Terrorism and preference for democracy: Evidence from Africa

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ABSTRACT. Does terrorism affect citizens' preference for democracy? It is often asserted that terrorism intimidates the public inasmuch as the public would willingly give up democratic freedoms for safety. I study the effect of terrorist attacks on preference for democracy by comparing reported preference for democracy shortly before and after terrorist attacks in several African countries. The results alleviate concerns that the collectively experienced trauma of terrorism compromises preference for democracy. On the contrary, I document increased preference for democracy in response to terrorist attacks. This consideration is especially important for understanding the democratization process many young African democracies are undergoing. The empirical results are robust to a number of tests, including a correction for spatial confounding which is a so far unaddressed issue in similar empirical setups.

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1 Introduction

Terrorism is pervasive in Africa, but varies greatly across countries (see Figure 1). From 2005-2015 the Global Terrorism Database (GTD) lists 7644 terrorist attacks on the continent (University of Maryland, 2019). Despite the surge of scholarly interest in terrorism after September 11, 2001, terrorism in Africa remains less salient in the academic literature. This general observation holds particularly for the relationship of terrorism and democracy. Yet, many African democracies are young, and therefore, especially vulnerable (Fearon and Laitin, 2003). Commentators suggest that terrorists try to capitalize on this vulnerability . A typical strategy of terrorists, employed, for example, by Al Quaeda affiliated organizations in the Sahel, is to undermine governments' legitimacy by violently disrupting order and offering themselves as alternative providers of order instead (Byman, 2019). After all, providing public safety is a fundamental function of the state. Hence, understanding whether terrorist attacks successfully persuade people to reject democracy is crucial. Existing evidence from Pakistan indeed documents a negative correlation between exposure to terrorism and preference for democracy (Rehman and Vanin, 2017). Theoretical work agrees that preference for democracy is foundational for the emergence and stability of democratic states (e.g., Przeworski, 1991, 2005; Fearon, 2011). Hence, this research adds important insights to our understanding of democratic transition, the stability of democracies (and non-democracies) and democratic resilience in the face of terrorism.

Ghatak et al. (2019, 440-441) summarize the open debate on whether democracy promotes or impedes terrorism. Some scholars argue that democracy in itself prevents terrorism by offering peaceful means of conflict resolution through participation (Schmid, 1992; Windsor, 2003). Others oppose that democratic freedoms allow terrorists to organize and act in the first place (Eubank and Weinberg, 2001; **?**). Since this debate is far from closed, it is unclear whether a rational citizen would favor more or less democracy to reduce the risk of terrorism. For the democratization of a country, however, it is of great importance whether citizens believe that democracy attracts terrorism or not.

Notably, beyond Africa, a popular argument in the debate on the global rise of radical, populist parties on the far right states that voters may be willing to sacrifice some democratic freedoms to protect against terrorist threat Giavazzi et al. (2020). The effects of terrorism on voting behavior have already attracted considerable scholarly interest, see, e.g., Berrebi and Klor (2008); Kibris (2011); Montalvo (2011); Getmansky and Zeitzoff (2014) and Balcells

and Torrats-Espinosa (2018). Van Hauwaert and Huber's (2020) find a positive causal effect of terrorism on in-group solidarity and out-group hostility for the case of the attacks in France 2015. In-group solidarity is a potentially important mechanism in forming regime preferences. Relative to the evidence from Rehman and Vanin (2017), who find a negative association between terrorism and pro-democratic attitudes, this research adds controversial evidence with a clear causal interpretation.

Existing research shows, collective experience and exposure to violence hold the potential to influence individuals preferences in various domains (e.g., Voors et al., 2012; Rohner et al., 2013; Depetris-Chauvin et al., 2018). Acts of terror expose people to violence and are collectively experienced in affected societies. In this paper, I document that terrorist attacks affect preference for democracy positively. On average, individuals become about 3 percentage points (pp) more likely to report democracy as the preferred form of government in response to an attack in their country. This corresponds to roughly 8% of those not preferring democracy ex ante changing their opinion in favor of democracy. Matching geo- and time-coded data from Afrobarometer (AfB) surveys and terrorism events from the GTD allows comparing reported preferences closely before and after an attack within a country, which allows to identify a causal effect under relatively mild assumptions. The strategy is similar to Depetris-Chauvin et al.'s (2018), who study the effect of a collective experience (national football games' outcomes) on national versus ethnic identity. Identifying the causal effect of terrorism on any social, political or economic variable is otherwise plagued by simultaneity issues, as described by Abadie (2006).

The paper is structured as follows: In section 2 I will outline the theoretical framework for analyzing terrorism's impact on preference for democracy . In section 3, I will give a descriptive account of terrorism and political attitudes in Africa and introduce the data set. Section 4 covers the empirical analysis: identification strategy, results and robustness tests. Section 5 concludes by discussing implications of the findings for democratization.

2 Terrorism and preference for democracy - conceptual framework

In this section I lay out the conceptual framework for analyzing how terrorism as a collectively experienced shock impacts preferences for democracy. A regime is characterized by its location on a scale from non democratic to a full democracy. Hence, democratization is conceived as

regime change in the direction of the democratic ideal. In the same way I conceive of preference for democracy as a regime preference in terms of proximity to the democratic ideal.

