The Death of Distance: Mobile Internet and Political Trust in Africa

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February 6, 2025

Abstract

This paper investigates how distance to the capital city shapes opinions on national politics and whether access to information might mitigate this pattern. We combine geocoded individual-level data from Afrobarometer across 20 Sub-Saharan countries between 2011-2021 that collects information about people's opinion about national politics, with digital maps of mobile internet coverage. First, we exploit modern national borders that arbitrarily divide historical ethnic homelands to estimate the effect of distance to the capital city on national politics opinions. Second, we instrument the mobile internet infrastructure deployment with lightning strike patterns and examine whether the effect of internet expansion varies with distance to the capital city. We show that remote areas have more positive opinions on national politics than areas near capitals, despite limited direct experience with state institutions. They value the country's economic performance more positively and are more willing to vote for the ruling party in future elections. Internet expansion reduces information frictions on government activities that have isolated remote areas in countries with state-controlled media and weak institutions. Their positive opinions decline toward levels observed near capitals. Our findings suggest that physical isolation from capitals need not permanently determine political attitudes. Internet expansion can reshape these long-standing spatial patterns by connecting remote citizens to national politics.

Keywords: Political Accountability; Capital City; Distance; Information Access; Internet; Africa

JEL Code: D02, D10, O10, R10, R20

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We thank Mourichidi Agnidé Assani, Adelaide Baronchelli, Joel Carriolle, Eve Colson-Sihra, Clément De Chaisemartin, Bruno Deffains, Xavier D'Haultfoeuille, Yasmine Elkhateeb, Sanjeev Goyal, Victor Hiller, Daniel Klermann, Paul Maarek, Issa Sanou, and Awa Ambra Seck. We also thank the participants of the 72nd Congress of the French Economic Association (AFSE), the 23rd Louis-André Gérard-Varet Days (LAGV), the Cambridge University's Applied Micro PhD Workshop, the 9th Congress of the French Association for Law and Economics (AFED), and the University Paris-Panthéon-Assas PhD seminar. We thank the Afrobarometer team for providing us with the geolocated data. We also thank the CRED, the LEMMA, the doctoral school EGIC of the University Paris-Pantheon-Assas and the Labex MME-DII for their funding. The authors contributed equally.

1 Introduction

A puzzling phenomenon in political behaviour is that attitudes towards leaders and governments need not correspond to economic outcomes. In the developing world, rural areas tend to show higher government approval than urban areas, despite facing lower economic development and public goods provision (McKay, Jennings and Stoker, 2023; Bland et al., 2023; Brinkerhoff, Wetterberg and Wibbels, 2018). This disconnect can stem from behavioural patterns: citizens may adapt their expectations to local conditions, leading to lower demands on state support in underserved areas (Gottlieb, 2016; McKay, Jennings and Stoker, 2023; Provenzano, 2024; Li, 2004). Cultural factors also shape political attitudes through ethnic ties or clientelist networks that sustain political support independently of performance (Henn, 2023; Adida et al., 2020; Fujiwara and Wantchekon, 2013). Recent work highlights how information frictions can undermine political accountability by preventing citizens from accurately assessing government performance (Bhandari, Larreguy and Marshall, 2023; Chong et al., 2015; Dunning et al., 2019; Larreguy, Marshall and Snyder Jr, 2020; Pande, 2011). Beyond the urban-rural divide, greater distance from the capital city reduces access to political information by limiting direct observation of state activities. This paper investigates how distance to the capital city shapes opinions on national politics and whether access to information might mitigate this pattern.

We combine geocoded individual-level data from Afrobarometer across 20 Sub-Saharan countries between 2011-2021 that collects information about people's opinion about political leaders and institutions, with high-resolution digital maps of mobile internet coverage from the Global System for Mobile Communications Association (GSMA). Our empirical strategy relies both on border discontinuity and instrumental variable analyses. First, we estimate the effect of distance to the capital city on national politics opinions. We exploit modern national borders that arbitrarily divide historical ethnic homelands.[1] This design compares individuals from the same historical ethnic group, sharing similar geographical, social, and historical traits, who live at different distances from their capital cities due to national boundaries. Second, we exploit the mobile internet diffusion of the 2010s in Sub-Saharan Africa as an informational shock on national politics. We instrument mobile internet infrastructure deployment with lightning strike patterns and examine whether its effect varies with distance to the capital city. This strategy uses the higher deployment and maintenance costs of areas with frequent lightning strikes, while these weather patterns are plausibly exogenous to political opinions.[2]

Our findings are as follows. First, remote areas show significantly more positive opinion on national politics than areas near capitals. This effect remains robust even after incorporating various individual and

[1] See Michalopoulos and Papaioannou (2014); Provenzano (2024); McCauley and Posner (2015); Posner (2004); Cogneau and Moradi (2014)

[2] See Manacorda and Tesei (2020); Guriev, Melnikov and Zhuravskaya (2021); Cariolle and Carroll (2024)

regional level controls; as well as implementing our border discontinuity design. This suggests it reflects genuine spatial patterns rather than ethnic or urban-rural divides. Second, the interaction between distance and mobile internet coverage is strongly negative, revealing a *death of distance* effect: mobile internet appears to erase the spatial divide in opinions by bringing previously disconnected remote areas in line with the more critical assessments found near capitals. This effect exists only in countries with state-controlled media and weak institutions, suggesting that internet access matters when traditional information channels are captured. Third, increased access to information through mobile internet leads to greater political accountability through two channels: (a) citizens in remote areas with mobile internet access become more critical in their assessment of the country's economic performance, and (b) they show greater willingness to sanction the ruling party through voting.

This spatial pattern adds a new dimension to our understanding of the disconnect between government performance and citizen evaluation, suggesting that physical distance is an informational barrier that might preserve positive perceptions despite poor governance. Near capitals, frequent interaction with state institutions creates informed discontent citizens who directly observe government inefficiencies, bureaucratic failures, and service delivery shortcomings. Their proximity enables them to compare actual performance with promised outcomes, leading to more critical assessments. Meanwhile, in remote areas, limited state presence and high information costs create a different dynamic. With infrequent exposure to state institutions, they lack access to information about government activities due to limited direct experience with state institutions. Large-scale changes in information access disrupt these established patterns of political perception and engagement. By reducing information costs, mobile internet can give remote citizens access to information about government activities and break their detachment from national politics.

Our paper bridges two strands of literature. Studies on capital cities highlight how distance fundamentally shapes state-citizen relationships. Provenzano (2024) documents that citizens in remote areas consume less news and maintain higher trust in leaders despite receiving fewer public goods. This pattern is further explained by Campante and Do (2014), who show that geographically isolated capitals see reduced media coverage of politics and lower citizen awareness of state activities. Brinkerhoff, Wetterberg and Wibbels (2018) demonstrate how this distance-driven information deficit affects citizens' engagement with and perceptions of government services. Our border discontinuity design complements Michalopoulos and Papaioannou (2014) finding that national institutions' effects weaken with distance from capitals. Our findings demonstrate that this spatial decay reduces access to national politics information, shedding light on a spatial barrier to assess government activities. Remote areas have significantly more positive opinions on national politics than areas near capitals, despite limited direct experience with state institutions. They value the country's economic performance more positively and are more willing to vote for the ruling party in future elections.

Research on internet diffusion reveals the transformative effect of internet expansion on political behaviour. Guriev, Melnikov and Zhuravskaya (2021) demonstrate how 3G access reduces government approval by exposing citizens to information about corruption and misgovernance. Manacorda and Tesei (2020) show that mobile connectivity enables political mobilization, particularly during economic downturns. In the electoral sphere, Donati (2023) finds that mobile internet increases voter turnout and reduces incumbent party vote share, while Miner (2015) documents similar effects on electoral accountability. However, Cariolle, Elkhateeb and Maurel (2024) highlights potential risks, showing how internet access can facilitate political misperceptions. Our findings show that internet expansion reshapes spatial patterns in political behaviour only in countries with state-controlled media and weak institutions. In these contexts, it reduces information frictions on government activities that have isolated remote areas. Their positive opinions decline toward levels observed near capitals. This suggests that information barriers, rather than the urban-rural divide, drive the spatial pattern of opinion on national politics.

We connect these literatures by showing how mobile internet expansion disrupts physical barriers to political information. We demonstrate that reducing information frictions through internet access can overcome the constraints of physical distance, strengthening the argument that information access is a key mechanism in spatial patterns of political behaviour. Our findings suggest that physical isolation from capitals need not permanently determine political attitudes. Internet expansion can reshape these long-standing spatial patterns by connecting remote citizens to national politics.

2 Data and results

2.1 Main variables

In this section, we describe the main variables of our analysis. See Appendix A for more details about the descriptions, measures, and control variables.

Our first source of data is the geolocated Afrobarometer[3] survey using rounds 5, 6, 7, and 8 between 2011 and 2021. Our sample contains 123,334 individual respondents from 20 Sub-Saharan African countries.[4] Figure 1 displays these countries (in red) and their capital cities (in black).

From this dataset, we use variables related to political trust - president and parliament - to measure opinion on national politics, perception of governance, media consumption, vote, and other socioeconomic information as control variables. First, we construct our main dependent variable *Political Trust* by averaging

[3] Afrobarometer

[4] Our sample includes: Benin, Burkina Faso, Botswana, Cameroon, Ivory Coast, Ghana, Guinea, Kenya, Liberia, Mali, Malawi, Mozambique, Namibia, Niger, Nigeria, Sierra Leone, Tanzania, Uganda, Zambia, and Zimbabwe. We exclude islands, countries with multiple capitals, and countries in Northern Africa. We also exclude countries with missing data on mobile internet coverage and those not present in all survey rounds.

