparse model using variations of the scale variable for political trust are exactly the same as the ones from before.

The next step is to consider alternative codings of the variable satisfaction with democracy and challenge the metricity assumption of both outcome variables. Figure 2 shows that only very few respondents answer that Ghana is not a democracy when asked how satisfied they are with the way democracy works in Ghana. As this is clearly not the case when looking at democracy indices and their scores for the last two decades, this assertion of respondents is not based on facts. It rather reflects the individual disappointment with democracy, implying that the respondent is not at all satisfied with the way democracy works in Ghana. This suggests that the variable may not be metric, as the equidistance assumption between the different levels is potentially broken. Therefore, I recode the levels of the variable to four instead of five levels by uniting the lowest two to one category to create an alternative measure of satisfaction with democracy. Furthermore, one may argue that respondents are not good at distinguishing between the level of (dis)satisfaction and trust. Thus, I create a binary measure of both political trust and satisfaction with democracy to run a linear probability model with them. For political trust, I use the value 1.5 as a cutoff value. All respondents whose value on the political trust scale without the tax department is below 1.5 are recoded to 0 indicating that they do not exhibit political trust while all values equal or greater than 1.5 are recoded to 1 meaning that they trust the political institutions of Ghana. The same is done for satisfaction with democracy with the cutoff value of 2, all values above indicate that the individual is satisfied with the way democracy works in Ghana.

Additionally, the employment of other instrumental variables seems promising, as the relevance condition for the empirical test of the second hypothesis (H2) does not hold using the distance from a district's centroid to the coast. The initial results of the baseline model can hereby also

be confirmed, which is especially useful in the case of the first hypothesis (H1). Therefore, I use the instrumental variable employed by Nunn and Wantchekon (2011), which is the distance to the coast from the centroid of an ethnic group's historical living area, as an alternative instrument to check the robustness of both hypothesis tests. Moreover, the slave exports per square kilometers are re-used as an additional, third instrumental variable for the empirical test of the second hypothesis (H2). Since the distance to the coast from either specification relates to the slave export, this variable might even be better suited as an instrumental variable and potentially fulfills the requirements for validity with regards to the relevance condition.

	Dependent Variable:						
	Alternative Measure of Satisfaction with Democracy	Binary Measure of Political Trust	Binary Measure of Satisfaction with Democracy		Overall Level of Political Trust (without Tax Dep.)	Level of Satisfaction with Democracy	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Slave exports per km^2		−0.005 (0.014)			−0.006 (0.010)		
Political trust (without tax dep.)	1.320 (0.924)		0.249 (0.230)			2.586 (2.766)	−2.685 (7.434)
Binary measure of political trust				0.522 (0.503)			
Current distance from district	✓	✓	✓	✓			
Historical distance from ethnic group					✓	✓	
Slave exports per km^2							✓
Observations	4,068	3,448	4,237	4,237	8,844	8,595	8,595
R^2	−0.475	0.141	0.494	0.324	0.200	−2.871	−4.270
Adjusted R^2	−0.494	0.132	0.488	0.315	0.197	−2.890	−4.295
Residual Std. Error	1.052 (df = 4015)	0.448 (df = 3409)	0.339 (df = 4184)	0.392 (df = 4184)	0.685 (df = 8802)	1.842 (df = 8553)	2.149 (df = 8553)
Weak Instrument (Wald Statistic)	3.493* (df = 4015)	17.955*** (df = 3409)	3.987** (df = 4184)	1.944 (df = 4184)	438.646** (df = 8802)	1.638 (df = 8553)	0.186 (df = 8553)
Wu-Hausman	2.669 (df = 4014)	0.113 (df = 3408)	1.164 (df = 4184)	0.012 (df = 4183)	2.967* (df = 8801)	5.662** (df = 8552)	0.940 (df = 8552)

*p<0.1; **p<0.05; ***p<0.01

Table 4: Different Codings of Key Variables and Instrumental Variables

The regression results of the sparse model with the alternative coding schemes for key variables are reported in columns (1) to (4) of Table 4, while the findings of the sparse model with other instrumental variables are depicted in columns (5) to (7). The standard errors are two-way clustered at the ethnicity and district level for regression (2), one-way clustered at the district level for regressions (1), (3), and (4) and lastly one-way clustered at the ethnicity level for regressions listed in columns (5) to (7). The results listed in column (1), specifically the coefficient of political trust, are very similar to the ones of the sparse model using the regular coding of satisfaction with democracy and allow for the same interpretation as beforehand. Hence, the metricity assumption should hold for the variable at hand. The following two columns (2) and (3) use binary codings of the outcome variables. While the diagnostic statistics, Wald statistics and Wu-Hausman test results, do not come to a different conclusion than the aforementioned regression results of the

sparse model, the coefficients of interest require a different interpretation. A one unit change in the exogenous part of the dependent variable estimated in the first stage regression would lead to a 0.5 percentage point decrease in the probability of respondents being politically trusting (2) and a 24.9 percentage point increase in the probability of being satisfied with democracy (3) in expectations if the coefficients were statistically significant. Since the variables' ranges are reduced from 0-4 or respectively 0-5 to 0-1 each, the coefficients are expected to decrease proportionally by 75 or respectively 80 percent, which they do. Therefore, the empirical results using binary outcome variables do not differ from earlier findings. Lastly, column (4) uses binary outcome variables in both first and second stage. According to the coefficient, respondents that are estimated to be politically trusting (first stage) would be expected to be 52.2 percentage points more likely to also be satisfied with democracy (second stage) if the coefficient was statistically significant. Considering the other results, no remarkable changes are observable either.

The last three columns (5) to (7) use the distance from an ethnic group's historical living area and the number of slaves exported from an ethnic group standardized by the historical living area as instrumental variables instead of the one employed in the baseline model. The dependent variables are coded the regular way again and standard errors are always only clustered at the ethnicity level. The coefficient of interest listed in column (5) is a lot closer to zero compared to the results of Table 3, yet regarding sign and statistical significance, the results do not differ. It is important to notice that the new instrument causes remarkably more variation in the endogenous variable, as can be seen by the immensely high Wald static of 438.646. This is unfortunately not true regarding the regressions testing hypothesis two (H2) in columns (6) and (7). Weak instrument bias cannot be avoided by exchanging the employed instrumental variable. Additionally, the coefficients of the second stage vary immensely regarding their signs and point estimates, yet specifically the coefficient of column (7) exhibits very large standard errors which renders the estimate unreliable. This is counter-intuitive, since one would expect these instrumental variables to be stronger than the one used in the baseline regression model, which fits better into the chain of causality and can also be observed when using political trust as an outcome variable in column (5). One possible reason for that is that ethnic groups were historically very dispersed. High slave exports of one ethnic group do not imply that the whole living area suffered equally under colonization. It is likely that only certain, small subregions were affected by colonization, most probably the ones closer to the coast due to easier access specifically in the case of Ghana. This explains why the distance to the coast, both the current and historical one, serve as better instrumental variables for these regression. The validity of the historical distance to the coast of an ethnic group and slave exports

per square kilometer can be argued in a similar manner as for the regular instrumental variable employed in the baseline regression model.[25] Overall, the results reported in Table 4 are in line with all prior empirical findings.

	President	Parliament	Electoral Commission	Local Government Council	Trust in Ruling Party	Opposition	Police	Army	Courts
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Slave exports per km^2	−0.024 (0.044)	−0.020 (0.033)	−0.061 (0.056)	−0.063 (0.058)	−0.058 (0.056)	0.020 (0.034)	0.032 (0.042)	0.020 (0.025)	−0.005 (0.033)
Observations	3,422	3,391	3,400	3,362	3,404	3,359	3,424	2,609	3,366
R^2	0.172	0.116	−0.108	−0.135	−0.023	0.015	0.047	0.054	0.075
Adjusted R^2	0.163	0.106	−0.120	−0.148	−0.034	0.004	0.036	0.040	0.065
Residual Std. Error	1.035 (df = 3383)	0.984 (df = 3352)	1.098 (df = 3361)	1.155 (df = 3323)	1.157 (df = 3365)	1.076 (df = 3320)	1.114 (df = 3385)	1.013 (df = 2571)	1.012 (df = 3327)
Weak Instrument (Wald Statistics)	17.128*** (df = 3383)	17.413*** (df = 3352)	17.037*** (df = 3361)	16.775*** (df = 3323)	17.733*** (df = 3365)	17.981*** (df = 3320)	17.411*** (df = 3385)	23.643*** (df = 2571)	19.552*** (df = 3327)
Wu-Hausman	1.051 (df = 3382)	0.442 (df = 3351)	4.846** (df = 3360)	4.757** (df = 3322)	4.933** (df = 3364)	0.577 (df = 3319)	1.129 (df = 3384)	0.511 (df = 2570)	0.004 (df = 3326)

Dependent Variable:

*p<0.1; **p<0.05; ***p<0.01

Table 5: Separate Trust Items from Afrobarometer Survey for Hypothesis One (H1)

Lastly, it is crucial to check whether individual trust items cause these null results or the two hypotheses hold empirically true for some of them. In order to do so, I exchange the quasi-metric scale variable for political trust - excluding trust in tax department - with all trust items it is comprised of one at a time to test both hypotheses again. It is necessary to assume equidistance between the different levels of the Likert scale for metricity, as is done for the levels of the variable satisfaction with democracy. Table 5 summarizes the results for hypothesis one (H1). As the sparse model specification is utilized, the layout and interpretation of results are the same as in Table 3. The coefficients listed in columns (1) and (2) are very similar to prior results regarding their statistical significance, sign, and magnitude. The same is true for the Wald statistics. This suggests that trust in president and parliament may be used interchangeably with the overall level of political trust in the case of Ghana. The point estimates of the key coefficient for trust in the Electoral Commission (3), local government council (4), and ruling party (5) are about three times greater compared to the first two columns. Yet, they also lack statistical significance and the Wald statistics are about the same. These findings oppose the ones of Nunn and Wantchekon (2011) who found statistically significant results with regard to the coefficient when using the variable local government council (4). These diverging findings might stem from inter-country differences, as Nunn and Wantchekon (2011) focus on Sub-Saharan Africa as a whole and not just Ghana. What is surprising are the last four columns (6) to (9). According to the results, higher slave exports per square kilometer would - ceteris paribus - lead to higher trust levels in opposition, police, and army if the coefficients were statistically significant. Moreover, the effect regarding trust in courts is very close to

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[25]See Nunn and Wantchekon (2011) for a more detailed explanation tailored to the historical distance to the coast.

zero, but lacks statistical significance as well. Even though none of the coefficients are statistically significantly different from 0, the point estimates suggest heterogeneous effects between different political institutions. Therefore, it may not be useful to use a scale variable constructed from different political institutions, as done prior in this paper, to measure the overall level political trust because it could differ widely between different institutions.