Terrorist attacks are conceived of as use of illegal force or violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion or intimidation (University of Maryland, 2019). Moreover, terrorist attacks are collectively experienced in the affected society, which is useful for perpetrators' intention of disrupting the general sense of safety. Even people not physically affected can suffer psychologically from terrorist attacks (Strebel and Steenbergen, 2017; Stovall-McClough and Cloitre, 2006, 118-123). Social identity theory suggest that the collective experience is channeled through joint identities of those who were physically targeted and those who were not (Hogg, 2016). The identity channel is an effective way for perpetrators to promote fear and intimidation. Recent research suggests that identity plays an important role in forming political preferences, (e.g., Dehdari and Gehring, 2019; Depetris-Chauvin et al., 2018; Johnson, 2015). It is well known that both collectively and individually perceived threat increases in response to terrorist attacks (Strebel and Steenbergen, 2017; Sinclair and Antonius, 2012, 89).

A large literature suggests that both collective experiences (Depetris-Chauvin et al., 2018) and experiences of violence (Rohner et al., 2013), but also stress (Kandasamy et al., 2014) and fear (Hatemi et al., 2013) can alter individual preferences. Studies of the effects of natural disasters on preferences suggest that time preferences, risk preferences, trust and electoral preferences are affected by such traumatic events (Malmendier and Nagel, 2011; Voors et al., 2012; Bauer et al., 2014; Lazarev et al., 2014; Callen et al., 2014; Cassar et al., 2017; Fair et al., 2017; Hanaoka et al., 2018). Further, some studies suggest terrorism as a cause for changes in preferences. For electoral preferences, on the one hand, Montalvo (2011) finds weaker support for the incumbent in response to a terror attack in Spain 2004. On the other hand, Balcells and Torrats-Espinosa (2018) finds no effect of terror attacks on the incumbent's vote share but increased turnout. Van Hauwaert and Huber (2020) document higher in-group solidarity and lower out-group solidarity after the November 2015 attacks in France. Rehman and Vanin (2017) find a negative correlation between terrorism and pro-democratic attitudes in Pakistan.

I assume citizens to form regime preference in an instrumentally rational way, based on perceived threat. When terrorists strike, expectations about security in the future deteriorate (Bozzoli and Müller, 2011; Strebel and Steenbergen, 2017), economic (Abadie and Gardeazabal, 2003) and human rights repercussions may be feared (Dreher et al., 2010), and overall,

well-being will be impaired (Frey et al., 2007). The state failed to provide public safety, one of the most fundamental public goods. Given the lively and controversial debate on democracy's role in protecting against terrorism, it is very plausible that citizens attribute the failure to protect against terrorism to the regime's type. However, some citizens may attribute occurring terrorist attacks to too much democratization, while others may attribute it to too little democratization - similar to the divided opinion camps of scholars in the field (Ghatak et al., 2019, 441).

A common fear noted by observers is that terrorism may impede democratization (Byman, 2019). Indeed, when citizens follow the lines of the camp of scholars promoting the argument that democracy allows terrorism to flourish (e.g., Eubank and Weinberg, 2001; **?**), citizens may be willing sacrifice democratic institutions for the sake of more security, when the traumatic experience of a terrorist attack boosts the perceived terrorism risk. Hence, the hypothesis put to the test here is whether the experience of a terrorist attack decreases citizens stated preference for democracy.

3 Data

3.1 Terrorism in Africa

Unfortunately terrorist activity is a pervasive feature of some African countries. As a consequence of the events of September 11, 2001 and the subsequent international counter terrorism policy, also terrorism within African countries has received increased scholarly attention (Elu and Price, 2015). Elu and Price (2012) document that 4993 terrorist attacks had taken place in sub-Sahara Africa between 1974 and 2008. The GTD lists 7644 terrorism attacks during 2005-2015 on the continent (University of Maryland, 2019). The distribution of attacks over countries in this 10 year span shows remarkable variation in the number of incidents. A majority of countries experienced a moderate number of attacks but some were ridden by constant terrorist attacks (compare Figure 1). Between 2005 and 2015, 45% of all African countries had 12 or less attacks, 72,5% of countries experienced 58 or less attacks, but the top 27,5% of all countries experienced more than 120. While those aggregate numbers certainly help underscoring the relevance of terrorism in Africa, the GTD offers much more detailed information which allows for a more detailed investigation, including exact dates and geolocation

(longitude and latitude), which are especially relevant for this study [1]

3.2 Survey data on political attitudes

The Afrobarometer (AfB) surveys offer a unique geo and time coded data set containing questions on economic, social and political attitudes, participation and outlooks. AfB is nationally representative and covers multiple countries per round. For rounds 2-6, most questions can be compared across countries and rounds[2]. Since I match terrorist attacks to interviews by country and timing, I use an ex ante sample of all interviews of rounds 2-6. After the matching procedure detailed in Section 3.3, I end up using only data from rounds 4, 5 and 6. AfB includes several questions that allow to explore regime preference, attitudes towards democracy and trust in institutions, see Table 1. Question 1, 2 and 3 in Table 1 are of particular interest, as they pick up regime preference (1), perceived condition of the democracy (2) and satisfaction with how democracy works (3). Question 1 is the main outcome of interest. Moreover, I draw on a series of surveyed individual socioeconomic and demographic features as control variables, including education level, age, past and present economic conditions, employment status[3], gender and religion.