Figure 1: Map of Africa with analysis countries in green and their capital cities in red

responses to trust questions about the president and parliament/national assembly[5], each measured on a 0-3 scale ('Not at all' to 'A lot'). Second, we measure electoral accountability through a binary variable indicating willingness to vote against the ruling party in hypothetical next-day elections.[6] Third, we capture economic performance assessment through a 1-5 scale ('Much worse' to 'Much better') rating of economic conditions compared to 12 months prior.[7]

To measure remoteness, we calculate each respondent's distance from their national capital using Afrobarometer's geocoded enumeration areas. From this raw distance, we calculate additional measures of the distance of citizens from their capital (see Appendix **??**). For our main measure, following Michalopoulos and Papaioannou (2014), we standardize distances by dividing each respondent's distance from the capital by the maximum distance within their country. This relative distance measure ranges from 0 (at capital) to 1 (furthest point), enabling meaningful cross-country comparisons.

We combine our Afrobarometer data with GSMA's[8] digital maps of mobile internet coverage, corresponding to 1x1-kilometer grid cell resolution data from mobile network providers. From these grids, we calculate

[5]The specific questions ask: *"How much do you trust each of the following, or haven't you heard enough about them to say: The President? Trust Parliament / National Assembly?*

[6]To code this variable, we use the question: *"If a presidential election were held tomorrow, which party's candidate would you vote for?"* and information we have collected about the president's ruling party.

[7]Based on responses to: *"Looking back, how do you rate economic conditions in this country compared to twelve months ago?"*

[8]Global System for Mobile Communications Association

a measure of mobile internet coverage at the regional level.[9] Following Guriev, Melnikov and Zhuravskaya (2021), we overlay mobile coverage maps with population density data and calculate weighted averages of internet availability by region and year, using normalized population density weights. This approach ensures comparable coverage measures across regions of different sizes and population distributions.

The first part of our empirical strategy seeks to estimate the spatial disparities in attitude toward national politics regarding the distance to the capital city. We use a Border Discontinuity Design to match and compare respondents on both side of a same country border. Our matching criteria is the historical ethnic homeland as they were at the eve of the colonization. The historical ethnic homeland are those of Murdock et al. (1959)'s map[10], containing the boundaries of historic African ethnic areas as they were approximately in the mid-19th century.

The second part of our empirical strategy addresses how mobile internet expansion affects spatial disparities in opinion on national politics. To address potential endogeneity concerns, we instrument internet coverage using regional lightning strike patterns, following recent literature (Manacorda and Tesei, 2020; Guriev, Melnikov and Zhuravskaya, 2021; Cariolle, Elkhateeb and Maurel, 2024). We construct our instrument by calculating the average daily lightning strikes at the regional level using VHRFC[11] data over 1998-2013, weighted by regional population density in 2011.

Finally, we use several other sources of data such as World Bank or V-Dem for country controls and heterogeneity, and OpenStreetMap to obtain the shapefiles of the African roads.

2.2 Empirical strategy

We first investigate the spatial heterogeneity in national politics opinion regarding the distance to the capital city. Thus, we consider the first baseline equation:

$$\text{Trust}_{icrt} = \alpha_0 + \alpha_1 \text{dist}_{ict} + \mathbf{X}_{ir}^{'}\Gamma + \mu_{ct} + \varepsilon_{icrt} \tag{1}$$

Trust_{icrt} is the measure of opinion on national politics and corresponds to the average trust between the president and the parliament of respondent i in region r in country c in round t, and dist_{ict} is the measure of distance between the respondent and its capital city. $X_{ir}^{'}$ contains the following individual controls: age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, ethnic discrimination, interest in politics, TV news consumption, newspaper news consumption, radio news consumption, normalized distance from the largest non-capital city and the distance to the road, and the

[9] The shapefile associated with the region are those of Global Administrative Areas (GADM) and depending on the country we consider either the ADM1 or ADM2 level to have comparable divisions. See Appendix C.

[10] Nathan Nunn has digitalized this data: Murdock's ethnic homeland map

[11] Very High Resolution Gridded Lightning Full Climatology

following regional controls: nighttime light, population density, region area, president birthplace dummy. μ_{ct} is a country times round fixed effect and ε_{icrt} is the error term cluster at region times round level.

Our coefficient of interest α_1 measures the marginal effect of the distance. As this measure ranges from 0 to 1, this coefficient can also be interpreted as the difference in national politics perception between citizens in the capital and citizens in the most remote areas.

However, to ensure that α_1 is well identified, we have to address endogeneity concerns related to omitted variables. First, the location of the respondents relative to their capital could be correlated with other political or cultural outcomes that could influence trust. The major concern relies on ethnic and regional favoritism. This literature highlights that political leaders favor people of their ethnicity and region of birth (Franck and Rainer, 2012; Hodler and Raschky, 2014; Kramon and Posner, 2016; De Luca et al., 2018). These effects are spatially determined and can be correlated with the opinion on national politics and the distance from the capital city. To address these ethnic and regional favoritism concerns we consider two controls. We add the feeling of ethnic discrimination[12], and a dummy variable equal to 1 if the ruling president was born in the respondent's region and 0 otherwise. Second, the isolation from the capital city could be a proxy for general isolation in the country. To ensure this issue, we included in the regressions the normalized distance from the largest non-capital city and the distance to the road as placebos. All in all, to handle potential remaining endogeneity issues, we perform our regressions with a Border Discontinuity Design (BDD). This approach allows the comparison of groups of similar individuals but having a different distance to their capital city (see section 2.2.1).

After documenting the spatial disparities in attitudes toward government, the other purpose of this paper is to study how the access to internet can mitigate these differences. To estimate this effect, we add to equation 1 an interaction term between the distance to the capital city and the regional mobile internet coverage weighted by the population density in each grid cell. We estimate the following equation:

$$\text{Trust}_{icrt} = \beta_0 + \beta_1 \text{dist}_{ict} + \beta_2 \text{internet\_cover}_{rt} + \beta_3 \text{dist}_{ict} \times \text{internet\_cover}_{rt} + \mathbf{X}_{ir}^{'}\Gamma + \mu_{ct} + \varepsilon_{icrt} \quad (2)$$

We use the regional internet coverage as a proxy for internet consumption. To verify that getting news using internet is correlated with internet coverage, we provide some estimations in Appendix D.

Our coefficients of interest are β_1 and β_3. With the interaction term, the marginal effect of the distance becomes conditional to internet_coverage and is given by $\beta_1 + \beta_3 \times \text{internet\_cover}_{rt}$. Internet coverage can be endogenous regarding 1) reverse causality issues and 2) omitted variable bias. For reverse causality, the

[12] We use the question: *"In the past year, how often, if at all, have you personally been discriminated against based on any of the following: Your ethnicity?"*

core argument is the decision on the location of antennas, which could be a strategic choice of the government by favoring the regions initially having the greatest opinion on national politics. Regarding omitted variable bias, the establishment of internet antennas can also influence political perception through other channels such as an increase in satisfaction related to the state's investment.[13] These potential endogeneity issues are not directly testable; however, we address identification concerns using the same strategy as Manacorda and Tesei (2020) with an instrumental variable (IV) approach using the average lightning strikes in the region (see Section 2.2.2).

2.2.1 Border Discontinuity Design

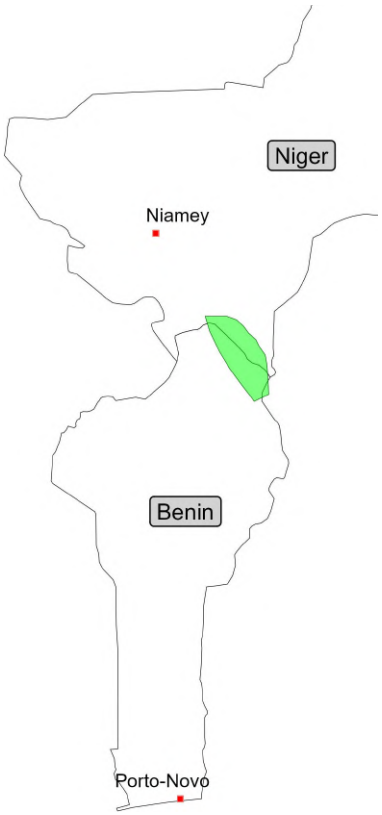
To more robustly identify the effect of distance, we estimate equation 1 using African borders as a source of quasi-exogenous variations in the distance to the capital city. We compare groups of similar individuals living in the same historical ethnic area but being separated by a country border, which implies different distances to the capital cities depending on the side of the border. Figure 2a illustrates the Dendi's historical homeland in green on the map. We compare respondents in this area on both sides of the border, with Nigerien closer to Niamey than Beninese are to Porto-Novo. We generalize this approach to the whole Africa using the map of Murdock et al. (1959) which provides the borderline of historical ethnic homeland as they were around the mid-19th century. Figure 2b shows the borderlines of the historical ethnic homeland in black and the current borders in red. As modern African countries' borders were drawn arbitrarily regarding historical ethnic homeland[14], it created different random national affiliation for a same ethnic area. Thus, it ensures that the borderline of the historical ethnic homeland as exogenous with the current borderline of African countries.