Table 6 reports the results of the same robustness check as for Table 5 for the second hypothesis (H2). The individual trust items are now used as outcome variables of the first stage. Satisfaction with democracy is then regressed on the estimated, exogenous variation of the trust items. The sparse model specification is employed for the analysis and the interpretation of the listed coefficients is identical to Table 3. Again, the regression results for the items of trust in president (1) and parliament (2) are very similar to the regular findings when using the scale for political trust, reinforcing the idea that trust in president and parliament could potentially approximate the overall level of political trust of Ghanaians. Unfortunately, both regressions suffer from weak instrument bias and the coefficients also lack statistical significance. The employment of trust in the Electoral Commission (3), local government council (4), and ruling party (5) yield statistically significant coefficients for the second stage. Even though they are a lot closer to zero than the other ones, the Wald statistics are close to the threshold of ten. This means that these three regression models suffer a lot less under weak instrument bias, giving the results some merit and making the statistically significant coefficients one of the most important empirical findings of this analysis. Also, this reinforces the findings of Nunn and Wantchekon (2011) as they investigated trust in the local government council (4) in their analysis as well and found significant results for other parts of Africa. This means that even though hypothesis one (H1) does not uphold the empirical test in the case of Ghana, it does for other parts of Africa, suggesting that the statistically significant results that are found in column (4) are not coincidence, but rather uphold the postulated chain of causality. The last four columns (6) to (9) of Table 6 also demonstrate unexpected patterns as the last four regression results in Table 5. Namely, the point estimates of the coefficients of interest are very large, yet not statistically significant, and the signs are negative, which is counter-intuitive, for the same three trust items as before. Additionally, the Wald statistics are considerably smaller than before, far below the desired threshold to rule out weak instrument bias.

The bottom line of the robustness tests is that the codings of key variables do not alter the empirical findings significantly, but splitting up the scale measuring political trust into the original components and using them in the 2SLS regressions instead makes a difference. Furthermore, the instrumental variable employed by Nunn and Wantchekon (2011), namely the distance to the coast

from the historical living area of an ethnic group, might be better suited for the regressions regarding the empirical test of hypothesis one (H1). Overall, the robustness checks reinforce the initial findings of the baseline model, which are null results in the case of both hypothesis tests, however, they also suggest that the environment of mistrust caused by slave exports only spilt over to the trust levels of some political institutions which in turn have heterogeneous effects on the level of satisfaction with democracy.[26]

Trust in...				*Dependent Variable:*					
				Satisfaction with Democracy					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
President	1.197								
	(1.012)								
Parliament		1.471							
		(1.404)							
Electoral Commission			0.642*						
			(0.363)						
Local Government Council				0.596*					
				(0.320)					
Ruling Party					0.670**				
					(0.325)				
Opposition						−3.563			
						(6.260)			
Police							−1.819		
							(2.318)		
Army								−1.265	
								(1.584)	
Courts									4.265
									(11.361)
Observations	4,048	4,022	4,020	3,981	4,022	3,972	4,048	3,044	3,974
R^2	−1.200	−2.113	−0.152	−0.207	−0.206	−17.538	−5.411	−2.131	−22.510
Adjusted R^2	−1.229	−2.153	−0.168	−0.223	−0.222	−17.784	−5.494	−2.179	−22.822
Residual Std. Error	1.307	1.549	0.945	0.966	0.968	3.784	2.222	1.509	4.260
	(df = 3995)	(df = 3969)	(df = 3967)	(df = 3928)	(df = 3969)	(df = 3919)	(df = 3995)	(df = 2997)	(df = 3921)
Weak Instrument	2.578	1.642	7.332***	9.052***	8.216***	0.286	0.890	1.266	0.165
(Wald Statistics)	(df = 3995)	(df = 3969)	(df = 3967)	(df = 3928)	(df = 3969)	(df = 3919)	(df = 3995)	(df = 2997)	(df = 3921)
Wu-Hausman	4.135**	4.316**	2.613	3.603*	3.469*	5.790**	5.741**	3.151*	4.348**
	(df = 3994)	(df = 3968)	(df = 3966)	(df = 3927)	(df = 3968)	(df = 3918)	(df = 3994)	(df = 2996)	(df = 3920)

*p<0.1; **p<0.05; ***p<0.01

Table 6: Separate Trust Items from Afrobarometer Survey for Hypothesis Two (H2)

7 Bottom Line and Outlook

The purpose of this paper has been to investigate the effect of colonization, specifically slavery, on political attitudes regarding regime support. The two postulated hypotheses argue that slave exports established an environment of mistrust between and among ethnic groups that spilt over to the political sphere (H1). Following this logic, mistrust was present before dissatisfaction with democracy, which both persist until today (H2). This study has used survey data from all suitable rounds of the Afrobarometer and geographical as well as historical, ethnicity-level data while being solely focused on Ghana as an upper-bound case study. While the goal has been to identify

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[26]Table D.III in Appendix D completes the robustness checks. Alternative transformations regarding the instrumental variable are used and control variables that could not be added to any model specification due to possessing many missing values. These are added to the sparse model one at a time to check whether their inclusion noticeably changes the coefficient of interest regarding both hypothesis tests. Due to little variation or multicollinearity, this is only possible to carry out this test for the control variables religiosity and perception of officials being unpunished. The results do not differ from prior findings.

a causal effect of slave intensity on political mistrust and political mistrust on dissatisfaction with democracy using an instrumental variable approach, the empirical results are not in line with the expected outcomes according to the hypotheses. While the robustness checks reinforce the findings of the baseline model, using the individual level of trust in single political institutions rather than in politics as a whole have yielded significantly different results. More precisely, these questionnaire items are trust in the Electoral Commission, local government council or district assembly, and ruling party. A change of one unit or respectively one level in these three trust items is expected to cause a considerable increase of half a unit or respectively half a level in the degree of satisfaction with democracy. Assuming that the value 0 means absolutely dissatisfied and the value 4 indicates utmost satisfaction with democracy, this increase corresponds to a change of about 12.5 percentage points in the level of satisfaction with democracy. The bottom line of the analysis is, however, that both the first (H1) and second hypothesis (H2) are not entirely supported by empirical tests, yet hypothesis two (H2) holds some merit when analyzing individual political institutions.

As mentioned prior to the analysis, Ghana was chosen for the case study due to great exposure to slave trade, which is reflected in the amount of ports located on the historical territory of the country and the number of slaves abducted from their region. Hence, Ghana clearly serves as an upper bound case. One can expect that the postulated effect of either of the two hypotheses should be strongest there compared to other African countries or respectively that an effect is most likely to be found in that region. As this is not the case, one is inclined to presume that the theorized chain of causality does not exist or is not measurable empirically. Since each country was colonized by other European powers and all possess a unique history of politics, other political institutions, and differently performing governments, it is hard to generalize these findings to other political environments in Africa and therefore external validity is certainly not guaranteed. However, given the findings for Ghana it seems likely that effects which are in accordance with any of the two hypotheses are not large in other countries.

What this study has failed to address is the potential simultaneity between satisfaction with democracy and political trust. As both variables are measures of regime support and they are closely correlated, it is possible that they also reinforce one another. This means that even though mistrust was present first due to colonization, dissatisfaction with democracy weakened it further and over time this had again a negative effect on the level of satisfaction with democracy again. It is necessary to keep this mechanism in mind during further analyses. One way to check whether an effect of the level of satisfaction on political trust even exists is to again use exogenous variation caused by a different instrumental variable. In the case of Ghana this can be achieved through the national

referendum in 1992 which established a democracy in Ghana. As this was quite surprising to the general public and the existent government was thereby validated and not replaced, this can serve as a positive shock on satisfaction with democracy, but leaves trust levels in government untouched since political structures did not change and neither did governmental stakeholders.

A major challenge during the analysis have been the missing variables for some rounds of the Afrobarometer resulting in many missing values and a greatly reduced number of observations in the data set. Additionally, the clustered assignment of the ethnicity-level control variables and slave exports per square kilometer on just five ethnic groups lacks variation and many coefficients could therefore not be estimated. Together with the clustered assignment of the district-level distance to the coast, these are the reasons why standard errors are very large for numerous regression estimates and potentially lacking statistical significance for the coefficients of interest ϕ and θ. A possible solution to decrease standard errors and avoid the aforementioned problems is to extend the empirical analysis to other African countries included in the Afrobarometer surveys, most of them are in Sub-Saharan Africa, thereby increasing both the number of observations and the size of the clusters regarding ethnic groups. Thus, valuable insights might be generated into how the magnitude of possibly then significant effects differs across countries and regions. Furthermore, a pattern might emerge as to why the chain of causality holds in some areas but not in others, hinting at contextual factors that might have played an important role throughout history. While this study paves the way to analyze the connection between satisfaction with democracy and the level of trust in political institutions, more research is needed in this field, specifically focusing on emerging democracies in Africa and their differences in political attitudes and behaviors compared to Europe and the United States of America.