The outcome of interest is an individual's regime preference. The respondent is asked to indicate which statement of the following three is closest to his or her own opinion (compare Table 1):

A: *"Democracy is preferable to any other kind of government."*

B: *"In some circumstances, a non-democratic government can be preferable."*

C: *"For someone like me it doesn't matter what kind of government we have."*

In the main empirical analysis I will pool statements B and C since option A is clearly indicative of strong support for democracy while B and C are not.

[1] GTD also includes attack types, target/victim characteristics, perpetrator characteristics and casualties and economic damage estimates but the selection of only ten cases for the final sample does not allow for a quantitative assessment of those features.

[2] Round 1 differs more, yet, it offers some comparable questions, however, it is not date coded and thus does not fit the purpose of the study design.

[3] Coding of employment status slightly changed from round 4 to 5 from a 6 item scale to a 4 item scale. Coding prior to round 5: 0=No (not looking), 1=No (looking), 2=Yes, part time (not looking), 3=Yes, part time (looking),4=Yes, full time (not looking), 5=Yes, full time (looking). Coding in round 5 and later: 0=No (not looking), 1=No (looking), 2=Yes, part time, 3= Yes, full time. Since the top 4 categories on the 6 item scale logically correspond to the top 2 categories of the 4 item scale I aggregate those to ensure comparability.

In general it can be observed that for all country-year tuples most people prefer democracy over any other form of government. In total around 70% of individuals in thefull sample (before matching, compare Figures 7 and 8 for a selection) and final sample (after matching, compare Figures 4 and 6) report democracy as their preferable form of government. Moreover, the figures show that, although there exists some degree of consensus support for democracy, there is considerable variation across countries and within countries over the years. In the full sample, country-year pairs display a remarkable range in approving of democracy as the preferred regime, from 36% (Madagascar 2008) to 88% (Senegal 2013).

Another key variable is the perceived condition of democracy in the own country, compare Table 1, line 2. The respondent is offered four answer options, coded on a 1 to 4 scale, when asked how much of a democracy the own country is.

1 *"not a democracy at all"*

2 *"a democracy with major problems"*

3 *"a democracy with minor problems"*

4 *"a full democracy"*

The distribution of the perceived democratic condition by country-year for the final sample is displayed in Figure 5.

Satisfaction with how democracy works is another variable to consider. Compare Table 1, line 3. Answer categories are coded as follows:

0 *[COUNTRY] is not a democracy*

1 *Not at all satisfied*

2 *Not very satisfied*

3 *Fairly satisfied*

4 *Very satisfied*

Table 2 reveals the weakness of the question design. The scarce use of 0 for satisfaction with democracy may come about, because both 0 and 1 can be true at same tame. Ideally one would expect that all who answer 1 for the condition of democracy also answer 0 for the satisfaction with democracy, because in both cases no democracy would be true. Yet,

being not satisfied at all or not very satisfied with how democracy works, when the country is perceived as not democratic could also be interpreted as sensible answers from the interviewees perspective. It is reassuring that the clear inconsistencies in the first column (0), lines 3 and 4, and line 1 column (4), are relatively scarcely populated. Anyway, as long as misinterpretation of the question is random, i.e. when we are dealing with random measurement error, worst case would be attenuation.

3.3 Matching survey and terrorism data

With both data sets, AfB and GTD, being time and geocoded, I can match interviews to attacks in the same country by setting a time frame around an attack an keeping only those interviews falling within the time frame around an attack. Using a ±30 day search window around a terrorist attack yielded 33 cases of attacks where someone was interviewed within the search window [4]. From those 33, 14 cases were dropped, because all interviews lay either before or after the respective attack, allowing for no pre post attack comparison. The remaining 19 cases are displayed in Table 3. In the upper panel, the 10 cases eventually selected for the main sample are shown. Due to attacks happening close in time to either the beginning or end of AfB interview periods either the control or treatment group consists of too few observations such that 9 further cases were dismissed[5]. A threshold of 124 observations as the lower bound of minimum observations per group seems to be a reasonably conservative choice [6]. Usually attacks or series of attacks are uniquely identified by country-year-pairs corresponding also to AfB survey rounds. Nigeria 2012 and 2013 is a special case, where 36 interviews were delayed in time. Field work was conducted in Nigeria 2012 from October 30 to November 18 and 2013 on January 17, 18 and 19. So even though those observations belong to the same round of AfB they are subject to distinct terror attacks and are to be looked at separately.

An observation is coded as treated if the interview occurred after any attack. In 4 cases (Cameroon 2015, Nigeria 2008, Nigeria 2012 and Uganda 2008) a series of attacks had occurred over multiple days. The remaining attacks are all singular events. Using a continuous treatment variable distorts the impact of those observations in a country-year pair with a higher number of attacks. E.g., only Nigeria 2012 has experienced more than 9 attacks (24),

[4] The ±30 day search window did not prove to be a binding restriction, since interview periods were typically shorter (compare Table 3).

[5] Note that all results presented in the paper are robust to including all 19 cases.