In the literature, some like Campante, Do and Guimaraes (2019) use changes in capital cities as a source of variation to estimate the effect of distance – although this approach sets other endogeneity issues –. However, we do not have such changes over the period we study and in the absence of temporal variation in the distance to the capital city, we favor a strategy based on a geographic variation. Most of the time the BDD strategy is used to measure the impact of variables on economic development using nighttime light as proxy (Michalopoulos and Papaioannou, 2014; Provenzano, 2024; de Figueiredo et al., 2023). Here the outcome is political trust, thus our identification relies on stronger assumptions: 1) individuals living in the same historical ethnic region share similar geographical, social, and historical traits, except for their distance from the capitals, and 2) the differences observed on either side of the country border are not linked to institutional differences. The first hypothesis is the core identifying assumption of our strategy and is not

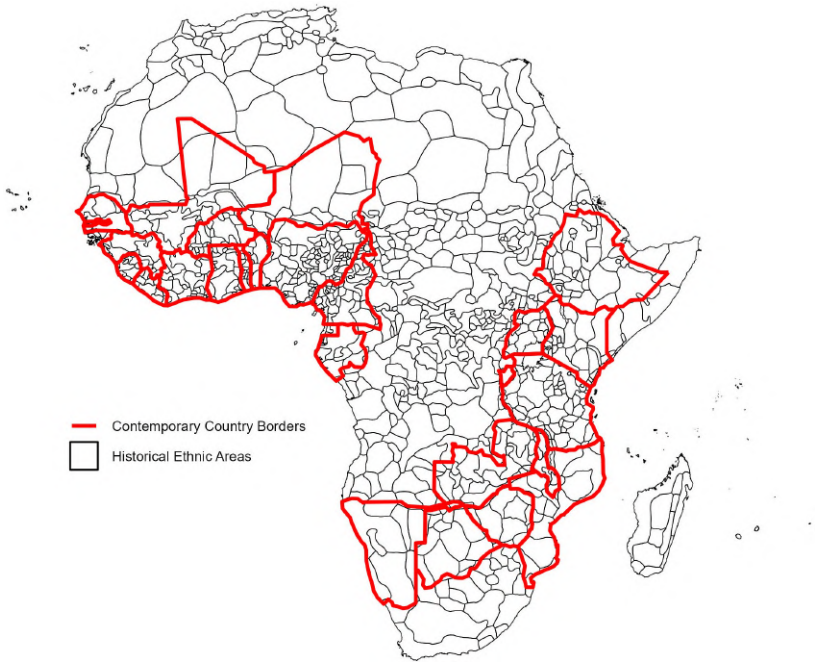
[13] Even though Ge et al. (2024) show in Ghana that citizens reward private operators for the construction of antennas.

[14] See Michalopoulos and Papaioannou (2016) for some tests to validate this assumption

Figure 2: Murdock's historical ethnic homeland



(a) Dendi Ethnic Group area at the border of Benin and Niger

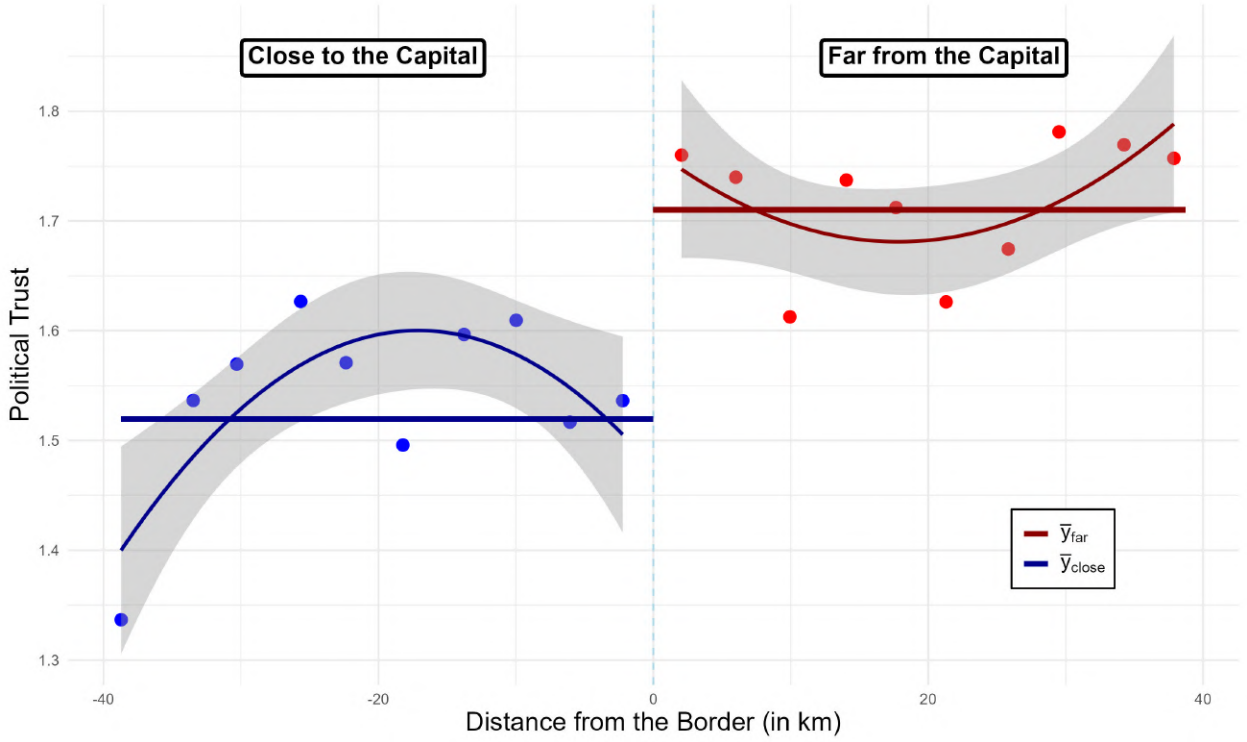


(b) Map of Africa with Murdock's ethnic homeland and current country borders

directly testable. The second hypothesis is partially testable, we present estimations with country control variables instead of fixed effects to account for some of this institutional heterogeneity.

We estimate equation 1 restricting our sample to respondents living near a country border with boundaries of 40km, and we add Murdock's area fixed effects to match them on both sides of the country border. Figure 3 shows the border discontinuity, on the right side of the graph we plotted the 50% of observations farthest from the capitals, and on the left side, we plotted the closest 50% of observations from the capitals. The points correspond to the fitted values of regression of column (3) in Table 1, the discontinuity appears as clear and significant whatever the functional form we consider.

Figure 3: Boundary discontinuity graph



2.2.2 Instrumental Variable

In this section, we outline the identification strategy to analyze the effect of internet coverage on shaping opinions about national politics. We use the same approach as Manacorda and Tesei (2020) and Guriev, Melnikov and Zhuravskaya (2021), considering the lightning strikes in the region as a source of exogenous variation. Lightning strikes damage internet antennas during storms, consequently, all things being equal, the probability of installing an antenna in a region drops with increasing lightning strikes. Climatic events such as storms hinder the development of communication technologies because they increase their cost (Andersen et al., 2012), and internet antennas are particularly vulnerable to lightning due to their shape. We exploit this meteorological variation affecting antenna location as an instrumental variable to estimate regional antenna coverage. Following Guriev, Melnikov and Zhuravskaya (2021) and Cariolle, Elkhateeb and Maurel (2024), we construct our measure by calculating the average daily lightning strikes at the regional level using VHRFC data over 1998-2013, weighted by regional population density in 2011. This weighting accounts for two offsetting forces: while lightning strikes increase infrastructure costs, population density reduces per-capita costs by spreading infrastructure investments across more users in high-risk areas. This instrument provides plausibly exogenous variation in internet access across varying distance from the capital

city. However, lightning strikes explain the antenna stock for a given year but not the variation between years. On average, areas with more lightning strikes have fewer antennas but this measure does not explain the increase over the periods. For this reason, the final instrument consists in the interaction between lighting strikes and a linear time trend t that captures the increase in antenna stock. We therefore estimate the following first-stage equations:

$$\begin{aligned} internet\_cover_{rt} = \gamma_0 + \gamma_1 dist_{ict} + \gamma_2[lightning\_strike_r \times t] \\ + \gamma_3 dist_{ict} \times [lightning\_strike_r \times t] + \mathbf{X}_{ir}^{'}\Gamma + \mu_{ct} + \varepsilon_{icrt} \end{aligned} \tag{3}$$

$$\begin{aligned} internet\_cover_{rt} \times dist_{ict} = \lambda_0 + \lambda_1 dist_{ict} + \lambda_2[lightning\_strike_r \times t] \\ + \lambda_3 dist_{ict} \times [lightning\_strike_r \times t] + \mathbf{X}_{ir}^{'}\Gamma + \mu_{ct} + \varepsilon_{icrt} \end{aligned} \tag{4}$$

2.3 Results

2.3.1 Main results

Table 1 presents the estimates of equation 1 using different models. Columns (1) and (2) are based on the total sample, and columns (3) and (4) contain the results using the BDD. All the specifications include individual and regional controls, and columns (1) and (3) consider country controls and round fixed effects instead of country time varying fixed effects to control for problems of institutional differences between countries mentioned in section 2.2.1. The distance from the capital city has a positive and significant effect on opinion in national politics whatever the specification we consider. For the estimation in column (1), respondents in remote areas show 29.31% higher political trust relative to the unconditional standard deviation (1.023). For the BDD estimate in column (3), the effect of being in a remote area on political trust represents 59.71% of the unconditional standard deviation (1.035) of political trust.

Table 1: Effect of distance from the capital on political trust

	OLS			
	Political trust			
	Base sample		Border sample	
	(1)	(2)	(3)	(4)
Distance from the capital	0.300***	0.298***	0.618***	0.341**
	(0.04)	(0.03)	(0.15)	(0.16)
Individual & regional controls	Yes	Yes	Yes	Yes
Country controls	Yes	No	Yes	No
Round FE	Yes	No	Yes	No
Country X Round FE	No	Yes	No	Yes
Ethnic homeland FE	No	No	Yes	Yes
Observations	107,117	111,570	10,790	11,924
Adjusted-R^2	0.105	0.156	0.140	0.172

Notes: The border sample includes individuals residing within a 40-kilometer buffer around a country border that overlaps with a historical ethnic homeland, as defined by Murdock (1959). Robust standard errors clustered at the region x round level for the base sample and ethnic homeland x region x round level for the border sample are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, interest in politics, TV news consumption, radio news consumption, newspaper consumption. (3) and (4) also include a measure of ethnic discrimination. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. The set of country controls includes: log(GDP.p.c.), log(area), V-Dem Polyarchy index, World Bank corruption index, political regime type, colonial origin. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

These results highlight the existence of two opposing patterns in political attitude depending on the distance from the capital city. Remote citizens have a better perception of national politics than citizens close to the capital city, illustrating a spatial disconnection. However, isolation from the capital city alone does not explain this disconnect; it is a part of a broader context where the state presence and the access to information flows are central. Citizens in the capital have more frequent interactions with the central state and can directly observe poor governance. In contrast, less exposed to institutions and public goods, remote citizens are less able to form informed opinions. These differences in state-citizen interaction influence the formation of political attitudes and underscore the crucial role of information. In a context of weak states where central governments struggle to extend their institutions inland, overcoming informational barriers emerges as a key challenge in helping remote citizens to develop informed opinions on the quality of the governance.