Appendices
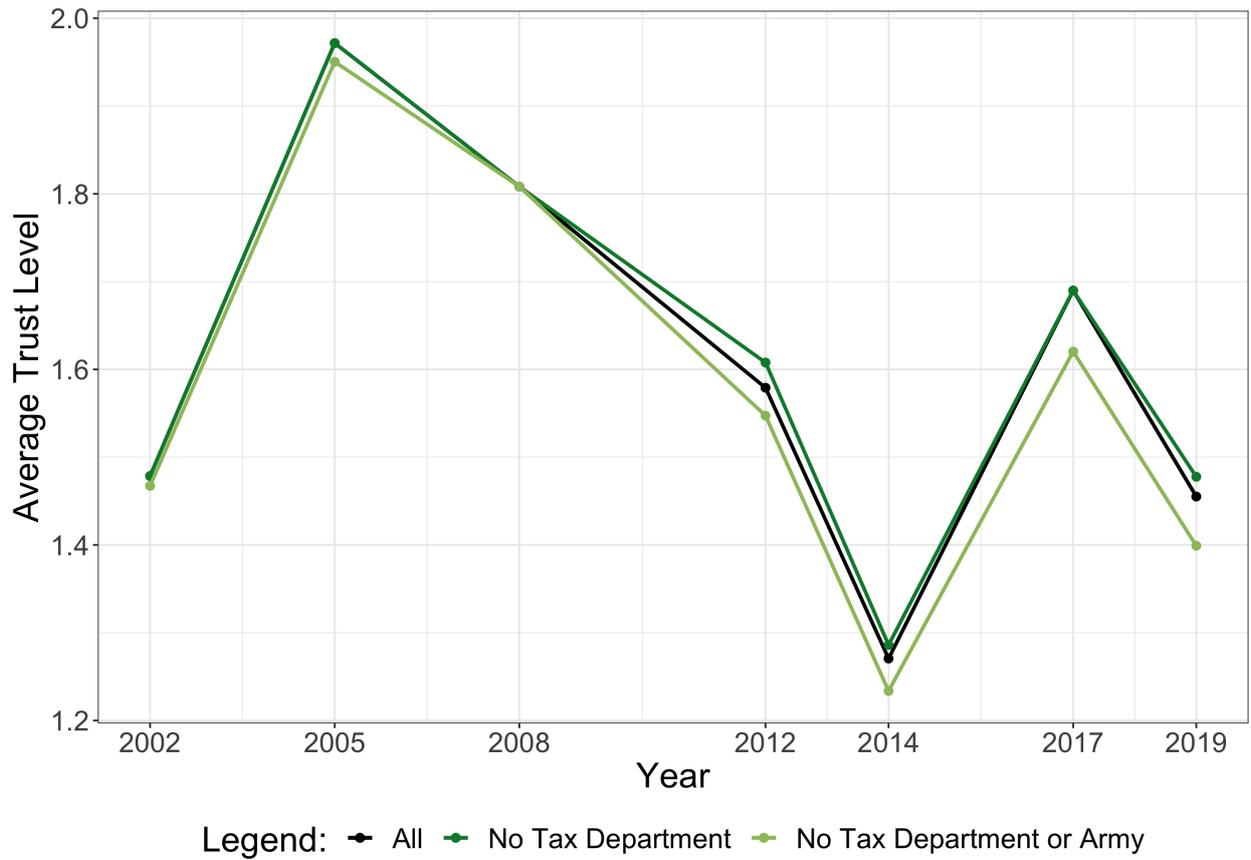
Appendix A: Further Descriptive Figures

Figure A.I: Comparison of Scales for the Overall Level of Political Trust
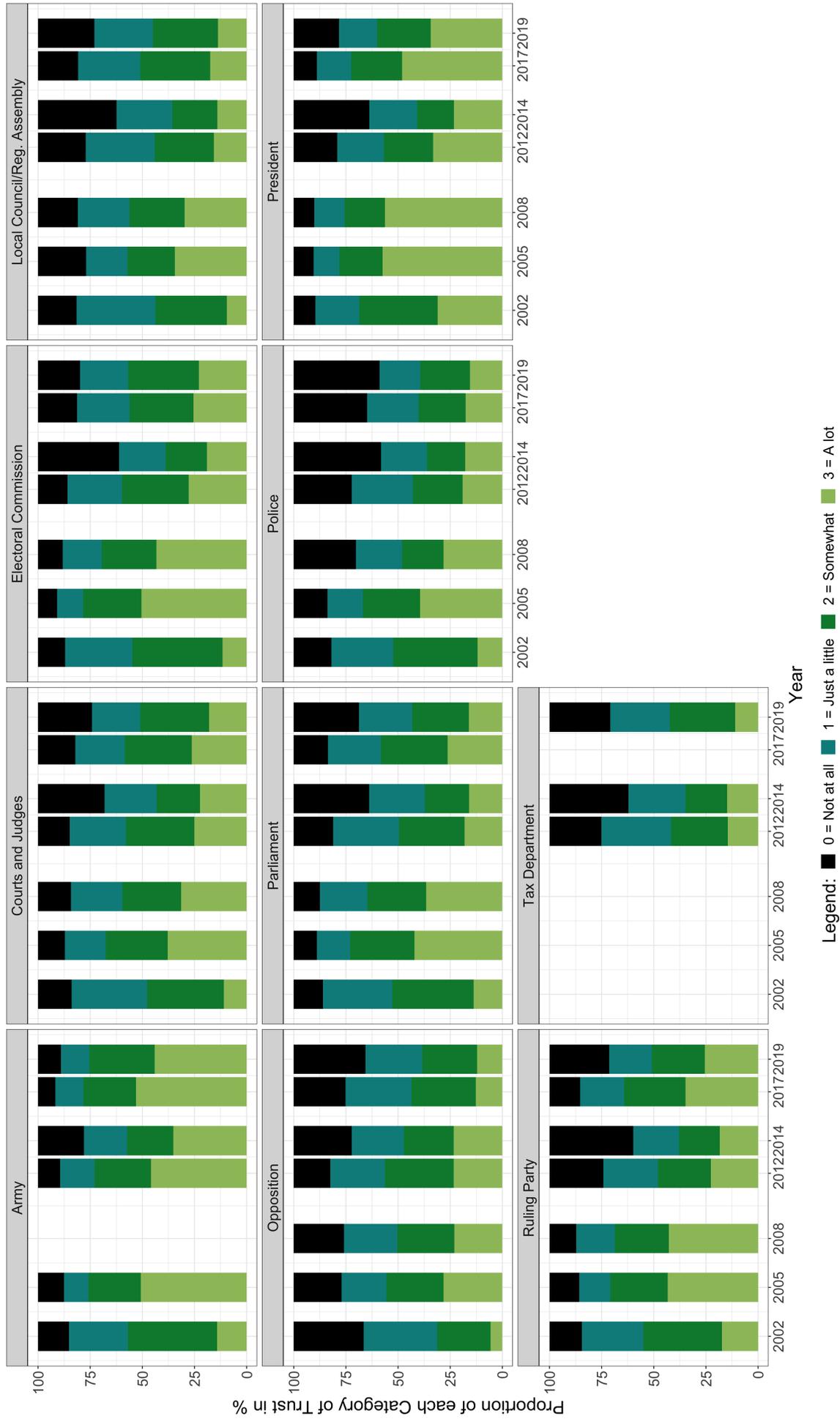
Figure A.II: Level of Trust in Political Institutions in Ghana by Category and Year
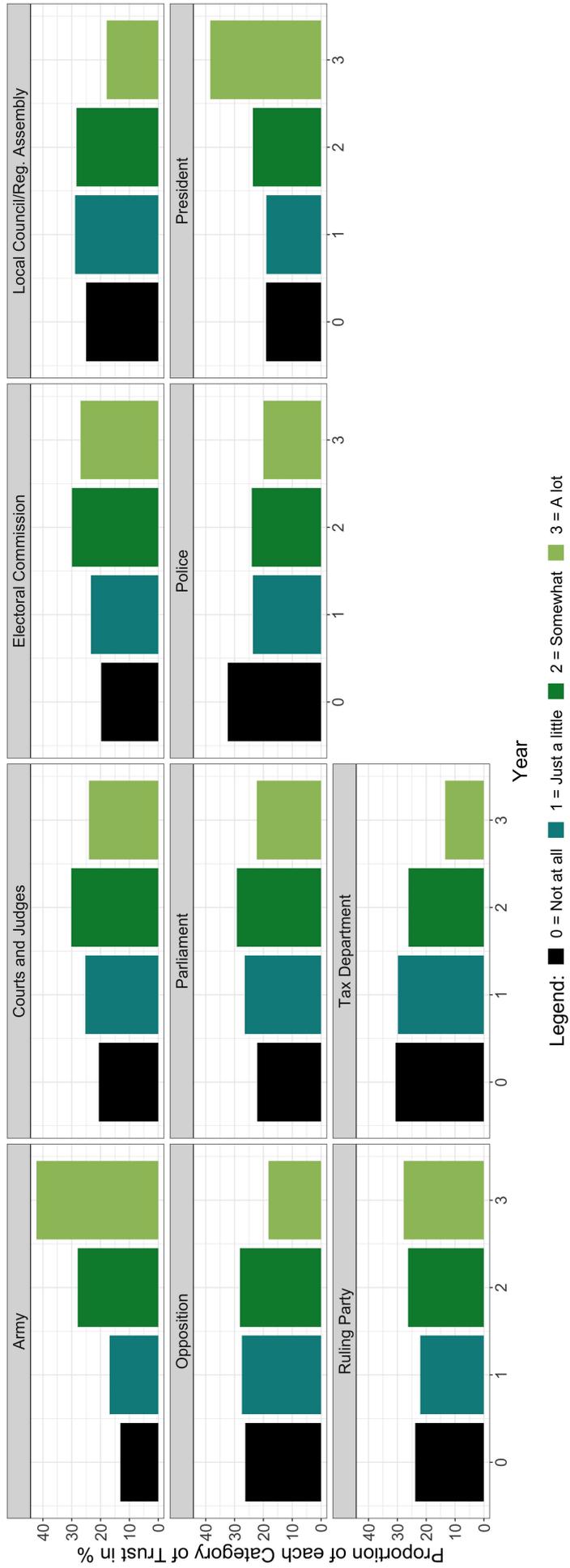
Figure A.III: Level of Trust in Political Instituitions in Ghana by Category
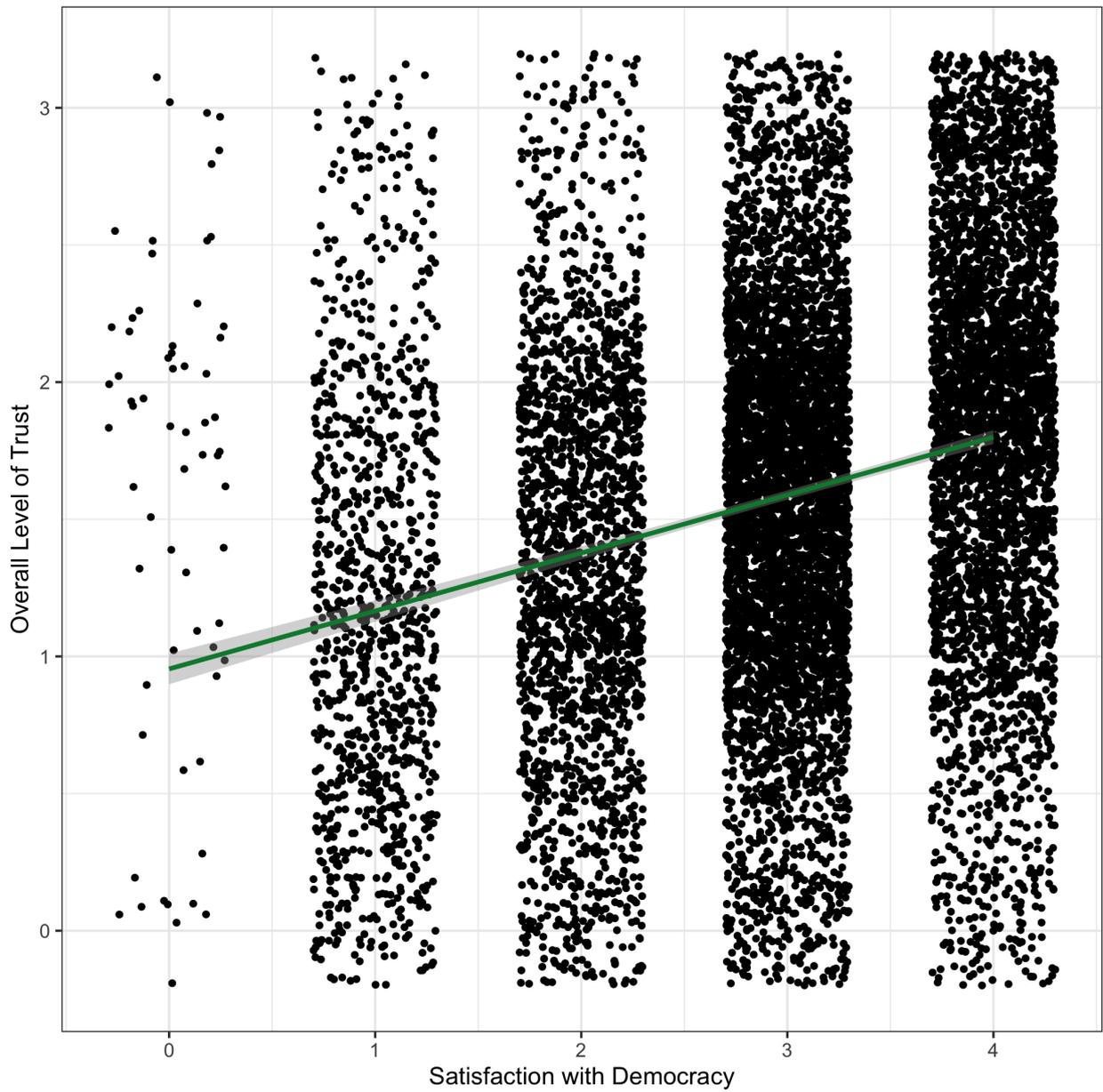
Figure A.IV: Jittered Scatterplot with Overall Political Trust and Satisfaction with Democracy