[6] Note that results also hold up to an even more conservative selection, excluding Ivory Coast 2013, Mali 2008, Nigeria 2012, where group size seems sufficiently large but attack timing is very close to the beginning or end of interview periods, thus resulting in temporal imbalance.

so any estimate using a continuous treatment would draw exclusively on outcome variation within Nigeria for the treatment range from 10 to 24, which is a larger range than the rest treatment variables would assume in the remaining sample [7]. A binary treatment definition relying on the occurrence of the first attack when there are multiple seems to be the most straight forward approach.

4 Empirical analysis

4.1 Identification strategy

The causal effect of terrorist attacks on the probability to report democracy as the most preferred form of government is estimated from the following linear regression.

$$\mathbf{D}_{i,a} = \alpha + \beta \mathbf{after}_{i,a} + \gamma \mathbf{X}_{i,a} + \delta_a + \varepsilon_{i,a}, \tag{1}$$

The index i denotes the individual and a denotes the terrorist attack (which is equivalent to a country year tuple). In the main specification $\mathbf{D}_{i,a}$ is a binary indicator that takes on the value 1, when an individual reports that democracy is their preferred regime and 0 otherwise. I also report alternative specifications for $\mathbf{D}_{i,a}$, using the original 3 categories[8]. The treatment indicator variable $\mathbf{after}_{i,a}$ takes on value 1, when an interview was conducted after an attack. Control variables populate the vector $\mathbf{X}_{i,a}$, including, in the richest specification, age, gender, educational attainment, religion, past and present economic living conditions, employment status and week day of the interview. Attack specific fixed effects δ_a ensure that observations before and after the same attack, in the same country, are compared to each other.

Since by construction, observations which ended up in the final sample are temporally clustered in short time frames around attack dates (compare Table 3), estimates for β are causally identified under the assumption that within short time frames there is no scope for endogeneity. The obvious concern over a longer time horizon would be that changes in regime preference may directly or indirectly cause terrorism to occur. While the occurrence of terrorist attacks is in general not orthogonal to regime preferences, within very short time frames the occurrence of an attack is quasi random and not driven by underlying socio-political

[7] Note that the main specification is still robust to a continuous treatment definition although it is a questionable strategy.

[8] Compare Table 1, line 1

processes which may jointly determine preferences for democracy. It seems unreasonable that a terrorist attack at a certain point in time is caused by a change in regime preferences that occurred only 19 days or less prior. This argument is further substantiated when shrinking the time frame down successively as reported in Section 4.3. Assuming there was some underlying long term reverse causality, one may argue that changes in preferences for democracy lead to the occurrence of terrorist attacks thus determining whether or not observations ended up in the final sample. I do not argue against this. However, given the short time frame, the change I observe for this sample across the day of the attack is unlikely driven by the long term process that eventually caused the attack to happen at some point in time. The identifying assumption requires only that within the short time frame the attack date is orthogonal to observed or unobserved variables that may influence regime preference.

4.2 The effect of terrorist attacks on preference for democracy

On average a terrorist attack increases the likelihood to report democracy as the preferred regime by 2.7 to 3.4 pp (see Table 4). When adding controls I face a trade-off between gained precision from additional controls and lost precision due to missing observations in the added controls. It is reassuring that the estimated coefficient remains statistically significant and positive throughout. The result is supported when using a logistic specifications (see Tables 6). The detected effect constitutes a meaningful leaning towards democracy, especially, since country-year-pairs range between averages of 49.4% and 86.1% in reporting democracy as the preferred regime type. Accordingly, the estimated effect amounts to a change of about 9% of the country-year range in reported preference for democracy. In terms of net persuasion at least 8% of those not preferring democracy before a terrorist attack would change their opinion in favor of democracy after experiencing an attack.

4.3 Robustness

4.3.1 Spatial confounding

Spatial confounding poses a major threat to identification. Within countries, regions likely differ in preferences for democracy for various reasons. Since treatment is a function of time and interview locations could potentially be a function of time, e.g., when interviewers moved from east to west or along any other non random path. For some country year tuples eyeballing reveals clear spatial patterns of interview timing, while others at least seem rather random.

The example of Uganda 2008, displayed in Figure 11a, serves as an illustrative example of spatial confounding, where pre-attack observations are more prevalent in the north and west, while post-attack observations are more densely clustered to the south-east.

To ensure that results are not driven by spatial confounding I estimate Equation 1 using only observations within a range of predefined buffer zones. A buffer zone is a circle with a specified radius, drawn around an interview location. Using buffer zones I can ensure to only include observations in the estimation which fall within the a zone around an observation with opposite treatment status. Treated (untreated) observations that are not within any untreated (treated) observations buffer zone are dismissed. Hence, I end up dropping spatial clusters of homogeneous treatment status, leaving me with a smaller but spatially balanced sample that includes only geographically comparable observations. Figure 12a illustrates this process.

Results indicate that even if spatial confounding was present it does not lead to substantially biased results. Figures 13 and 14 show estimated effects along 20 km to 150 km buffer zones and already for relatively small buffer zones the positive effect appears and remains remarkably stable within close range of the initial estimate.

4.3.2 Narrow time frames

A further concern is that time frames may actually be large enough to allow for ongoing trends in regime preferences to cause terrorist attacks to happen, hence, violating the basic identifying assumption. While I believe that this is already quiet unlikely given the small size of time frames in the main sample, there is an easy way to corroborate the argument. To alleviate any concerns about too wide time frames, I re-estimate Equation 1 with restricted samples by shrinking time frames. The results, displayed in Figures 15 and 16, corroborate the initial result. Despite the considerable loss of numbers of observations, even for time frames as narrow as 3-5 days, depending on the specification, the effect appears and remains stable throughout.