Therefore, the second contribution of this paper is to test how increasing internet access can help to break these informational barriers in remote areas. Then, we estimate equation 2 using the IV strategy, table 2 presents these results. Column (1) contains the OLS estimate, columns (2) and (3) the two first stages estimates for internet_cover$_{rt}$ and its interaction with distance, and, finally, column (4) presents the second stage estimates.

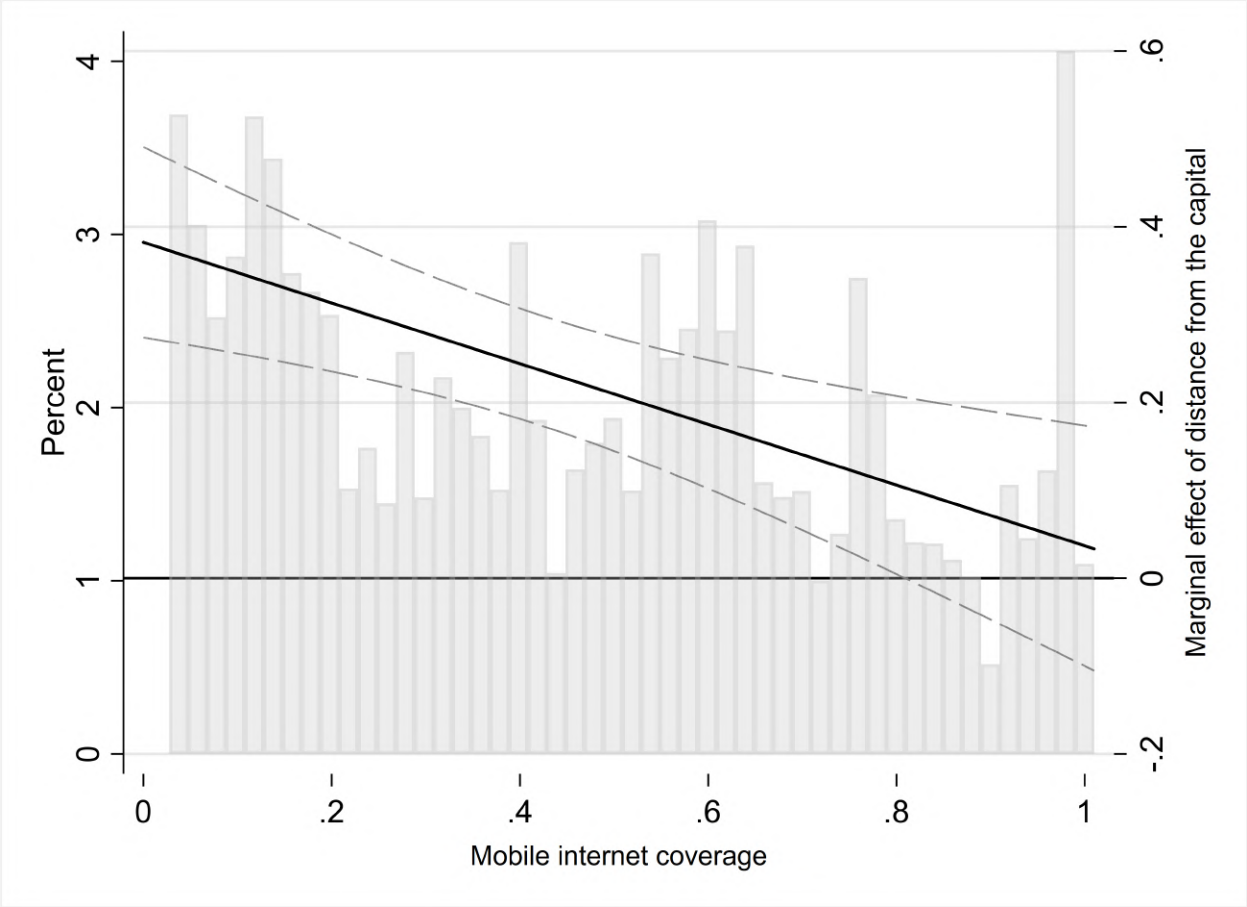
We are interested in the effect of distance conditionally to the internet access which is denoted by $\beta_1 + \beta_3 \times internet\_cover_{rt}$. The 2SLS estimation in column (4) shows $\beta_1 > 0$ and $\beta_3 < 0$ which emphasizes the diminishing impact of distance as internet coverage expands. In the absence of internet coverage, the effect of distance is positive due to limited information access, but as internet coverage expands, the effect of distance decreases. Figure 4 summarizes this interpretation showing the effect of distance as a function of internet coverage, for high values in internet coverage the effect of distance is null, revealing a *death of distance* effect. In terms of magnitude, in column (4), in the absence of internet coverage the coefficient β_1 gives the marginal effect of distance on political trust. This coefficient displays that remote areas show 148.83% higher political trust relative to the political trust's unconditional standard deviation (1.023). At the other end of the spectrum when internet_coverage is equal to 1, the effect of the distance is given by $\beta_1 + \beta_3$ and is equal to -1.427. This coefficient shows that when internet is fully available, remote areas show 139.46% lower political trust relative to the political trust's unconditional standard deviation. Isolated areas from the capital city have less access to state institutions and to public goods (Michalopoulos and Papaioannou, 2014; Provenzano, 2024), it is not surprising to observe when citizens gain information about the actual quality of governance in their region, they show a worst attitude toward national politics.

Table 2: Effect of internet coverage on political trust by distance

	Base sample				
	OLS	First Stage			2SLS
	Political trust	Internet coverage		Distance × Internet coverage	Political trust
	(1)	(2)		(3)	(4)
Distance from the capital	0.453***				1.523***
	(0.05)				(0.56)
Internet coverage	-0.015				1.770**
	(0.06)				(0.69)
Distance from the capital × Internet coverage	-0.466***				-2.950**
	(0.10)				(1.45)
Lightning strikes		-0.002***		-0.000	
		(0.00)		(0.00)	
Distance from the capital city × Lightning strikes		-0.000		-0.001***	
		(0.00)		(0.00)	
SW *F* - Lightning strikes	-	-	13.74	-	-
SW *F* - Distance × Lightning strikes	-	-	8.62	-	-
Individual & regional controls	Yes	Yes		Yes	Yes
Country X Round FE	Yes	Yes	-	Yes	Yes
Observations	111,570	113,243	113,243	111,570	
Adjusted-R^2	0.158	-	-	-	

Notes: Robust standard errors clustered at the region x round level. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, ethnic discrimination, interest in politics, TV news consumption, newspaper consumption, radio consumption. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

Figure 4: Effect of distance to the capital city on Political trust as a function of internet coverage -based on column (1) in table 2-



2.3.2 Heterogeneity

In this section, we discuss the homogeneity of our results regarding institutional differences between countries and individual differences between respondents.

A major concern about our results is how we interpret them. We argue that the introduction of internet in remote areas negatively affects opinions in national politics due to the gain of information about the quality of governance. However, this explanation can be challenged by the issue of fake news. An alternative narrative could be that the political trust decreases with internet due to the emergence of fake news rather than access to information about the actual quality of governance. To test this assumption we estimate equation 2 regarding media censorship and the quality of democracy. Table 3 provides the 2SLS results on sub-samples based on the quality of electoral democracy index *polyarchy*, and on media censorship index *freedom of media* from V-Dem. Column (1) gives the results for the sub-sample of countries with a media freedom score above the sample median and column (2) for the sub-sample of countries below the median.

Columns (3) and (4) contain similar results on subsamples based on the polyarchy "electoral democracy" score. Column (3) contains countries whose score is below the median and column (4) includes countries above the median. The effect of internet in remote areas is significant only for countries with higher media censorship and poorer quality of institutions.

These results support our assumption of information gain rather than the fake news one. First, for media censorship, if the drop in institutional trust was related to fake news there were no reason to observe a different effect depending on the media censorship. The rise of internet coverage in remote areas has a significant effect only on countries with high censorship. It shows that when traditional media are captured by the government and provide only biased information, access to a freer source of information like internet help to highlight issues of poor governance. Internet functions therefore as a privileged channel of access to information when other information channels fail. Second, for the quality of democracy, we observe an effect of internet coverage in remote areas only for countries with a low level of democracy. If the correct explanation were fake news, there would be no reason to observe a differentiated effect based on the quality of institutions. In countries with relatively poorly functioning governance, access to information via the internet underlines these governance issues and institutional problems. In countries with a better quality of governance and fewer political problems to highlight, the effect of access to information using internet has mechanically less consequences.