Appendix B: Explanation of Questionnaire Items and Summary Statistics

The following variables stem from the Afrobarometer survey rounds two to eight. The definitions provided explain all questionnaire items employed in the empirical analysis. If not indicated otherwise, the variables are available for all survey rounds considered (rounds two to eight). All variables also provide the answer options refused and don't know/haven't heard enough, which are consistently recoded to missing.

Key Variables:

Overall Level of Political Trust with all Trust Items [scale]: Mean scale variable combining ten indicator variables. The questions ask how much respondents trust the president, the parliament/national assembly, the Electoral Commission, the local government council/district assembly, the ruling party, the opposition political party, the police, the army, the courts/judges, and the tax department. Cronbach's Alpha is 0.88 for the whole sample.

Overall Level of Political Trust without Tax Department [scale]: Mean scale variable combining ten indicator variables. The questions ask how much respondents trust the president, the parliament/national assembly, the Electoral Commission, the local government council/district assembly, the ruling party, the opposition political party, the police, the army, the courts/judges, and the tax department. Cronbach's Alpha is 0.87 for the whole sample.

Overall Level of Political Trust with Tax Department and Army [scale]: Mean scale variable combining ten indicator variables. The questions ask how much respondents trust the president, the parliament/national assembly, the Electoral Commission, the local government council/district assembly, the ruling party, the opposition political party, the police, the army, the courts/judges, and the tax department. Cronbach's Alpha is 0.86 for the whole sample.

- *Trust in President*: The question asks how much respondents trust the president. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3].

- *Trust in Parliament*: The question asks how much respondents trust the parliament/national assembly. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3].

- *Trust in Electoral Commission*: The question asks how much respondents trust the Electoral Commission. The following answer options are provided: not a lot [0], just a little [1],

somewhat [2], and a lot [3].

- *Trust in Local Government Council/District Assembly*: The question asks how much respondents trust the local government council/district assembly. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3].

- *Trust in Ruling Party*: The question asks how much respondents trust the ruling party. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3].

- *Trust in Opposition*: The question asks how much respondents trust the opposition political party. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3].

- *Trust in Police*: The question asks how much respondents trust the police. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3].

- *Trust in Army*: The question asks how much respondents trust the army/military. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3]. The question was not asked in round four.

- *Trust in Courts/Judges*: The question asks how much respondents trust the courts of law. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3].

- *Trust in Tax Department*: The question asks how much respondents trust the tax department/tax revenue office. The following answer options are provided: not a lot [0], just a little [1], somewhat [2], and a lot [3]. The question was not asked in rounds two, three, four and seven.

Satisfaction with Democracy: The question asks respondents how satisfied they are with the way democracy works in Ghana. The following answer options are provided: Ghana is not a democracy [0], not at all satisfied [1], not very satisfied [2], fairly satisfied [3] and very satisfied [4].

Variables measuring Living Situation:

Age: The question asks the age of respondents starting with 18 year olds (minors are never interviewed).

Religiosity: The question asks respondents how important religion is to them. The following answer options are provided: not at all important [0], not very important [1], somewhat important [2] and very important [3]. The question was not asked in rounds two, three, six, seven and eight.

Religion: The question asks respondents what religion they have. The answer options are recoded the following way: none/atheist/agnostic [0], Muslim [1], Christian [2] and all other religions [3].

Region: The interviewer indicates in which administrative region respondents live. There are ten in total: Greater Accra [0], Central [1], Western [2], Volta [3], Eastern [4], Ashanti [5], Brong Ahafo [6], Northern [7], Upper East [8] and Upper West [9]. After a referendum in 2018, some regions were split up to create a total of 6 new regions. The new regions are recoded according to the old borders to keep the total number of regions for this study constant over time.

District: The interviewer indicates in which administrative district respondents live. There are 110 districts in total. Over the years the district number increased to 261, as big districts were split up to create new ones. The new districts are recoded according to the old borders to keep the total number of districts for this study constant over time. The question was not asked in rounds six, seven, and eight.

Gender: The questions asks respondents to indicate their genders. The following answer options are provided: male [0] and female [1].

Urbanity: The interviewer indicates if respondents live in a rural [0] or urban [1] area.

Ethnicity: The question asks respondents what ethnic community, cultural group or tribe they identify with. The answer options are recoded the following way: Akan [0], Ewe/Anglo [1], Ga/Adangbe [2], Dagarti [3], Dagomba [4] and all other ethnic minorities [5]. The question was not asked in round two with comparable answer options.

Variables measuring Economic Success:

Education: The question asks respondents about their highest level of education. The following answer options are provided: no formal schooling/only informal schooling [0], some primary schooling [1], primary school completed [2], intermediate school or some secondary school/high school [3], secondary school/high school completed [4], post-secondary qualifications, other than university, e. g. a diploma or degree from a polytechnic or college [5], some university [6], university completed [7] and post-graduate [8].

Living Conditions: The question asks respondents how they would describe their own present living conditions. The following answer options are provided: very bad [0], fairly bad [1], neither good nor bad [2], fairly good [3] and very good [4]. The question was not asked in round six with comparable answer options.

Employed: The question asks respondents if they have a job that pays cash income and if they are currently looking for a job. The answer options are recoded the following way: no, not looking [0], no, looking [1], yes, part time [2] and yes, full time [3]. The question was not asked in round six with comparable answer options.

Poverty [scale]: Mean scale variable combining six indicator variables. The questions ask respondents how often, if ever, they or anyone in their family how gone without enough food, clean water, medicine/medical treatment, cooking fuel and cash income in the past year. Additionally, the variable living conditions was reverse-coded and added to the scale. Cronbach's Alpha is 0.72 for the whole sample.

- *Without Food*: The question asks respondents how often, if ever, they or anyone in their family how gone without enough food in the past year. The following answer options are provided: never [0], just once or twice [1], several times [2], many times [3] and always [4].

- *Without Water*: The question asks respondents how often, if ever, they or anyone in their family how gone without enough clean water in the past year. The following answer options are provided: never [0], just once or twice [1], several times [2], many times [3] and always [4].

- *Without Medicine*: The question asks respondents how often, if ever, they or anyone in their family how gone without enough medicine/medical treatment in the past year. The following answer options are provided: never [0], just once or twice [1], several times [2], many times [3] and always [4].

- *Without Fuel*: The question asks respondents how often, if ever, they or anyone in their family how gone without enough cooking fuel in the past year. The following answer options are provided: never [0], just once or twice [1], several times [2], many times [3] and always [4].

- *Without Cash*: The question asks respondents how often, if ever, they or anyone in their family how gone without enough cash income in the past year. The following answer options

are provided: never [0], just once or twice [1], several times [2], many times [3] and always [4].

- *Reversed Living Conditions*: The coding of the variable living conditions was reversed to fit the coding of the other variables of the scale.

Variables measuring Political Interest and Participation:

Voted: The question asks respondents if they voted in the most recent national election. The answer options are recoded the following way: I did not vote [0] and I voted [1]. The question was not asked in round two with comparable answer options.

Party Affiliation: The question asks respondents what party, if any, they feel close to. The answer options are recoded the following way: not applicable/none [0], NDC [1], and NPP [2].

Member of Religious Group: The question asks respondents if they are a member of a religious group that meets outside of regular worship services and if they have a specific role in that. The following answer options are provided: not a member [0], inactive member [1], active member [2] and official leader [3]. The question was not asked in round eight.

Member of Community Group: The question asks respondents if they are a member of a voluntary association, community group or community development association. The following answer options are provided: not a member [0], inactive member [1], active member [2] and official leader [3]. The question was not asked in round eight.

Contact [scale]: Mean scale variable combining four indicator variables. The questions ask respondents how often they have contacted the district chief executive/assembly man or woman, a member of parliament, an official of a governmental agency and a political party official in the past year. Cronbach's Alpha is 0.74 for the whole sample.

- *Contact to District Chief Executive*: The question asks respondents how often they have contacted the district chief executive, an assembly man or woman or a local government councilor in the past year. The following answer options are provided: never [0], only once [1], a few times [2] and often [3].