4.3.3 Successive exclusion of attacks

To rule out the concern that the effect is driven by a single case of an attack, I successively exclude attacks while re-estimating Equation 1. Results prove to be robust against excluding single cases (compare Figure 17). Estimates do vary, but only slightly and within close range

of the initial estimate.

5 Preferences for democracy and democratization

Since many African democracies are rather young and in many places not fully developed it is important to discuss the presented evidence in the light of theories of democratization in order to understand the larger implications.

Conventional models of democratization and democratic consolidation describe democracy as a a self enforcing equilibrium of the power struggle of citizens against the elite (Locke, 1690; Barro, 1973; Ferejohn, 1986; Fearon, 2011; Acemoglu and Robinson, 2001, 2005). Crudely summarized, elites choose either to make concession or to repress, the former leading to democratization, the latter to the opposite. Citizens can fight for democratization. When the threat of fighting is credible, elites may be willing to make concessions to avoid costly revolt. A crucial input to this tug of war is citizens' preference for democracy. Acemoglu and Robinson cite factors impacting the constraints for elites' and citizens' decision problem as the governing force of regime transitions. However, Acemoglu and Robinson, like most theorists modeling democratization, assume all citizens homogeneously always prefer more democracy. Figures 4, 6 , 8, and 7 show clearly that citizens tend to prefer democracy on average but it is far from always true. There are a number of theoretical arguments, too, eroding the assumption that citizens always prefer democracy, especially in the African context. Political violence appears to be higher in democracies below a certain level of per capita income Collier and Rohner (2008). Further, ethnic cleavages are a prevalent feature of the social and political life in many African countries. Fear of ethnic favoritism by democratically elected governments can promote opposition to democracy and contributes to instability and conflict (Easterly and Levine, 1997; Montalvo and Reynal-Querol, 2005; Esteban et al., 2012; Burgess et al., 2015). Moreover, many African democracies are rather young, therefore more likely to experience insurgencies and civil war (Fearon and Laitin, 2003). Together, this suggests that there may exist a trade-off between democracy and security for citizens of African states. Further, the recent global surge of right-wing populism proves that marketing non-democratic policies based on perceived threats can be successfully applied to convince citizens to voluntarily surrender civil liberties (Couttenier et al., 2019). When some citizens are ready to accept certain non-democratic institutions this means for the tug of war between citizens and the elite, that the weight shifts away from the democratic ideal. The presented empirical evidence

suggest, however, is optimistic. One may have feared, citizens become intimidated by the traumatic experience of terrorism and in turn become more willing to concede democratic freedoms. It lays outside the scope of this work to inspect elites' reactions to terrorist attacks which is why I am careful in drawing a conclusion on the general effect of terrorist attacks on the democratization process. An investigation into the elites reactions to terrorist attacks may prove as a fruitful avenue for future research. At least for the citizens' side I can robustly document that preference for democracy increases in response to terrorist attacks.

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Appendix

Tables

Table 1: Relevant AfB Questions on attitudes towards democracy and trust in institutions.

1	Question: Which of these three statements is closest to your own opinion? A: Democracy is preferable to any other kind of government. B: In some circumstances, a non-democratic government can be preferable. C: For someone like me, it doesn't matter what kind of government we have.
2	Question: In your opinion how much of a democracy is [COUNTRY] today?
3	Question: Overall, how satisfied are you with the way democracy works in [COUNTRY]?
4	How much do you trust each of the following, or haven't you heard enough about them to say: The President?
5	How much do you trust each of the following, or haven't you heard enough about them to say: Parliament?
6	How much do you trust each of the following, or haven't you heard enough about them to say: The Ruling Party?

Figures

Table 2: Cross table of perceived condition of democracy and satisfaction with how democracy works.

	Satisfaction with democracy					
How democratic	0	1	2	3	4	Total
1	174	1266	533	84	21	2078
2	67	1550	2484	1281	124	5506
3	18	387	1401	2441	326	4573
4	13	144	296	786	965	2204
Total	272	3347	4714	4592	1436	14361

Table 3: Treated and untreated observations per matched attacks.

Attack in country year	Exact attack date	Interview period	Before attack	After attack	Total
Included in main specification					
Algeria 2015	04.06.	28.05. - 17.06.	320	880	1,200
Cameroon 2015	28.01. - 08.02.	24.01. - 08.02.	383	799	1,182
Egypt 2013	14.03.	08.03. - 19.03.	922	268	1,190
Ivory Coast 2013	23.03.	11.03. - 26.03.	1,076	124	1,200
Mali 2008	21.12.	15.12. - 31.12.	498	734	1,232
Mali 2014	02.12.	01.12. - 14.12.	168	1,032	1,200
Morocco 2015	05.11.	02.11. - 22.11.	304	896	1,200
Nigeria 2008	16.05. - 22.05.	13.05. - 25.05.	464	1,860	2,324
Nigeria 2012	30.10. - 18.11.	30.10. - 18.11.	173	2,191	2,364
Uganda 2008	15.08. - 18.09.	27.07. - 03.09.	1,408	1,007	2,415
Total			5,716	9,791	15,507
Excluded in main specification					
Algeria 2013			43	1,161	1,204
Egypt 2015			8	1,190	1,198
Mozambique 2015			809	31	840
Niger 2015			50	1,150	1,200
Nigeria 2013			11	25	36
Nigeria 2014			1	64	65
South Africa 2015			2,297	51	2,348
Sudan 2015			16	1,184	1,200
Tunisia 2013			85	1,115	1,200
Total			3,320	5,971	9,291

Table 4: Linear regression on binary indicator of democracy being the preferred form of government.