Table 3: Media and institutions freedom

	2SLS: Political trust			
	Base sample			
	Media		Institutions	
	Free	Captured	Free	Captured
	(1)	(2)	(3)	(4)
Distance from the capital	-9.502	1.090**	2.366	0.939***
	(31.46)	(0.43)	(1.55)	(0.32)
Internet coverage	-6.100	1.007	2.653*	0.762
	(24.28)	(0.74)	(1.51)	(0.69)
Distance from the capital × Internet coverage	20.900	-2.181*	-5.129	-1.528*
	(67.40)	(1.28)	(4.06)	(0.78)
Individual & regional controls	Yes	Yes	Yes	Yes
Country X Round FE	Yes	Yes	Yes	Yes
Observations	50,288	61,282	51,737	59,833

Notes: Robust standard errors clustered at the region x round level are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, ethnic discrimination, interest in politics, TV news consumption, newspaper consumption, radio consumption. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

Table 4 contains individual heterogeneity results based on education level and belonging to a rural or urban area. Column (1) shows the 2SLS results on the subsample of people with less than secondary

education and column (2) on people with education greater than or equal to secondary school. We observe a negative effect of the interaction only for the least educated people. These results are consistent with our findings, the most educated people have had greater access to knowledge throughout their studies and, on average, rely less on the media to form an opinion on national politics. Educated individuals possess a higher initial level of knowledge, so the marginal effect of internet access is likely far less significant for them than for those with lower education and knowledge levels.

Column (3) contains the sample of people living in urban areas and column (4) includes those who live in a rural area. The effects of the distance and its interaction with internet coverage hold only for rural areas. It is not unexpected because, as our measure for internet coverage is regional, it does not fully capture this difference between urban and rural areas. For a given region, internet coverage is the same for urban and rural respondents. However, as all cities have a minimum of internet access, the informational barriers are mechanically weaker than in rural areas. This heterogeneity result also confirms the effect of isolation on opinion in national politics.

Table 4: Individual heterogeneity

	2SLS: Political trust			
	Base sample			
	Education		Urban/Rural	
	$<$ Secondary	$\geq$ Secondary	Urban	Rural
	(1)	(2)	(3)	(4)
Distance from the capital	1.467***	1.440	1.074**	2.666***
	(0.45)	(1.44)	(0.54)	(0.89)
Internet coverage	1.613**	1.632	0.525	4.471***
	(0.63)	(1.34)	(0.62)	(1.48)
Distance from the capital $\times$ Internet coverage	-2.901**	-2.688	-1.787	-5.898**
	(1.24)	(3.22)	(1.12)	(2.55)
Individual & regional controls	Yes	Yes	Yes	Yes
Country X Round FE	Yes	Yes	Yes	Yes
Observations	79,394	32,176	42,509	69,061

Notes: Robust standard errors clustered at the region x round level are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, ethnic discrimination, interest in politics, TV news consumption, newspaper consumption, radio consumption. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. Education, rural/urban, and age controls are omitted from columns (1-2), (3-4), and (5-8), respectively.*** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

3 Discussion

3.1 Mechanisms

The previous results highlight the importance of access to information, demonstrating how internet helps to bridge the informational gap between close and distant citizens. Excepted this change in perception, the gain of information associated to internet has other implications for accountability mechanisms, by allowing informed citizens to penalize their political leaders for poor governance. Columns (1) and (2) in Table 5 present estimations of equation 2, replacing the dependent variable by the vote against the ruling party in hypothetical next-day elections, and the perception of the country's performance. In column (1) the coefficient β_2 associated to the distance to the capital city is negative, and in column (2) this coefficient is positive. These estimations show that in the absence of internet coverage, people in remote area vote more for the ruling party and have a better assessment of their country's economic performance. These findings are consistent with the previous one: with no information, remote citizens have a better opinion about the quality of governance and therefore support their political leaders. However the coefficient β_3 associated to the interaction with internet coverage is positive for the vote and negative for the country's performance. It underscores that the impact of distance diminishes with increasing internet coverage. In other words, by gaining information through internet, remote citizens judge more harshly their country's economic performance and thus sanction the ruling party through voting. As for political trust, high values in internet coverage are associated with a null effect of the distance showing how it helps to establish accountability mechanisms.

Table 5: Political accountability

	2SLS	
	Vote against ruling party	Country performance
	Base sample	Base sample
	(1)	(2)
Distance from the capital	-0.932***	1.874***
	(0.28)	(0.65)
Internet coverage	-1.163***	2.089***
	(0.41)	(0.77)
Distance from the capital × Internet coverage	2.104***	-4.200**
	(0.74)	(1.69)
Individual & regional controls	Yes	Yes
Country X Round FE	Yes	Yes
Observations	74,959	111,696

Notes: Robust standard errors clustered at the region x round level are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, ethnic discrimination, interest in politics, TV news consumption, newspaper consumption, radio consumption. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

3.2 Limits

In this sections, we describe the limits of the empirical methodology.

The first issue concerns Murdock et al. (1959)'s data about historical ethnic homeland. In the BDD strategy, we use the Murdock map for historical ethnic homelands as matching criteria to compare respondents on both sides of a country border. This strategy has been widely used in the literature but is subject to some critics. First, Murdock drew the pre-settlement ethnic areas almost a century after colonization began. In a context with few sources and limited means he necessarily made approximations leading to errors in in his border drawings. However, this type of margin error is inevitable for this kind of work, and generally, the zones established by Murdock, though imperfect, serve as a good proxy for what they actually were in the pre-colonial period. Second, ethnic zones are not fixed and move over time, we can therefore question the relevance of their use almost two centuries later. Lowes (2021) shows using Afrobarometer rounds 3 to 6 that in some Murdock area, less than 20% of the respondents report the same ethnicity as the Murdock one. This is not very surprising because in almost 2 centuries the ethnic groups have moved and mixed. In our strategy we use Murdock's map precisely because it dates from before colonization and these lines have not been "noisy" by colonization and the rest of the political history of the 19^{th} and 20^{th} centuries. Third, our BDD strategy is based on the idea that the African countries' borders were drawn "randomly" by European countries that would not have included the local context. Although this hypothesis has been widely accepted by the economic literature, Paine, Qiu and Ricart-Huguet (2022) challenge this narrative by showing that African leaders had an influence on the drawings of colonial borders. They were also largely based on geographical factors. However, it remains clear that colonial borders were not based on pre-existing ethnic zones (Michalopoulos and Papaioannou, 2016). Also the use of Murdock zones as matching criteria on either side of the border remains relevant in our case.

A second limitation of our empirical strategy concerns the combination of IV and BDD. Performing the instrumental variable analysis in the BDD setup is problematic both for lighting strikes and internet coverages measures. First, we limit the variability of the lightning strikes leading to a weaker instrument. As the border strategy is based on the comparison of people in a similar geographic area, then climatic conditions - including lightning - are also similar. In this context, using a geographic instrument comparing similar areas is less efficient. Second, as we use a worldwide internet coverage map, we cannot identify the country of origin of the coverage at the border. The internet coverage of a country does not stop at its border, there are overlaps. Phone plans are often linked to a unique country, in our analysis, we can consider that some people at the border have access to internet but, in reality they do not have the right country plan. Nevertheless, this issue should be minimized because we measure internet coverage at the regional level, which leads to smaller errors. However, for these reasons, we favor the IV strategy on the full sample

(column (4)). We still provide the instrumental variable estimate with our border design in Appendix D.

4 Conclusion

This paper provides new results about the impact of internet access on opinion in national politics across varying distances to the capital city in Sub-Saharan Africa. We first document a spatial heterogeneity in political perception regarding distance to the capital city. We show that isolation from the capital city is associated with a better perception of national politics. We argue that this difference is linked to informational barriers in remote areas, driven by the lack of state presence and limited access to information. The second contribution of this paper is to show how internet helps to bridge the informational gap between close and distant citizens. Increasing internet coverage leads to a *death of distance* effect by reducing the difference between nearby and remote areas to zero. Third, increased internet coverage helps to establish political accountability. With internet, remote citizens show a greater willingness to sanction the ruling party through voting and become more critical in their assessment of their country's economic performance. Finally, we show that all the effects we document hold only in countries with weaker governance. In countries with no or few governance issues, there is no reason to expect a particular effect of internet coverage on gaining information about governance quality. Having significant results on countries with the poorest governance supports the narrative that access to internet helps to highlight governance issues.

This paper provides new insights into the dynamics of political attitude patterns in the Sub-Saharan context. Some literature contributions highlight the difference in the state's presence depends on distance to the capital city. In the African context, with weak states that face challenges in spreading their institution inland from coastal capitals, there are important gaps between nearby and remote areas in access to institutions and public goods. There is a disconnect between the actual and the perceived quality of governance in remote areas. From this perspective, we show how internet access helps to reduce this difference.

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A Data

In this section we describe more in details the variable that we use in our analysis.

Afrobarometer Data

Our main source of data is the rounds 5, 6, 7, and 8 of the Afrobarometer survey. The variables we use are shown below but, for more information, here are the codebooks:

https://afrobarometer.org/wp-content/uploads/migrated/files/data/round-5/merged_r5_codebook.pdf

https://www.afrobarometer.org/wp-content/uploads/2022/02/merged_round_6_codebook_2016_repost042018.pdf

https://www.afrobarometer.org/wp-content/uploads/2023/02/r7_merged.codebook_final_14dec20-1-1.pdf

https://www.afrobarometer.org/wp-content/uploads/2024/06/R8_Merge-Codebook_28May24.final_.pdf

Age: How old are you? **Values:** 18-99

Sex: Gender of respondent. **Values:** 1=Male, 2=Female

Education: Education of respondent. **Values:** : 0=No formal schooling, 1=Informal schooling only (including Koranic schooling), 2=Some primary schooling, 3=Primary school completed, 4=Intermediate school or Some secondary school / high school, 5=Secondary school / high school completed, 6=Post-secondary qualifications, other than university e.g. a diploma or degree from a polytechnic or college, 7=Some university, 8=University completed, 9=Postgraduate

Employment status: Do you have a job that pays a cash income? [If yes, ask] Is it full-time or part-time? [If no, ask:] Are you presently looking for a job? **Values:** 0=No, not looking, 1=No, looking, 2=Yes, part-time, 3=Yes, full time

Urban/rural situation: Urban or Rural Primary Sampling Unit. **Values:** 1=Urban, 2=Rural, 3=Semi-Urban, 4=Peri-Urban

Personal economic conditions perception: In general, how would you describe: The present economic condition of this country? **Values:** 1=Very bad, 2=Fairly bad, 3=Neither good nor bad, 4=Fairly good, 5=Very good

Ethnic discrimination: In the past year, how often, if at all, have you personally been discriminated against based on any of the following: Your ethnicity? **Values:** 0=Never, 1=Once or twice, 2=Several times, 3=Many times

Interest in politics: When you get together with your friends or family, would you say you discuss political matters? **Values:** 0=Never, 1=Occasionally, 2=Frequently

TV news consumption: How often do you get news from the following sources: Television? **Values:** 0=Never, 1=Less than once a month, 2=A few times a month, 3=A few times a week, 4=Every day

Newspaper consumption: How often do you get news from the following sources: Newspapers? **Values:** 0=Never, 1=Less than once a month, 2=A few times a month, 3=A few times a week, 4=Every day

Radio news consumption: How often do you get news from the following sources: Radio? **Values:** 0=Never, 1=Less than once a month, 2=A few times a month, 3=A few times a week, 4=Every day

Internet news consumption: How often do you get news from the following sources: Internet? **Values:** 0=Never, 1=Less than once a month, 2=A few times a month, 3=A few times a week, 4=Every day

President birthplace dummy: Dummy variable equal to 1 if the president is born in the respondent ADM1's region. **Comments:** Using various sources (including Wikipedia), we determined the city and region of birth of the ruling president in the corresponding survey wave. These data are available online.