- *Contact to Member of Parliament*: The question asks respondents how often they have contacted a member of parliament in the past year. The following answer options are provided: never [0], only once [1], a few times [2] and often [3].

- *Contact to Governmental Agency*: The question asks respondents how often they have contacted an official from a government agency or ministry. The following answer options are provided: never [0], only once [1], a few times [2] and often [3]. The question was not asked in round eight.

- *Contact to Party Official*: The question asks respondents how often they have contacted an official from a political party. The following answer options are provided: never [0], only once [1], a few times [2] and often [3]. The question was not asked in round four.

Participation [scale]: Mean scale variable combining three indicator variables. The questions ask respondents if they attended a community meeting, joined others to raise an issue or participated in a demonstration/protest march within the last year and if they would do so, if they had the chance to. Cronbach's Alpha is 0.63 for the whole sample.

- *Attend Community Meeting*: The question asks respondents if they attended a community meeting in the past year and if they would do so, if they had the chance to. The following answer options are provided: no, would never do this [0], no, would do it if I had the chance [1], yes, once or twice [2], yes, several times [3] and yes, often [4].

- *Raise Issue*: The question asks respondents if they joined others to raise an issue in the past year and if they would do so, if they had the chance to. The following answer options are provided: no, would never do this [0], no, would do it if I had the chance [1], yes, once or twice [2], yes, several times [3] and yes, often [4].

- *Attend Demonstration/Protest*: The question asks respondents if they attended a demonstration or protest march in the past year and if they would do so, if they had the chance to. The following answer options are provided: no, would never do this [0], no, would do it if I had the chance [1], yes, once or twice [2], yes, several times [3] and yes, often [4].

Interest in Public Affairs: The question asks respondents how interested they are in public affairs. The following answer options are provided: not at all interested [0], not very interested [1], somewhat interested [2] and very interested [3]. The question was not asked in rounds two, seven, and eight with comparable answer options.

News [scale]: Mean scale variable combining five indicator variables. The questions ask respondents they get news from the radio, television, newspaper, social media and the Internet. Cronbach's Alpha is 0.74 for the whole sample.

- *Radio News*: The question asks respondents how often they get news from the radio. The following answer options are provided: never [0], less than once a month [1], a few times a month [2], a few times a week [3] and every day [4].

- *TV News*: The question asks respondents how often they get news from the television. The following answer options are provided: never [0], less than once a month [1], a few times a month [2], a few times a week [3] and every day [4].

- *Newspaper News*: The question asks respondents how often they get news from the newspaper. The following answer options are provided: never [0], less than once a month [1], a few times a month [2], a few times a week [3] and every day [4].

- *Internet News*: The question asks respondents how often they get news from the Internet. The following answer options are provided: never [0], less than once a month [1], a few times a month [2], a few times a week [3] and every day [4]. The question was not asked in rounds two, three and four.

- *Social Media News*: The question asks respondents how often they get news from the social media. The following answer options are provided: never [0], less than once a month [1], a few times a month [2], a few times a week [3] and every day [4]. The question was not asked in rounds two, three, four and five.

Variables measuring Political Attitudes:

Corruption [scale]: Mean scale variable combining eight indicator variables. The questions ask respondents if they think that the president and officials in the office, members of parliament, governmental officials, local government councilors, district chief executives, the police, tax officials and judges as well as magistrates are involved in corruption and, if so, how many of them. Cronbach's Alpha is 0.91 for the whole sample.

- *Office of Presidency Corruption*: The question asks respondents if they think that the president and officials in the office are involved in corruption and, if so, how many of them. The following answer options are provided: none [0], some of them [1], most of them [2] and all of them [3].

- *Member of Parliament Corruption*: The question asks respondents if they think that members of parliament and elected leaders are involved in corruption and, if so, how many of them.

The following answer options are provided: none [0], some of them [1], most of them [2] and all of them [3].

- *Governmental Official Corruption*: The question asks respondents if they think that government officials and civil servants are involved in corruption and, if so, how many of them. The following answer options are provided: none [0], some of them [1], most of them [2] and all of them [3].

- *Local Government Councilor*: The question asks respondents if they think that local government councilors are involved in corruption and, if so, how many of them. The following answer options are provided: none [0], some of them [1], most of them [2] and all of them [3]. The question was not asked in round two.

- *District Chief Executive Corruption*: The question asks respondents if they think that district chief executives are involved in corruption and, if so, how many of them. The following answer options are provided: none [0], some of them [1], most of them [2] and all of them [3]. The question was not asked in rounds two, three, four and seven.

- *Police Corruption*: The question asks respondents if they think that the police is involved in corruption and, if so, how many of them. The following answer options are provided: none [0], some of them [1], most of them [2] and all of them [3].

- *Tax Officials Corruption*: The question asks respondents if they think that tax officials are involved in corruption and, if so, how many of them. The following answer options are provided: none [0], some of them [1], most of them [2] and all of them [3]. The question was not asked in rounds two and seven.

- *Judges/Magistrates Corruption*: The question asks respondents if they think that judges and magistrates are involved in corruption and, if so, how many of them. The following answer options are provided: none [0], some of them [1], most of them [2] and all of them [3].

Country's Present Economic Condition: The question asks respondents how they would describe the present economic conditions of Ghana. The following answer options are provided: very bad [0], fairly bad [1], neither good nor bad [2], fairly good [3] and very good [4].

Direction of the Country: The question asks respondents if they think that Ghana is going in the wrong [0] or right [1] direction. The question was not asked in rounds two, three, and four.

Officials Unpunished: The question asks respondents how often they think officials that commit crimes go unpunished. The following answer options are provided: never [0], rarely [1], often [2] and always [3]. The question was not asked in rounds two and three.

Responsibility of Well-Being: The question asks respondents which statement they rather agree with: A = People should look after themselves and be responsible for their own success in life or B = The government should bear the main responsibility for the well-being of people. The following answer options are provided: agree very strongly with A [0], agree with A [1], agree with neither [2], agree with B [3] and agree very strongly with B [4]. The question was not asked in rounds four, five, six, seven and eight.

Treated Unfairly: The question asks respondents how often their ethnic group is treated unfairly by the government. The following answer options are provided: never [0], sometimes [1], often [2] and always [3].

Performance [scale]: Mean scale variable combining four indicator variables. The questions ask respondents if they approve or disapprove of the way the president, their member of parliament, their elected assembly man/woman and district chief executive have performed their jobs over the past twelve months. Cronbach's Alpha is 0.80 for the whole sample.

- *President Performance*: The question asks respondents if they approve or disapprove of the way the president has performed his/her job over the past twelve months. The following answer options are provided: strongly disapprove [0], disapprove [1], approve [2] and strongly approve [3].

- *Member of Parliament Performance*: The question asks respondents if they approve or disapprove of the way their member of parliament has performed his/her job over the past twelve months. The following answer options are provided: strongly disapprove [0], disapprove [1], approve [2] and strongly approve [3].

- *Local Government Councilor Performance*: The question asks respondents if they approve or disapprove of the way their regional minister/assembly man or woman/local government councilor has performed his/her job over the past twelve months. The following answer options are provided: strongly disapprove [0], disapprove [1], approve [2] and strongly approve [3].

- *District Chief Executive Performance*: The question asks respondents if they approve or

disapprove of the way their district chief executive has performed his/her job over the past twelve months. The following answer options are provided: strongly disapprove [0], disapprove [1], approve [2] and strongly approve [3]. The question was not asked in rounds three, four, and seven.

Rejection [scale]: Mean scale variable combining three indicator variables. The questions ask respondents if they reject one-party rule, military rule and one-man rule in Ghana. Cronbach's Alpha is 0.56 for the whole sample.

- *One-Party Rule Rejection*: The question asks if respondents would approve or disapprove that only one political party is allowed to stand for election and hold office. The following answer options are provided: strongly disapprove [0], disapprove [1], neither approve nor disapprove [2], approve [3] and strongly approve [4].

- *Military Rule Rejection*: The question asks if respondents would approve or disapprove that the army comes in to govern Ghana. The following answer options are provided: strongly disapprove [0], disapprove [1], neither approve nor disapprove [2], approve [3] and strongly approve [4].

- *One-Man Rule Rejection*: The question asks if respondents would approve or disapprove that the elections and the parliament are abolished so that the president can decide everything. The following answer options are provided: strongly disapprove [0], disapprove [1], neither approve nor disapprove [2], approve [3] and strongly approve [4].

Support for Democracy: The question asks respondents which statement they rather agree with: A = Democracy is preferable to any other kind of government, B = In some circumstances, a non-democratic government can be preferable, and C = For someone like me, it doesn't matter what kind of government we have.. The following answer options are provided: statement C [0], statement B [1]and statement A [2].

	President	Parliament	Elec. Com.	Loc. Council	Ruling Party	Opposition	Police	Army	Courts/Judges	Tax Dep.	Satis. Dem.	Overall Trust
President		0.614 (<.001)	0.540 (<.001)	0.475 (<.001)	0.747 (<.001)	0.071 (<.001)	0.380 (<.001)	0.338 (<.001)	0.381 (<.001)	0.474 (<.001)	0.279 (<.001)	0.739 (<.001)
Parliament			0.583 (<.001)	0.565 (<.001)	0.577 (<.001)	0.257 (<.001)	0.432 (<.001)	0.338 (<.001)	0.465 (<.001)	0.544 (<.001)	0.226 (<.001)	0.776 (<.001)
Elec. Com.				0.555 (<.001)	0.530 (<.001)	0.255 (<.001)	0.423 (<.001)	0.387 (<.001)	0.481 (<.001)	0.540 (<.001)	0.223 (<.001)	0.762 (<.001)
Loc. Council					0.502 (<.001)	0.290 (<.001)	0.412 (<.001)	0.323 (<.001)	0.455 (<.001)	0.618 (<.001)	0.185 (<.001)	0.731 (<.001)
Ruling Party						0.110 (<.001)	0.397 (<.001)	0.327 (<.001)	0.400 (<.001)	0.487 (<.001)	0.270 (<.001)	0.746 (<.001)
Opposition							0.279 (<.001)	0.272 (<.001)	0.285 (<.001)	0.308 (<.001)	0.010 (.318)	0.447 (<.001)
Police								0.398 (<.001)	0.559 (<.001)	0.485 (<.001)	0.158 (<.001)	0.691 (<.001)
Army									0.461 (<.001)	0.362 (<.001)	0.107 (<.001)	0.618 (<.001)
Courts/Judges										0.541 (<.001)	0.167 (<.001)	0.718 (<.001)
Tax Dep.											0.166 (<.001)	0.683 (<.001)
Satis. Dem.												0.259 (<.001)
Overall Trust												

Computed correlation used pearson-method with pairwise-deletion.