	(1) D	(2) D	(3) D	(4) D
After attack	0.027***	0.028***	0.032***	0.034***
	(0.009)	(0.009)	(0.010)	(0.010)
Controls added				
Attack FE	✓	✓	✓	✓
Distance, day of week		✓	✓	✓
Demogr., econ.			✓	✓
Dem. cond., satis.				✓
N	14728	14728	12499	11966

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Linear regression on democracy being the preferred form of government.

	(1) D	(2) D	(3) D	(4) D
After attack	0.035**	0.037***	0.042***	0.049***
	(0.014)	(0.014)	(0.016)	(0.015)
Controls added				
Attack FE	✓	✓	✓	✓
Distance, day of week		✓	✓	✓
Demogr., econ.			✓	✓
Dem. cond., satis.				✓
N	14728	14728	12499	11966

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Logistic regression on democracy being the preferred form of government. Marginal effect reported in column (4).

	(1) D	(2) D	(3) D	(4) $\widehat{\Pr}$(D=1)
main				
After attack	0.141***	0.153***	0.169***	0.033***
	(0.046)	(0.047)	(0.053)	(0.010)
Controls added				
Attack FE	✓	✓	✓	✓
Distance, day of week		✓	✓	✓
Demogr., econ.			✓	✓
N	14728	14728	12593	12593

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Marginal effect of terror attack on predicted probability of democratic regime preference across levels of perceived democratic condition in logistic regression.

	(1) $\widehat{\Pr}$(D=1)	
After attack		
× No democracy	0.040	(0.024)
× Dem. major prob.	0.006	(0.015)
× Dem. minor prob.	0.026*	(0.016)
× Full democracy	0.111***	(0.022)
N	11954	

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Linear regression on perceived regime condition (RC).

	(1) RC	(2) RC	(3) RC
After attack	0.023	0.029	0.034
	(0.019)	(0.019)	(0.020)
Controls added			
Attack FE	✓	✓	✓
Distance, day of week		✓	✓
Demogr., econ.			✓
N	14466	14466	12266

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 9: Linear regression on satisfaction with democracy.

	(1) Sat	(2) Sat	(3) Sat
After attack	-0.031	-0.032	-0.044**
	(0.020)	(0.020)	(0.022)
Controls added			
Attack FE	✓	✓	✓
Distance, day of week		✓	✓
Demogr., econ.			✓
N	14723	14723	12592

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure 1: Terrorist attacks by country (log scale)

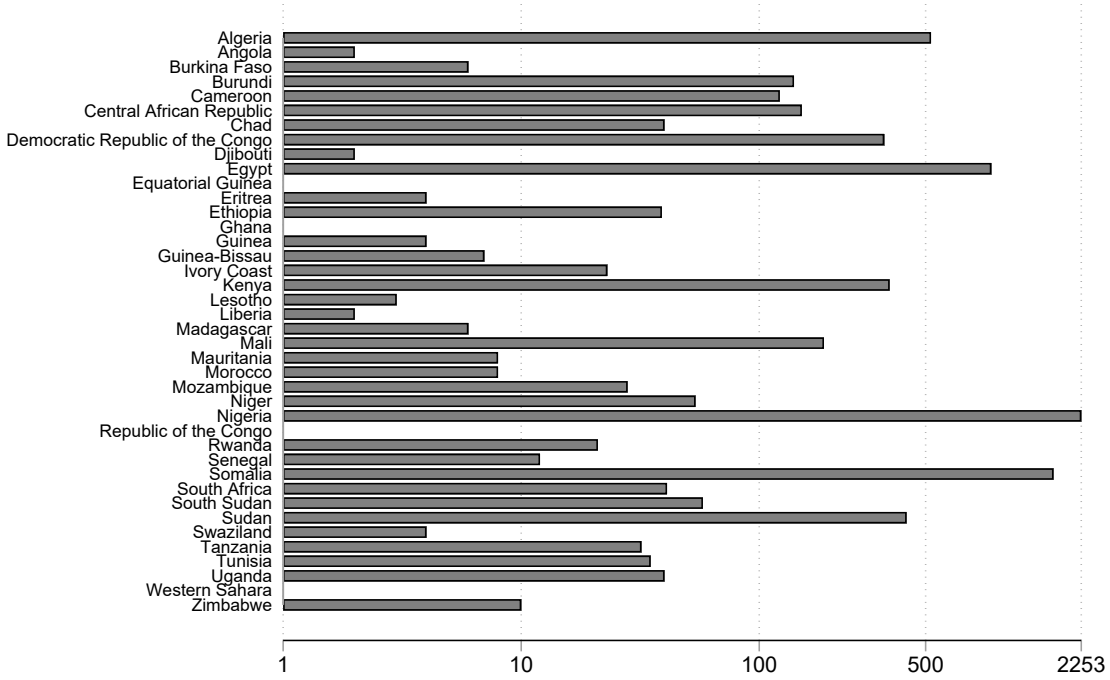


Figure 2: Geocoded AfB interviews and terror attacks over the regions of Africa 2005-2015.