Regional variables

Nighttime light: This data comes from Earth Observation Group, Payne Institute for Public Policy, Colorado School of Mines (https://eogdata.mines.edu/products/vnl/). We use VIIRS (Visible Infrared Imaging Radiometer Suite) which provide at pixel scale (15 arc second) the light emitted at night. We average these pixels regionally, which gives us a proxy for economic development. For round 5, the data are those from 2011, for round 6 those from 2014, for round 7 those from 2016 and for round 8 those from 2019.

Population density: This data comes from WorldPop (https://hub.worldpop.org/doi/10.5258/SOTON/WP00004) and contains the number of people per $1km^2$ pixel. We average these pixels regionally. As for nighttime light, we consider the year 2011 for round 5, the year 2014 for round 6, the year 2016 for round 7 and the year 2019 for round 8.

Region area: Corresponds to the surface area in km2 of the region to which the respondent belongs. The regions are those of GADM and correspond to the ADM1 or ADM2 division depending on the country (see appendix A.2).

Internet coverage: These data are from GSAM which provides 2G and 3G coverage at the 1km × 1km scale in binary form. According to the methodology of Guriev, Melnikov and Zhuravskaya (2021) we calculate a joint measure of 2G and 3G coverage at the regional scale.

Murdock ethnic homeland: These data contain the polygons corresponding to historical ethnic areas (pre-colonization) as defined by Murdock 1959. We downloaded these data using the R package "Murdock" (https://github.com/sboysel/murdock). The digitization of this data was done by Nathan Nunn (https://worldmap.maps.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=e226dd808168452d80ccc672f12d077c

Vote against ruling party: Dummy variable equal to 1 if the respondent declared that they wanted to vote against the party of the president in power if the elections took place tomorrow. **Comments:** This variable is based on the Afrobarometer question: If a presidential election were held tomorrow, which party's candidate would you vote for? Using various sources (including Wikipedia), we determine the party of the president for every country and every round. These data are available online.

Country controls

log(GDP.p.c.): Natural logarithm of GDP per capita (in constant 2015 US$). https://data.worldbank.org/indicator/NY.GDP.PCAP.KD?locations=1W

log(area): Natural logarithm of the country surface area in Km2. https://data.worldbank.org/indicator/AG.SRF.TOTL.K2

Polyarchy index: Measure of electoral democracy which to answer in what extent is the ideal of electoral democracy in its fullest sense achieved. This data comes from V-DEM (https://v-dem.net/data/the-v-dem-dataset/).

Freedom of Media index: Measure of media censorship effort by the government, answering the question if the government directly or indirectly attempt to censor the print or broadcast media. This data comes from V-DEM (https://v-dem.net/data/the-v-dem-dataset/).

World Bank corruption index: This is the ranking of the annual Transparency International corruption perception index, which ranks more than 150 countries in terms of perceived levels of corruption, as determined by expert assessments and opinion surveys. For more information on this indicator, please visit http://www.transparency.org/policy_research/surveys_indices/cpi the Transparency International page on the topic. https://databank.worldbank.org/metadataglossary/africa-development-indicators/series/GV.TI.RANK.IDX

Political regime type: This data comes from Juriglobe (https://juri-globe.ca/fr/) and provides for each of the countries in our sample the form of government, in our case either presidential, semi-presidential or parliamentary.

Colonial origin: These data are those of Klerman et al. (2011) and contain the colonial origin of the countries we analyze (https://academic.oup.com/jla/article/3/2/379/899816#supplementary-data). In our case it is either French, English, Portuguese or German.

Other data

Distance to the road: Shortest distance between the road and the respondent. We obtain the shapefiles of roads using the OpenStreetMap API on QGIS. We consider the following types of roads (according to OSM classification): motorway, trunk, and primary.

B Capitals and largest non-capital city

Table 6 contains the capitals, the largest non-capital cities as well as their GPS coordinates for the 20 countries studied. For Benin the largest non-capital city is Abomey-Calavi and is located approximately

2km from the capital. As it is too close, we replace it by Djougou.

C Choice of regional division

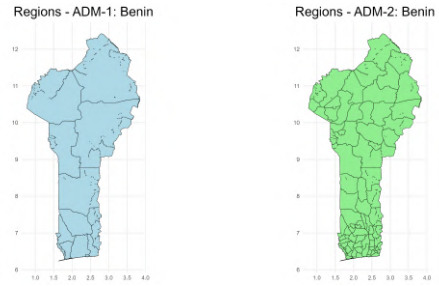
In our analysis, we use the Administrative 1 (ADM1) or the Administrative 2 (ADM2) division depending on the country. The shapefiles associated to these divisions come from GADM (https://gadm.org/). Depending on the country, the regions do not have the same granularity and, to have regions of comparable importance within their country, we have chosen one of these two divisions. The countries we consider on the ADM1 division are **Ghana**, **Kenya**, **Mozambique**, **Malawi**, **Nigeria**, **Tanzania**, **Uganda**, **Zambia**, and **Zimbabwe**. The countries we consider on the ADM2 division are **Benin**, **Burkina Faso**, **Botswana**, **Ivory Coast**, **Cameroon**, **Guinea**, **Liberia**, **Mali**, **Namibia**, **Niger**, and **Sierra Leone**. Figure 4 shows the country's administrative divisions 1 and 2, we use the division in green for every country.

Table 6: Capital cities and Largest non-capital cities

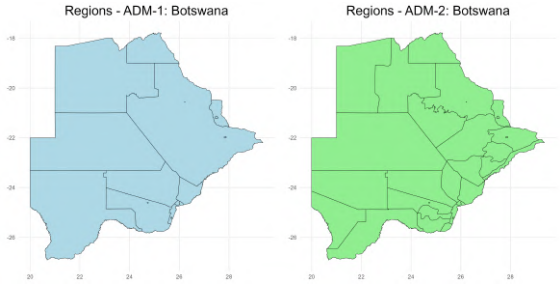
Country	Capital	Latitude	Longitude	Largest non-capital city	Latitude	Longitude
Benin	Cotonou	6,3667	2,4333	Djougou	6,4486	2,3556
Burkina Faso	Ouagadougou	12,3686	-1,5275	Bobo-Dioulasso	11,1833	-4,2833
Botswana	Gaborone	-24,6581	25,9122	Francistown	-21,1736	27,5125
Côte d'Ivoire	Abidjan	5,3167	-4,0333	Bouake	7,6833	-5,0167
Cameroon	Yaounde	3,8667	11,5167	Douala	4,05	9,7
Ghana	Accra	5,55	-0,2	Kumasi	6,7	-1,625
Guinea	Conakry	9,5092	-13,7122	Nzerekore	10,0497	-12,8542
Kenya	Nairobi	-1,2864	36,8172	Mombasa	-4,05	39,6667
Liberia	Monrovia	6,3133	-10,8014	Gbarnga	6,998	-9,473
Mali	Bamako	12,6392	-8,0028	Sikasso	11,3167	-5,6667
Mozambique	Maputo	-25,9667	32,5833	Beira	-19,8333	34,85
Malawi	Lilongwe	-13,9833	33,7833	Blantyre	-15,7861	35,0058
Namibia	Windhoek	-22,57	17,0836	Rundu	-17,9167	19,7667
Niger	Niamey	13,515	2,1175	Zinder	13,8053	8,9883
Nigeria	Abuja	9,0667	7,4833	Lagos	6,455	3,3841
Sierra Leone	Freetown	8,4844	-13,2344	Bo	7,9564	-11,74
Tanzania	Dar es Salaam	-6,8161	39,2803	Mwanza	-2,5167	32,9
Uganda	Kampala	0,3136	32,5811	Gulu	2,7817	32,2992
Zambia	Lusaka	-15,4167	28,2833	Kitwe	-12,8167	28,2
Zimbabwe	Harare	-17,8292	31,0522	Bulawayo	-20,17	28,58