(a) Pearson

	President	Parliament	Elec. Com.	Loc. Council	Ruling Party	Opposition	Police	Army	Courts/Judges	Tax Dep.	Satis. Dem.	Overall Trust
President		0.610 (<.001)	0.534 (<.001)	0.467 (<.001)	0.745 (<.001)	0.067 (<.001)	0.374 (<.001)	0.330 (<.001)	0.378 (<.001)	0.473 (<.001)	0.292 (<.001)	0.735 (<.001)
Parliament			0.582 (<.001)	0.563 (<.001)	0.577 (<.001)	0.256 (<.001)	0.430 (<.001)	0.321 (<.001)	0.463 (<.001)	0.543 (<.001)	0.232 (<.001)	0.774 (<.001)
Elec. Com.				0.550 (<.001)	0.528 (<.001)	0.256 (<.001)	0.421 (<.001)	0.374 (<.001)	0.480 (<.001)	0.538 (<.001)	0.227 (<.001)	0.759 (<.001)
Loc. Council					0.499 (<.001)	0.291 (<.001)	0.408 (<.001)	0.300 (<.001)	0.452 (<.001)	0.618 (<.001)	0.185 (<.001)	0.723 (<.001)
Ruling Party						0.109 (<.001)	0.394 (<.001)	0.315 (<.001)	0.400 (<.001)	0.488 (<.001)	0.281 (<.001)	0.745 (<.001)
Opposition							0.277 (<.001)	0.252 (<.001)	0.285 (<.001)	0.306 (<.001)	0.006 (.520)	0.418 (<.001)
Police								0.369 (<.001)	0.555 (<.001)	0.479 (<.001)	0.167 (<.001)	0.683 (<.001)
Army									0.446 (<.001)	0.327 (<.001)	0.107 (<.001)	0.578 (<.001)
Courts/Judges										0.538 (<.001)	0.167 (<.001)	0.708 (<.001)
Tax Dep.											0.165 (<.001)	0.670 (<.001)
Satis. Dem.												0.268 (<.001)
Overall Trust												

Computed correlation used spearman-method with pairwise-deletion.

(b) Spearman

Table B.I: Correlation Coefficients of Dependent Variables

	District Distance	Overall Trust	News	Performance	Corruption	Poverty	Education	Employed	Econ. Cond.	Unfair Treat.	Age
District Distance		0.102 (<.001)	-0.254 (<.001)	0.102 (<.001)	-0.067 (<.001)	0.093 (<.001)	-0.226 (<.001)	-0.121 (<.001)	0.062 (<.001)	-0.001 (.962)	0.026 (.068)
Overall Trust			-0.059 (<.001)	0.463 (<.001)	-0.327 (<.001)	-0.008 (.408)	-0.130 (<.001)	-0.021 (.028)	0.259 (<.001)	-0.147 (<.001)	0.122 (<.001)
News				0.013 (.175)	-0.011 (.270)	-0.146 (<.001)	0.472 (<.001)	0.041 (<.001)	0.128 (<.001)	-0.004 (.708)	-0.171 (<.001)
Performance					-0.318 (<.001)	-0.061 (<.001)	-0.050 (<.001)	-0.031 (.001)	0.325 (<.001)	-0.161 (<.001)	0.077 (<.001)
Corruption						0.042 (<.001)	0.042 (<.001)	0.060 (<.001)	-0.190 (<.001)	0.138 (<.001)	-0.061 (<.001)
Poverty							-0.255 (<.001)	-0.071 (<.001)	-0.260 (<.001)	0.122 (<.001)	0.040 (<.001)
Education								0.069 (<.001)	0.067 (<.001)	-0.024 (.016)	-0.205 (<.001)
Employed									-0.046 (<.001)	0.011 (.280)	0.004 (.708)
Econ. Cond.										-0.122 (<.001)	-0.005 (.615)
Unfair Treat.											-0.000 (.969)
Age											

Computed correlation used pearson-method with pairwise-deletion.

(a) Pearson

	District Distance	Overall Trust	News	Performance	Corruption	Poverty	Education	Employed	Econ. Cond.	Unfair Treat.	Age
District Distance		0.096 (<.001)	-0.247 (<.001)	0.095 (<.001)	-0.047 (.001)	0.072 (<.001)	-0.241 (<.001)	-0.058 (<.001)	0.018 (.206)	-0.061 (<.001)	0.051 (<.001)
Overall Trust			-0.057 (<.001)	0.462 (<.001)	-0.297 (<.001)	-0.014 (.136)	-0.136 (<.001)	-0.019 (.048)	0.264 (<.001)	-0.136 (<.001)	0.116 (<.001)
News				0.005 (.586)	-0.009 (.346)	-0.163 (<.001)	0.455 (<.001)	0.043 (<.001)	0.130 (<.001)	0.008 (.423)	-0.166 (<.001)
Performance					-0.302 (<.001)	-0.062 (<.001)	-0.054 (<.001)	-0.029 (.002)	0.332 (<.001)	-0.142 (<.001)	0.074 (<.001)
Corruption						0.036 (<.001)	0.034 (.001)	0.053 (<.001)	-0.190 (<.001)	0.124 (<.001)	-0.052 (<.001)
Poverty							-0.259 (<.001)	-0.085 (<.001)	-0.274 (<.001)	0.106 (<.001)	0.032 (.001)
Education								0.067 (<.001)	0.058 (<.001)	-0.017 (.094)	-0.218 (<.001)
Employed									-0.047 (<.001)	0.012 (.236)	0.089 (<.001)
Econ. Cond.										-0.117 (<.001)	-0.012 (.204)
Unfair Treat.											-0.008 (.398)
Age											

Computed correlation used spearman-method with pairwise-deletion.

(b) Spearman

Table B.II: Correlation Coefficients of Important Independent Variables

Statistic	N	Mean	St. Dev.	Min	Median	Max
President	10,732	1.801	1.150	0	2	3
Parliament	10,587	1.494	1.064	0	2	3
Elec. Com.	10,536	1.603	1.083	0	2	3
Loc. Council	10,373	1.356	1.041	0	1	3
Ruling Party	10,633	1.564	1.135	0	2	3
Opposition	10,481	1.349	1.064	0	1	3
Police	10,795	1.295	1.117	0	1	3
Army	9,760	1.962	1.063	0	2	3
Courts/Judges	10,561	1.543	1.065	0	2	3
Tax Dep.	5,696	1.188	1.018	0	1	3
Satis. Dem.	10,225	2.939	0.946	0	3	4
Overall Trust	10,929	1.553	0.754	0.000	1.556	3.000

Table B.III: Summary Statistics of Dependent Variables

Statistic	N	Mean	St. Dev.	Min	Median	Max
District Distance	5,056	142,860.800	147,159.500	4,564.834	107,482.600	620,410.900
News	11,012	1.813	1.049	0.000	1.600	4.000
Performance	10,767	1.531	0.782	0.000	1.667	3.000
Corruption	10,529	1.449	0.668	0.000	1.333	3.000
Poverty	11,022	0.912	0.721	0.000	0.800	4.000
Education	10,999	2.514	1.780	0	3	8
Employed	10,970	1.897	1.194	0	2	3
Econ. Cond.	10,823	1.322	1.340	0	1	4
Unfair Treat.	10,170	0.599	0.914	0	0	3
Age	10,938	38.861	15.638	18	35	105

Table B.IV: Summary Statistics of Important Independent Items, Satisfaction with Democracy, and Key Instrumental Variable

Appendix C: Explanation of Ethnicity-Level Variables

The following variables stem from data set of Nunn and Wantchekon (2011). The provided definitions explain all ethnicity-based variables employed in (parts of) the empirical analysis.

Key and Instrumental Variables:

Ethnicity-Level Distance to the Coast: The variable states the distance from the centroid of historical living area of ethnic group to the nearest point at the coast.

Ethnicity-Level Exports of Slaves: The variables states the number of people taken as slaves from each ethnic group. The number is standardized by the historical living area of each ethnic group.

Ethnicity-Level Control Variables:

Malaria Suitability Index: The variable states on a scale how suitable the historical land of an ethnic group is for mosquitoes transferring diseases like Malaria.

Migration Pattern: The variable states whether ethnic groups used to be nomadic or had permanent settlements. In the case of Ghana, the variable can take on the following values: compact and relatively permanent, neighborhoods of dispersed family homesteads, and complex settlements.

Hierarchy Levels: The variable states the number of jurisdictional hierarchies beyond the local community for each ethnic group. In the case of Ghana, the variable can take on the following values: no levels, one level, two levels and three levels.

Contact to Railway Network: The binary variable takes on the value 1 if parts of the railway network was built on the historical land of an ethnic group. If not, it takes on the value 0.

Contact to Explorers: The binary variable takes on the value 1 if a European explorer traveled through the historical land of an ethnic group. If not, it takes on the value 0.

Religious Missions: The variable states the number of religious missions for each ethnic group. The variable is standardized by their historical living area to calculate the missions per square kilometer.

Distance to Saharan Node: The variable states the average distance to the closest city in the Saharan trade network from an ethnic group's historical living area.

Distance to Saharan Line: The variable states the average distance to the closest route of the Saharan trade network from an ethnic group's historical living area.

Reliance on Fishing: The variable states the fraction of food from fish for each ethnic group to measure how reliant they are on it.