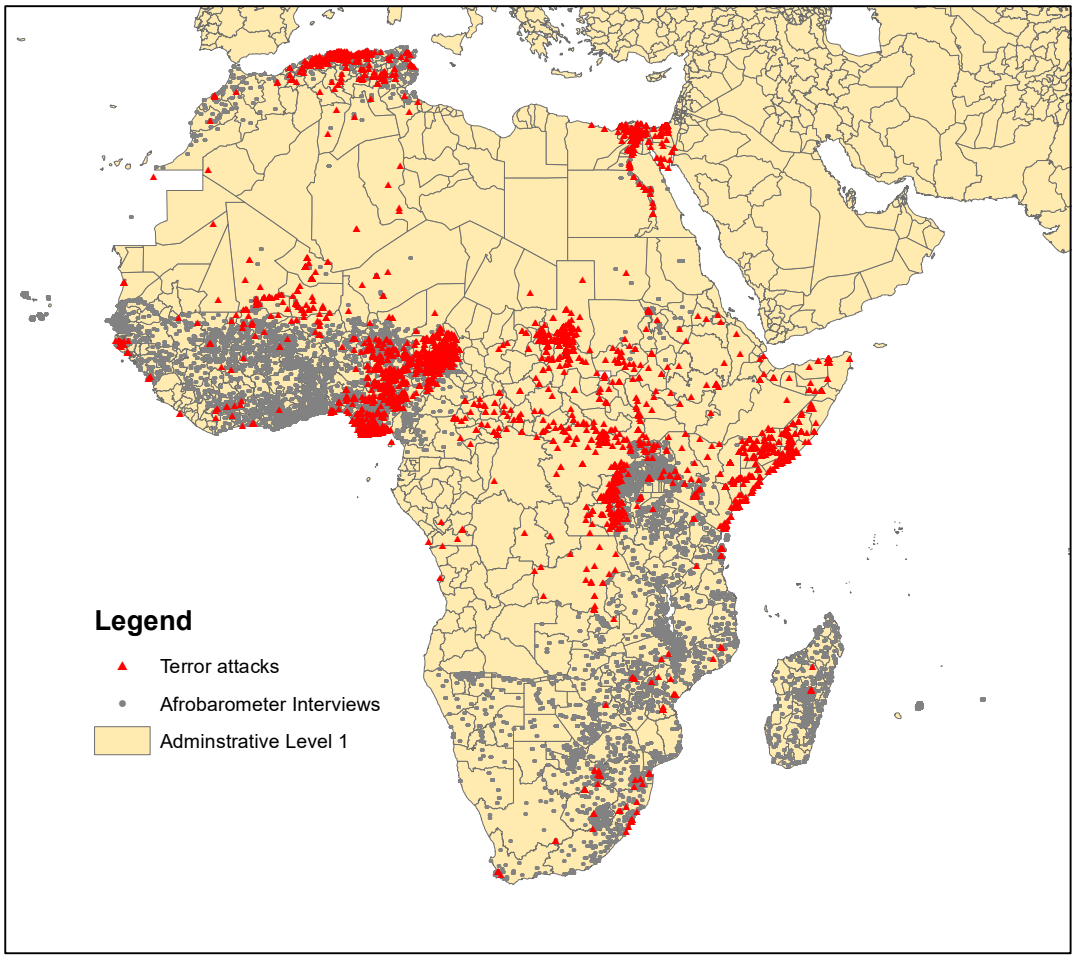


Figure 3: Matched interviews and terrorist attacks. Size indicates number of victims.