Figure 5: Countries with ADM1 and 2 divisions

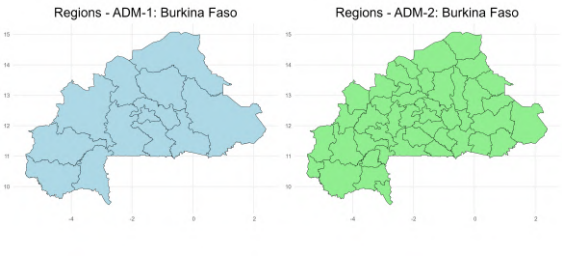
(a) Benin



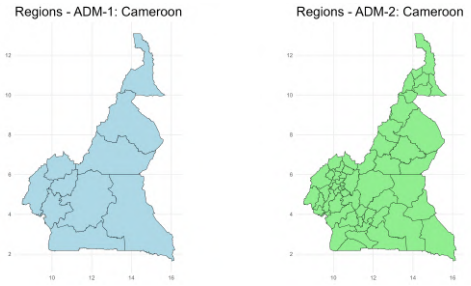
(b) Botswana



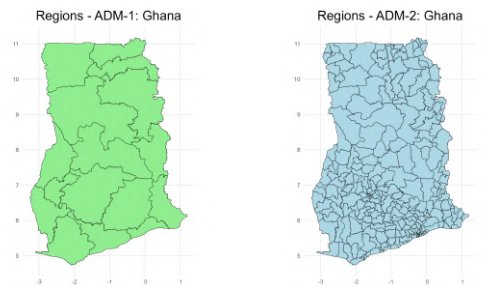
(c) Burkina Faso



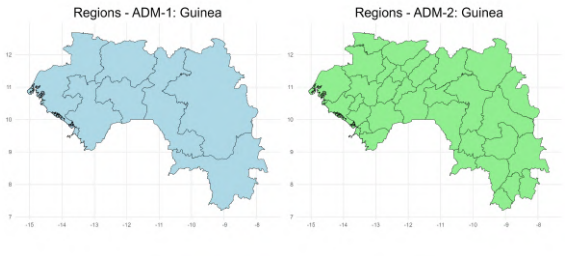
(d) Cameroon



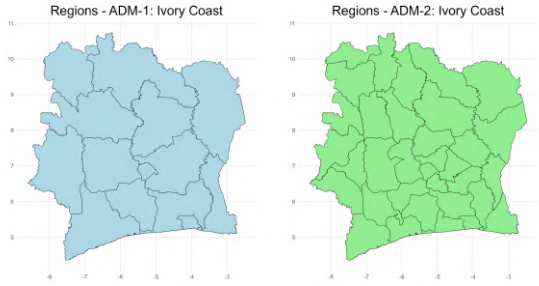
(e) Ghana



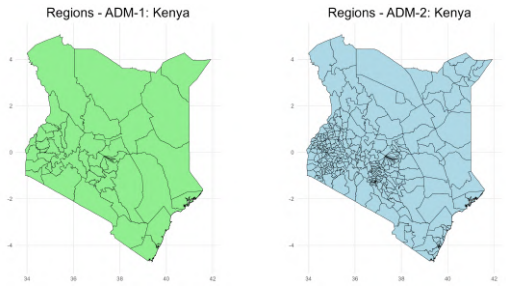
(f) Guinea



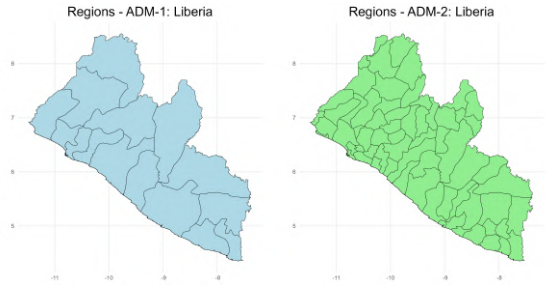
(g) Ivory Coast



(h) Kenya



(i) Liberia



(j) Malawi

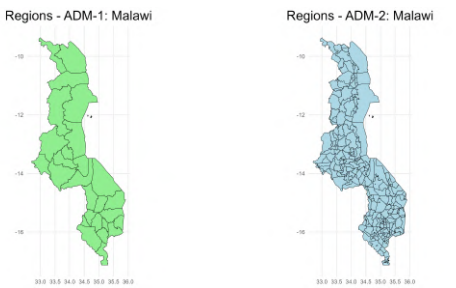
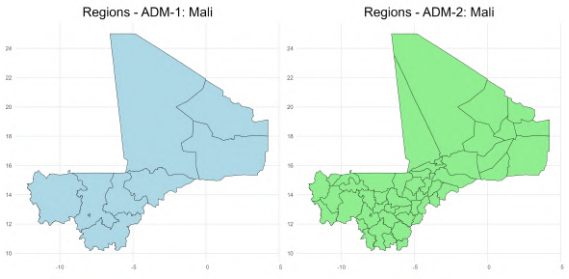
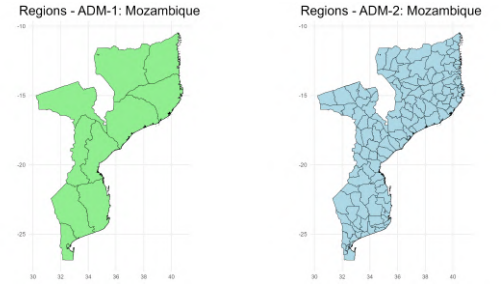


Figure 5 (continued): Countries with ADM1 and 2 divisions

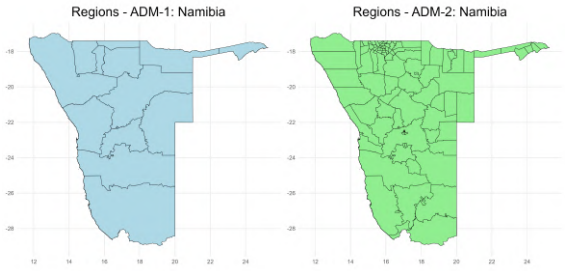
(k) Mali



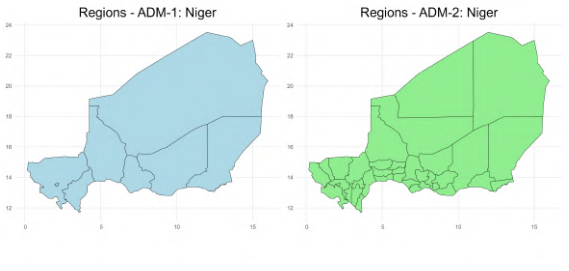
(l) Mozambique



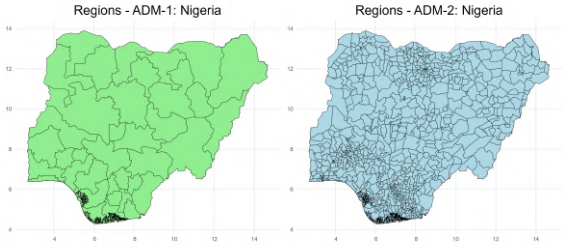
(m) Namibia



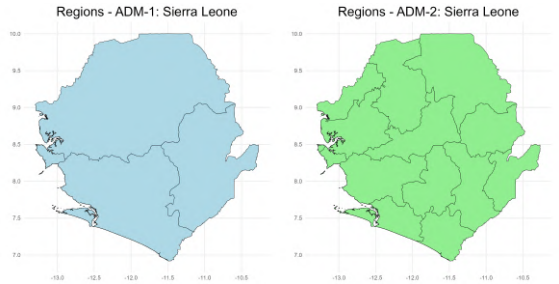
(n) Niger



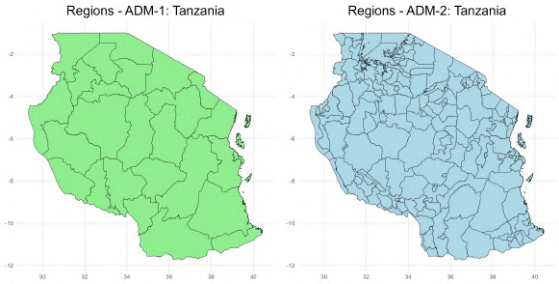
(o) Nigeria



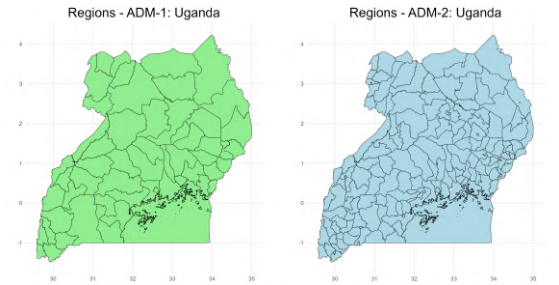
(p) Sierra Leone



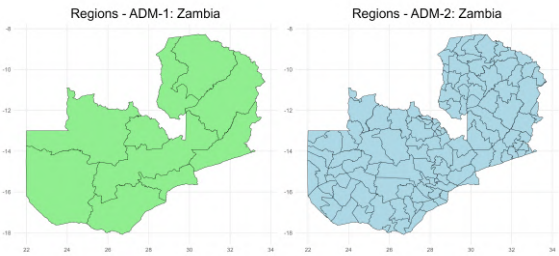
(q) Tanzania



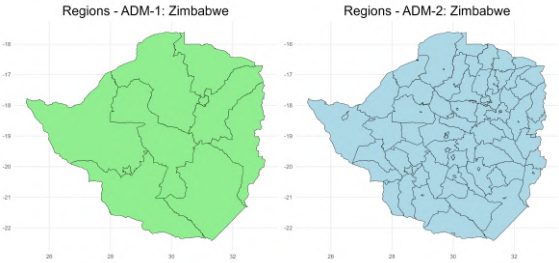
(r) Uganda



(s) Zambia



(t) Zimbabwe



D Additional results

Table 7: Effect of internet coverage on internet news consumption and internet use

	OLS			
	Internet news		Internet use	
	(1)	(2)	(3)	(4)
Internet coverage	0.900***	1.127***	0.948***	1.217***
	(0.06)	(0.05)	(0.06)	(0.06)
Individual & regional controls	Yes	Yes	Yes	Yes
Country controls	Yes	No	Yes	No
Round FE	Yes	No	Yes	No
Country X Round FE	No	Yes	No	Yes
Ethnic homeland FE	No	No	Yes	Yes
Observations	120,988	120,988	120,859	120,859
Adjusted-R^2	0.092	0.148	0.100	0.158