Appendix D: Further Results and Robustness Checks

				Dependent Variable:				
				Overall Level of Political Trust (without Tax Department)				
				Instrumental Variable				OLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Slave exports per km^2	−0.033**	−0.024	−0.014	−0.014	−0.011	−0.026	0.002	0.003**
	(0.016)	(0.028)	(0.021)	(0.021)	(0.022)	(0.033)	(0.002)	(0.001)
Intercept	2.063***	2.141***	1.999***	2.136***	2.094***	1.880***	1.896***	2.074***
	(0.152)	(0.318)	(0.328)	(0.339)	(0.375)	(0.459)	(0.308)	(0.107)
Central		0.132	0.081	0.067	0.031	−0.010	0.056	0.117***
		(0.134)	(0.101)	(0.102)	(0.096)	(0.150)	(0.039)	(0.033)
Western		−0.072	−0.130	−0.116	−0.134	−0.192	−0.157**	−0.084***
		(0.120)	(0.092)	(0.094)	(0.089)	(0.128)	(0.068)	(0.012)
Volta		0.439	0.116	0.134	0.008	0.290	−0.275***	−0.152**
		(0.639)	(0.458)	(0.451)	(0.465)	(0.717)	(0.057)	(0.067)
Eastern		0.202*	0.110	0.095	0.062	0.002	0.014	0.008
		(0.110)	(0.072)	(0.076)	(0.065)	(0.117)	(0.041)	(0.019)
Ashanti		−0.056	−0.086	−0.100	−0.095	−0.118	−0.061	−0.046***
		(0.151)	(0.109)	(0.109)	(0.094)	(0.138)	(0.039)	(0.010)
Brong Ahafo		0.133	0.083	0.047	0.050	−0.117	−0.062	−0.008
		(0.131)	(0.100)	(0.101)	(0.095)	(0.144)	(0.041)	(0.017)
Northern		0.177	0.221	0.196	0.181	−0.097	0.062	0.173**
		(0.289)	(0.194)	(0.196)	(0.203)	(0.270)	(0.098)	(0.071)
Upper East		0.203	0.230	0.197	0.173	0.158	0.157	0.152
		(0.186)	(0.172)	(0.149)	(0.135)	(0.181)	(0.137)	(0.100)
Upper West		0.463	0.425	0.387	0.313	−0.182	−0.032	−0.007
		(0.312)	(0.262)	(0.257)	(0.291)	(0.392)	(0.173)	(0.045)
2008		−0.206***	−0.195***	−0.203***	−0.190***	−0.219***	−0.196***	−0.201***
		(0.041)	(0.040)	(0.040)	(0.041)	(0.044)	(0.037)	(0.039)
2012		−0.435***	−0.409***	−0.445***	−0.398***	−0.238***	−0.211***	−0.232***
		(0.056)	(0.054)	(0.053)	(0.060)	(0.053)	(0.044)	(0.054)
2014								−0.350***
								(0.064)
Age			0.008**	0.009**	0.006	0.003	0.003	−0.003***
			(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.0003)
Age^2			−0.00004	−0.0001	−0.00004	−0.00002	−0.00002	0.00004***
			(0.00004)	(0.00004)	(0.00005)	(0.00004)	(0.00004)	(0.00001)
Muslim			−0.090	−0.106	−0.123	−0.167	−0.080	−0.034
			(0.130)	(0.127)	(0.134)	(0.132)	(0.083)	(0.051)
Christian			−0.049	−0.041	−0.063	−0.067	−0.075	−0.001
			(0.082)	(0.083)	(0.081)	(0.073)	(0.068)	(0.024)
Other religion			−0.110	−0.126	−0.116	−0.130	−0.140	0.010
			(0.122)	(0.123)	(0.131)	(0.123)	(0.115)	(0.047)
Female			−0.053**	−0.083***	−0.049*	−0.045	−0.047*	−0.073***
			(0.022)	(0.024)	(0.027)	(0.028)	(0.027)	(0.012)
Urban			−0.129***	−0.120***	−0.087**	−0.096**	−0.083***	−0.070***
			(0.038)	(0.039)	(0.037)	(0.040)	(0.027)	(0.025)
Education (L)				−0.090	−0.149	−0.057	−0.082	−0.018
				(0.109)	(0.126)	(0.104)	(0.093)	(0.039)
Employment (L)				−0.035	−0.055*	0.003	−0.012	0.003
				(0.028)	(0.031)	(0.034)	(0.026)	(0.011)
Poverty				−0.110***	−0.114***	0.002	−0.001	−0.001
				(0.018)	(0.019)	(0.020)	(0.019)	(0.016)
Voted					0.028	0.063*	0.074**	0.074***
					(0.036)	(0.036)	(0.034)	(0.022)
Close to NDC					0.047	0.083	0.029	0.088*
					(0.064)	(0.085)	(0.038)	(0.053)
Close to NPP					−0.004	0.012	0.039	0.026***
					(0.043)	(0.046)	(0.026)	(0.003)
Close to other party					−0.022	0.071	0.051	0.052
					(0.071)	(0.083)	(0.065)	(0.068)

				Dependent Variable:			
				Overall Level of Political Trust (without Tax Department)			
				Instrumental Variable			*OLS*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Member of rel. group (L)					0.058* (0.034)	0.048 (0.037)	0.054 (0.033)	0.033 (0.025)
Member of community (L)					−0.055 (0.042)	−0.032 (0.043)	−0.027 (0.039)	−0.054*** (0.002)
Contact					0.040* (0.024)	−0.010 (0.024)	−0.001 (0.020)	0.005 (0.011)
Participation					0.036** (0.016)	0.029 (0.018)	0.030* (0.017)	0.041*** (0.010)
Pol. interest (L)					0.119*** (0.032)	0.096*** (0.033)	0.084*** (0.028)	0.083*** (0.022)
News					−0.012 (0.018)	−0.020 (0.023)	−0.009 (0.016)	−0.022*** (0.007)
Corruption						−0.167*** (0.023)	−0.168*** (0.022)	−0.236*** (0.025)
Econ. cond. (L)						0.196*** (0.037)	0.202*** (0.035)	0.210*** (0.017)
Unfair treat. (L)						−0.108*** (0.040)	−0.097*** (0.036)	−0.104*** (0.038)
Performance						0.341*** (0.019)	0.344*** (0.017)	0.321*** (0.027)
Rejection						0.018 (0.016)	0.022 (0.015)	0.014 (0.012)
Support for democracy (L)						−0.023 (0.037)	−0.019 (0.036)	0.007 (0.020)
Explorer contact							−0.021 (0.063)	−0.060 (0.043)
Railway contact							0.088 (0.102)	0.156* (0.085)
Dist. Saharan node							−0.0005 (0.0003)	−0.001*** (0.0002)
Dist. Saharan line							-	-
Malaria ecology index							-	-
Migration (L)							-	-
Fishing							-	-
Mission area							-	-
Hierarchy levels (L)							-	-
Fixed effects		✓	✓	✓	✓	✓	✓	✓
Living situation			✓	✓	✓	✓	✓	✓
Economic success				✓	✓	✓	✓	✓
Political interest and participation					✓	✓	✓	✓
Political attitudes						✓	✓	✓
Ethnicity controls							(✓)	(✓)
Observations	3,843	3,843	3,795	3,776	3,585	3,064	3,064	4,491
R²	−0.213	0.020	0.089	0.108	0.133	0.241	0.342	0.411
Adjusted R²	−0.213	0.017	0.084	0.100	0.122	0.226	0.329	0.403
Residual Std. Error	0.800 (df = 3841)	0.720 (df = 3830)	0.694 (df = 3775)	0.688 (df = 3744)	0.678 (df = 3537)	0.624 (df = 3004)	0.581 (df = 3001)	0.606 (df = 4427)
F Statistic								49.097*** (df = 63; 4427)
Weak Instrument (Wald Statistic)	183.75*** (df = 3841)	23.880*** (df = 3830)	28.046*** (df = 3775)	27.538*** (df = 3744)	22.143*** (df = 3537)	13.498*** (df = 3004)	-	
Wu-Hausman	41.29*** (df = 3840)	2.127 (df = 3829)	0.857 (df = 3774)	0.932 (df = 3743)	0.496 (df = 3536)	2.061 (df = 3003)	-	

Note: For ordinal variables, only the coefficients for linear polynomial functions (L) are reported due to space reasons. Significance levels: *p<0.1; **p<0.05; ***p<0.01