Notes: Robust standard errors clustered at the region x round level are in parentheses. The set of individual controls includes measures of: normalized distance from the capital normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, interest in politics, TV news consumption, radio news consumption, newspaper consumption. Border samples regressions also include a measure of ethnic discrimination. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. The set of country controls includes: log(GDP.p.c.), log(area), V-Dem Polyarchy index, World Bank corruption index, political regime type, colonial origin. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

Table 8: Effect of distance from the capital on trust in president and parliament

	OLS							
	Trust in president				Trust in parliament			
	Base sample		Border sample		Base sample		Border sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Distance from the capital	0.316***	0.292***	0.733***	0.259	0.285***	0.305***	0.531***	0.470***
	(0.05)	(0.04)	(0.18)	(0.18)	(0.04)	(0.03)	(0.14)	(0.15)
Individual & regional controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country controls	Yes	No	Yes	No	Yes	No	Yes	No
Round FE	Yes	No	Yes	No	Yes	No	Yes	No
Country X Round FE	No	Yes	No	Yes	No	Yes	No	Yes
Ethnic homeland FE	No	No	Yes	Yes	No	No	Yes	Yes
Observations	105,993	110,439	10,642	11,772	104,535	108,982	10,534	11,667
Adjusted-R^2	0.084	0.138	0.173	0.200	0.095	0.134	0.086	0.120

Notes: The border sample includes individuals residing within a 40-kilometer buffer around a country border that overlaps with a historical ethnic homeland, as defined by Murdock (1959). Robust standard errors clustered at the region x round level for the base sample and ethnic homeland x region x round level for the border sample are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, interest in politics, TV news consumption, radio news consumption, newspaper consumption. Border samples regressions also include a measure of ethnic discrimination. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. The set of country controls includes: log(GDP.p.c.), log(area), V-Dem Polyarchy index, World Bank corruption index, political regime type, colonial origin. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

Table 9: Effect of distance from the capital on political trust - Different distance measures

	OLS											
	Political trust											
	Base sample		Border sample		Base sample		Border sample		Base sample		Border sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Distance from the capital (in 10km)	0.004***	0.003***	0.009***	0.003								
	(0.00)	(0.00)	(0.00)	(0.00)								
log(Distance from the capital)					0.039***	0.042***	0.158***	0.088**				
					(0.01)	(0.01)	(0.04)	(0.04)				
Distance from the capital (mean normalization)									0.107***	0.101***	0.234***	0.107**
									(0.02)	(0.01)	(0.05)	(0.05)
Individual & regional controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country controls	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Round FE	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Country X Round FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Ethnic homeland FE	No	No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes
Observations	107,117	111,570	10,790	11,924	107,117	111,570	10,790	11,924	107,117	111,570	10,790	11,924
Adjusted-R^2	0.107	0.156	0.142	0.172	0.103	0.154	0.139	0.173	0.105	0.156	0.141	0.172

Notes: The border sample includes individuals residing within a 40-kilometer buffer around a country border that overlaps with a historical ethnic homeland, as defined by Murdock (1959). Robust standard errors clustered at the region x round level for the base sample and ethnic homeland x region x round level for the border sample are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, interest in politics, TV news consumption, radio news consumption, newspaper consumption. Border samples regressions also include a measure of ethnic discrimination. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. The set of country controls includes: log(GDP.p.c.), log(area), V-Dem Polyarchy index, World Bank corruption index, political regime type, colonial origin. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

Table 10: Effect of distance from the capital on political trust - Non-linearity

	OLS											
	Political trust											
	Base sample		Border sample		Base sample		Border sample		Base sample		Border sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Distance from the capital (Q2)	-0.005	-0.005	0.132	0.156*								
	(0.03)	(0.02)	(0.11)	(0.09)								
Distance from the capital (Q3)	-0.026	-0.021	0.269**	0.193*								
	(0.04)	(0.03)	(0.13)	(0.10)								
Distance from the capital (Q4)	0.102***	0.102***	0.371***	0.214**								
	(0.03)	(0.02)	(0.14)	(0.11)								
Distance from the capital (Q5)	0.170***	0.165***	0.379***	0.169								
	(0.04)	(0.03)	(0.14)	(0.11)								
Distance from the capital					-0.438***	-0.252**	1.250***	1.019**	-0.981***	-0.537**	1.923**	2.642***
					(0.15)	(0.11)	(0.48)	(0.40)	(0.38)	(0.26)	(0.89)	(0.76)
Distance from the capital^2					0.832***	0.621***	-0.619	-0.669**	2.320**	1.404**	-2.227	-4.725***
					(0.16)	(0.12)	(0.41)	(0.34)	(0.91)	(0.64)	(1.78)	(1.65)
Distance from the capital^3									-1.077*	-0.567	1.043	2.658**
									(0.61)	(0.45)	(1.11)	(1.05)
Individual & regional controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country controls	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Round FE	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Country X Round FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Ethnic homeland FE	No	No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes
Observations	107,117	111,570	10,790	11,924	107,117	111,570	10,790	11,924	107,117	111,570	10,790	11,924
Adjusted-R^2	0.106	0.157	0.138	0.173	0.107	0.157	0.141	0.173	0.108	0.157	0.141	0.174

Notes: The border sample includes individuals residing within a 40-kilometer buffer around a country border that overlaps with a historical ethnic homeland, as defined by Murdock (1959). Robust standard errors clustered at the region x round level for the base sample and ethnic homeland x region x round level for the border sample are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, interest in politics, TV news consumption, radio news consumption, newspaper consumption. Border samples regressions also include a measure of ethnic discrimination. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. The set of country controls includes: log(GDP.p.c.), log(area), V-Dem Polyarchy index, World Bank corruption index, political regime type, colonial origin. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

Table 11: Effect of distance from the capital on political trust - Different border samples

	OLS			
	Political trust			
	30-km buffer		50-km buffer	
	(1)	(2)	(3)	(4)
Distance from the capital	0.629***	0.147	0.561***	0.274*
	(0.16)	(0.19)	(0.14)	(0.14)
Individual & regional controls	Yes	Yes	Yes	Yes
Country controls	Yes	No	Yes	No
Round FE	Yes	No	Yes	No
Country X Round FE	No	Yes	No	Yes
Ethnic homeland FE	No	No	Yes	Yes
Observations	7,568	8,543	13,352	14,729
Adjusted-R^2	0.135	0.173	0.138	0.167

Notes: Robust standard errors clustered at the ethnic homeland x region x round level for the border samples are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, interest in politics, TV news consumption, radio news consumption, newspaper consumption. Border samples regressions also include a measure of ethnic discrimination. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. The set of country controls includes: log(GDP.p.c.), log(area), V-Dem Polyarchy index, World Bank corruption index, political regime type, colonial origin. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

Table 12: Effect of distance from the capital on political trust - Media consumption

	OLS											
	TV news				Radio news				Newspaper			
	Base sample		Border sample		Base sample		Border sample		Base sample		Border sample	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Distance from the capital	-0.536***	-0.531***	-0.371**	-0.361**	0.057	0.007	-0.221	-0.306	-0.113***	-0.081***	-0.079	0.075
	(0.04)	(0.04)	(0.15)	(0.18)	(0.05)	(0.04)	(0.16)	(0.20)	(0.04)	(0.03)	(0.10)	(0.12)
Individual & regional controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country controls	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Round FE	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Country X Round FE	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Ethnic homeland FE	No	No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes
Observations	108,766	113,243	10,976	121,15	108,766	113,243	10,976	12,115	108,766	113,243	10,976	12,115
Adjusted-R^2	0.458	0.469	0.436	0.445	0.151	0.181	0.178	0.196	0.360	0.378	0.342	0.349

Notes: The border sample includes individuals residing within a 40-kilometer buffer around a country border that overlaps with a historical ethnic homeland, as defined by Murdock (1959). Robust standard errors clustered at the region x round level for the base sample and ethnic homeland x region x round level for the border sample are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, interest in politics. Each media consumption measure (TV, radio, newspaper) is excluded from controls when it is the dependent variable. Border samples regressions also include a measure of ethnic discrimination. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. The set of country controls includes: log(GDP.p.c.), log(area), V-Dem Polyarchy index, World Bank corruption index, political regime type, colonial origin. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.

Table 13: Effect of distance from the capital on internet news

	OLS			
	Internet news			
	Base sample		Border sample	
	(1)	(2)	(3)	(4)
Distance from the capital	-0.080***	-0.065**	0.049	0.074
	(0.03)	(0.03)	(0.09)	(0.09)
Individual & regional controls	Yes	Yes	Yes	Yes
Country controls	Yes	No	Yes	No
Round FE	Yes	No	Yes	No
Country X Round FE	No	Yes	No	Yes
Ethnic homeland FE	No	No	Yes	Yes
Observations	107,592	112,051	108,86	12,019
Adjusted-R^2	0.422	0.432	0.387	0.386

Notes: The border sample includes individuals residing within a 40-kilometer buffer around a country border that overlaps with a historical ethnic homeland, as defined by Murdock (1959). Robust standard errors clustered at the region x round level for the base sample and ethnic homeland x region x round level for the border sample are in parentheses. The set of individual controls includes measures of: normalized distance from the largest non-capital city, distance to the road, age, age squared, sex, education, employment status, rural/urban situation, personal economic conditions perception, interest in politics, TV news consumption, radio news consumption, newspaper consumption. Border samples regressions also include a measure of ethnic discrimination. The set of regional controls includes measures of: nighttime light, population density, region area, president birthplace dummy. The set of country controls includes: log(GDP.p.c.), log(area), V-Dem Polyarchy index, World Bank corruption index, political regime type, colonial origin. *** / ** / * represent significance at the 0.01 / 0.05 / 0.10 levels, respectively.