Table D.I: Model Comparison for Hypothesis 1 (H1) with all Coefficients

				Dependent Variable:				
				Level of Satisfaction with Democracy				
				Instrumental Variable				*OLS*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Overall level of	0.562***	1.583	2.351	2.126	2.381	0.959	2.622	0.159***
political trust	(0.158)	(1.084)	(2.387)	(2.394)	(4.236)	(0.700)	(2.659)	(0.018)
Intercept	2.103***	0.138	−1.475	−1.164	−1.699	1.178	−1.420	2.749***
	(0.268)	(2.122)	(4.570)	(4.840)	(8.714)	(1.197)	(4.381)	(0.131)
Central		−0.165	−0.155	−0.100	−0.042	0.060	−0.046	−0.019
		(0.267)	(0.358)	(0.334)	(0.309)	(0.083)	(0.178)	(0.113)
Western		−0.089	0.067	0.043	0.166	0.088	0.351	0.037
		(0.125)	(0.251)	(0.213)	(0.523)	(0.142)	(0.478)	(0.114)
Volta		0.064	0.300	0.244	0.377	0.147	0.607	−0.031
		(0.114)	(0.409)	(0.366)	(0.901)	(0.175)	(0.699)	(0.027)
Eastern		−0.109	−0.088	−0.046	0.028	0.048	0.046	−0.140***
		(0.245)	(0.298)	(0.251)	(0.166)	(0.071)	(0.113)	(0.039)
Ashanti		0.072	0.200	0.200	0.253	0.059	0.150	−0.029
		(0.103)	(0.164)	(0.181)	(0.428)	(0.081)	(0.195)	(0.079)
Brong Ahafo		−0.125	−0.118	−0.049	−0.022	0.058	0.142	−0.055
		(0.264)	(0.361)	(0.279)	(0.315)	(0.092)	(0.200)	(0.116)
Northern		−0.547	−0.599	−0.499	−0.444	−0.158	−0.231	−0.056
		(0.363)	(0.549)	(0.595)	(0.839)	(0.137)	(0.320)	(0.087)
Upper East		−0.050	0.052	0.105	0.219	0.177	−0.132	0.291
		(0.213)	(0.210)	(0.187)	(0.222)	(0.115)	(0.709)	(0.255)
Upper West		−0.129	−0.237	−0.115	−0.116	0.281*	0.304	0.193**
		(0.317)	(0.547)	(0.495)	(0.738)	(0.159)	(0.484)	(0.097)
2008		0.377*	0.484	0.440	0.483	0.241	0.560	0.074***
		(0.216)	(0.426)	(0.449)	(0.688)	(0.156)	(0.543)	(0.024)
2012		0.449	0.845	0.733	0.882	−0.086	0.353	−0.289***
		(0.633)	(1.335)	(1.395)	(2.317)	(0.191)	(0.729)	(0.034)
2014								−0.492***
								(0.028)
Ewe/Anglo		−0.041	0.130	0.036	0.149	−0.196	−0.211	−0.272***
		(0.221)	(0.464)	(0.371)	(0.692)	(0.135)	(0.232)	(0.064)
Ga/Adangbe		0.223	0.554	0.474	0.607	0.115	0.486	−0.144**
		(0.406)	(0.918)	(0.869)	(1.486)	(0.213)	(0.701)	(0.063)
Dagarti		−0.570	−0.842	−0.664	−0.590	−0.101	−0.299	0.033
		(0.570)	(1.061)	(0.963)	(1.349)	(0.138)	(0.537)	(0.081)
Dagomba		−0.142	0.027	0.073	0.165	−0.153	0.190	−0.444***
		(0.287)	(0.505)	(0.572)	(1.004)	(0.225)	(0.599)	(0.136)
Other ethnicity		0.051	0.167	0.133	0.173	−0.092	-	-
		(0.214)	(0.416)	(0.393)	(0.633)	(0.112)		
2008×Ewe/Anglo		0.134	0.176	0.201	0.248	0.182	0.399	0.062*
		(0.220)	(0.299)	(0.310)	(0.476)	(0.200)	(0.401)	(0.033)
2012×Ewe/Anglo		−0.005	−0.313	−0.142	−0.278	0.409**	0.366	0.381***
		(0.404)	(0.894)	(0.744)	(1.406)	(0.172)	(0.287)	(0.008)
2014×Ewe/Anglo								0.453***
								(0.015)
2008×Ga/Adangbe		−0.087	−0.160	−0.138	−0.126	−0.070	−0.218	0.072***
		(0.261)	(0.414)	(0.377)	(0.487)	(0.181)	(0.434)	(0.020)
2012×Ga/Adangbe		−0.595	−1.117	−0.955	−1.078	−0.155	−0.605	0.094***
		(0.714)	(1.575)	(1.519)	(2.582)	(0.251)	(0.848)	(0.025)
2014×Ga/Adangbe								0.270***
								(0.013)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
								Dependent Variable:
					Level of Satisfaction with Democracy			
				Instrumental Variable				*OLS*
2008×Dagarti		0.580	0.946	0.645	0.700	0.025	0.212	−0.112*
		(0.729)	(1.407)	(1.106)	(1.738)	(0.293)	(0.522)	(0.060)
2012×Dagarti		-	-	-	-	-	-	−0.092***
								(0.025)
2014×Dagarti								-
2008×Dagomba		0.020	−0.172	−0.139	−0.119	−0.033	−0.349	0.112***
		(0.284)	(0.526)	(0.519)	(0.685)	(0.234)	(0.627)	(0.026)
2012×Dagomba		0.178	−0.233	−0.136	−0.328	0.529**	0.079	0.741***
		(0.513)	(1.129)	(1.124)	(2.233)	(0.229)	(0.774)	(0.013)
2008×other ethnicity		−0.069	−0.093	−0.042	−0.032	0.120	-	-
		(0.163)	(0.258)	(0.221)	(0.256)	(0.108)		
2012×other ethnicity		−0.332	−0.660	−0.533	−0.629	0.116	-	-
		(0.477)	(1.044)	(0.997)	(1.764)	(0.142)		
2014×other ethnicity								0.715***
								(0.029)
Age			−0.013	−0.011	−0.008	0.005	0.005	−0.001
			(0.022)	(0.022)	(0.021)	(0.005)	(0.011)	(0.002)
Age^2			0.00004	0.0001	0.00004	−0.0001	−0.0001	0.00001
			(0.0001)	(0.0002)	(0.0001)	(0.0001)	(0.0001)	(0.00001)
Muslim			0.296	0.266	0.305	0.122	0.181	−0.097
			(0.301)	(0.311)	(0.659)	(0.150)	(0.347)	(0.194)
Christian			0.285	0.229	0.234	0.106	0.197	−0.087
			(0.241)	(0.208)	(0.392)	(0.130)	(0.299)	(0.124)
Other religion			0.283	0.309	0.285	0.146	0.346	−0.056
			(0.269)	(0.267)	(0.390)	(0.145)	(0.465)	(0.115)
Female			0.037	0.081	0.008	−0.026	0.042	−0.020
			(0.103)	(0.169)	(0.122)	(0.037)	(0.128)	(0.019)
Urban			0.229	0.164	0.121	0.014	0.137	−0.071***
			(0.288)	(0.258)	(0.306)	(0.066)	(0.234)	(0.017)
Education (L)				−0.136	−0.046	−0.403***	−0.210	−0.409***
				(0.364)	(0.768)	(0.136)	(0.279)	(0.097)
Employment (L)				0.075	0.113	0.035	0.032	0.080***
				(0.088)	(0.211)	(0.035)	(0.090)	(0.009)
Poverty				0.045	0.078	−0.101***	−0.101*	−0.061**
				(0.257)	(0.475)	(0.027)	(0.053)	(0.024)
Voted					−0.034	−0.053	−0.244	−0.014
					(0.153)	(0.076)	(0.248)	(0.023)
Close to NDC					−0.082	−0.062	−0.087	0.038**
					(0.140)	(0.045)	(0.130)	(0.018)
Close to NPP					0.077	0.096*	0.048	0.088***
					(0.175)	(0.053)	(0.129)	(0.021)
Close to other party					0.009	−0.035	−0.194	0.096***
					(0.158)	(0.085)	(0.225)	(0.028)
Member of rel. group (L)					−0.029	0.003	−0.090	0.029
					(0.166)	(0.063)	(0.184)	(0.029)
Member of community (L)					0.086	−0.012	0.049	0.010
					(0.189)	(0.068)	(0.133)	(0.051)

XXVI

							Dependent Variable:	
					Level of Satisfaction with Democracy			
			Instrumental Variable					*OLS*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Contact					−0.164	−0.042	−0.047	−0.034
					(0.283)	(0.027)	(0.054)	(0.029)
Participation					−0.102	−0.028	−0.094	−0.018**
					(0.187)	(0.035)	(0.098)	(0.009)
Pol. interest (L)					−0.080	0.102	−0.054	0.161***
					(0.558)	(0.072)	(0.254)	(0.020)
News					0.046	−0.009	0.009	0.012
					(0.132)	(0.023)	(0.057)	(0.029)
Corruption						0.105	0.392	−0.004
						(0.127)	(0.466)	(0.015)
Econ. cond. (L)						−0.038	−0.357	0.155***
						(0.138)	(0.513)	(0.032)
Unfair treat. (L)						−0.068	0.111	−0.171***
						(0.081)	(0.248)	(0.018)
Performance						−0.176	−0.739	0.082**
						(0.248)	(0.895)	(0.035)
Rejection						−0.038	−0.071	−0.019***
						(0.029)	(0.072)	(0.006)
Support for democracy (L)						0.233***	0.275**	0.193***
						(0.049)	(0.131)	(0.022)
Explorer contact							-	-
Railway contact							-	-
Dist. Saharan node							-	-
Dist. Saharan line							-	-
Malaria ecology index							-	-
Migration (L)							-	-
Fishing							-	-
Mission area							-	-
Hierarchy levels (L)							-	-
Fixed effects		✓	✓	✓	✓	✓	✓	✓
Living situation			✓	✓	✓	✓	✓	✓
Economic success				✓	✓	✓	✓	✓
Political interest and participation					✓	✓	✓	✓
Political attitudes						✓	✓	✓
Ethnicity controls							(✓)	(✓)
Observations	5,254	4,476	4,432	4,412	4,204	3,695	3,029	3,065
R^2	0.045	−0.878	−2.389	−1.849	−2.402	−0.047	−2.377	0.244
Adjusted R^2	0.045	−0.889	−2.415	−1.879	−2.452	−0.068	−2.457	0.201
Residual Std. Error	0.890 (df = 5252)	1.210 (df = 4449)	1.622 (df = 4398)	1.490 (df = 4366)	1.624 (df = 4142)	0.892 (df = 3621)	1.617 (df = 2958)	0.777 (df = 2898)
F Statistic								5.647*** (df = 166; 2898)
Weak Instrument (Wald Statistic)	103.133*** (df = 5252)	3.114* (df = 4449)	1.236 (df = 4398)	0.986 (df = 4366)	0.384 (df = 4142)	4.727** (df = 3621)	1.225 (df = 2958)	
Wu-Hausman	3.086* (df = 5251)	3.514* (df = 4448)	3.520* (df = 4397)	2.269 (df = 4365)	1.179 (df = 4141)	1.542 (df = 3620)	4.032** (df = 2957)	

Note: For ordinal variables, only the coefficients for linear polynomial functions (L) are reported due to space reasons. Significance levels: *p<0.1; **p<0.05; ***p<0.01

Table D.II: Model Comparison for Hypothesis 2 (H2) with all Coefficients

	Dependent Variable:							
	Political Trust (without Tax Dep.)	Satisfaction with Democracy	Political Trust (without Tax Dep.)	Satisfaction with Democracy	Political Trust (without Tax Dep.)	Satisfaction with Democracy	Political Trust (without Tax Dep.)	Satisfaction with Democracy
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Slave exports per km^2	−0.054 (0.058)		−0.022 (0.024)		−0.019 (0.047)		−0.019 (0.031)	
Political trust (without tax dep.)		1.031 (0.637)		0.818 (0.595)		2.104 (1.922)		1.632 (1.192)
Religiosity	✓	✓						
Officials unpunished	✓	✓						
Linear transf.			✓	✓				
Log transf.					✓	✓		
3rd root transf.							✓	✓
Observations	1,505	1,778	3,448	4,079	3,448	4,079	3,448	4,079
R^2	−0.153	−0.147	0.120	−0.021	0.140	−1.708	0.136	−0.882
Adjusted R^2	−0.185	−0.181	0.110	−0.034	0.131	−1.743	0.126	−0.906
Residual Std. Error	0.783 (df = 1463)	0.943 (df = 1726)	0.677 (df = 3409)	0.890 (df = 4026)	0.669 (df = 3409)	1.449 (df = 4026)	0.671 (df = 3409)	1.208 (df = 4026)
Weak Instrument (Wald Statistic)	8.661*** (df = 1463)	5.814** (df = 1726)	24.449*** (df = 3409)	4.654** (df = 4026)	6.429** (df = 3409)	1.904 (df = 4026)	14.105*** (df = 3409)	3.079* (df = 4026)
Wu-Hausman	3.491* (df = 1462)	2.393 (df = 1725)	2.139 (df = 3408)	0.985 (df = 4025)	0.396 (df = 3408)	4.218** (df = 4025)	0.953 (df = 3408)	3.800* (df = 4025)

Note: All regressions listed in the table use the respective sparse model specification. Significance levels: *p<0.1; **p<0.05; ***p<0.01

Table D.III: Additional Control Variables and Transformations of Instrumental Variable

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