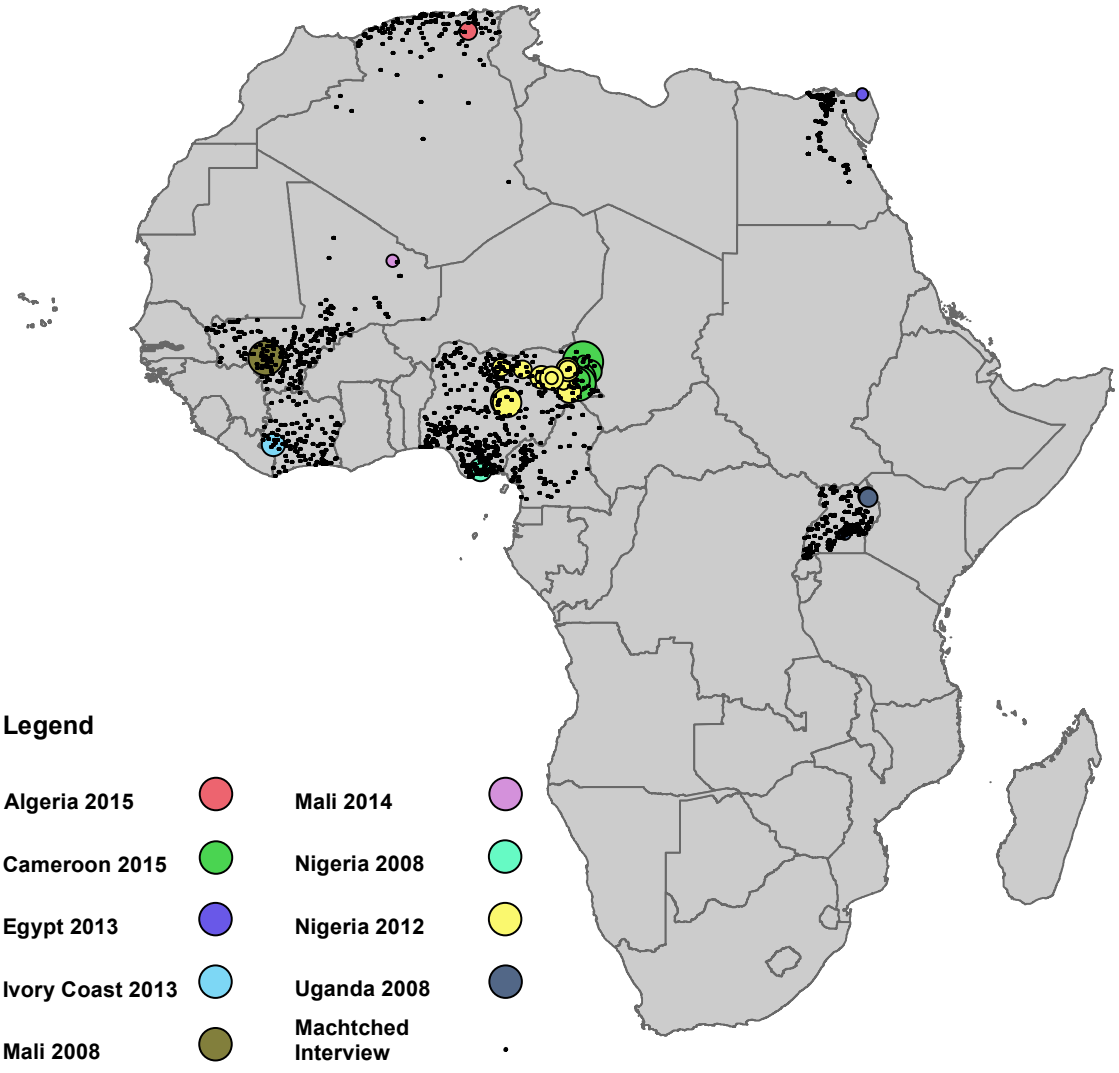


Figure 4: Preference for democracy by country-year pair.

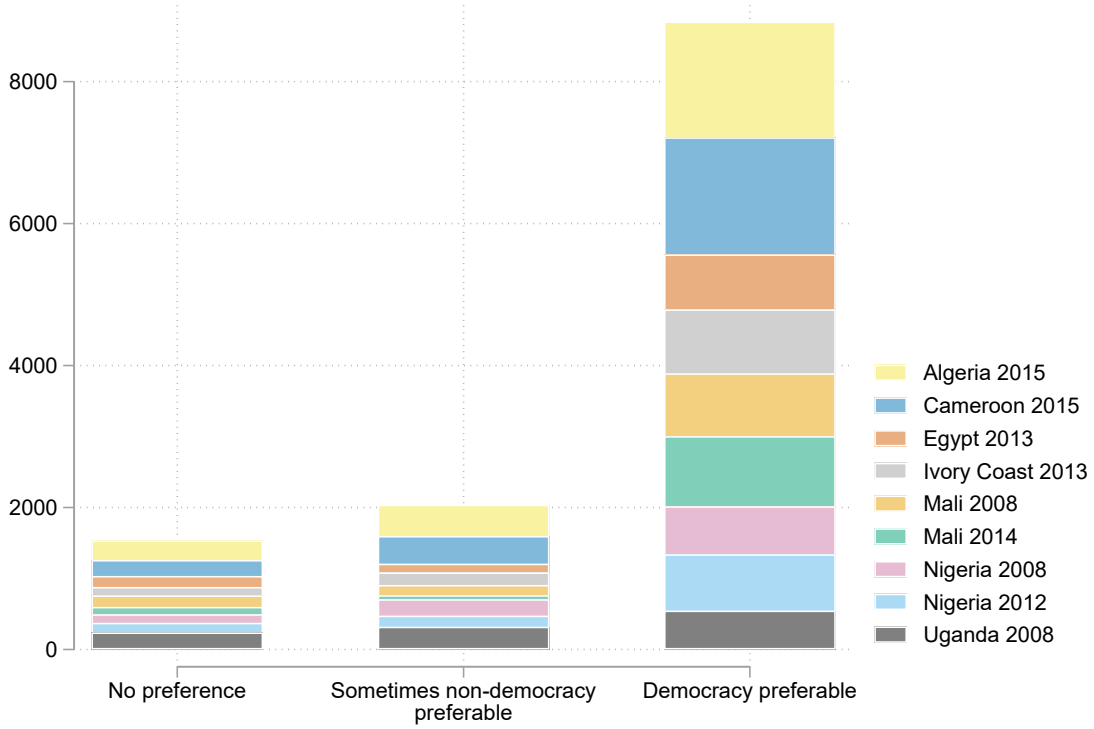


Figure 5: Perceived condition of democracy of the own country by country-year pair.

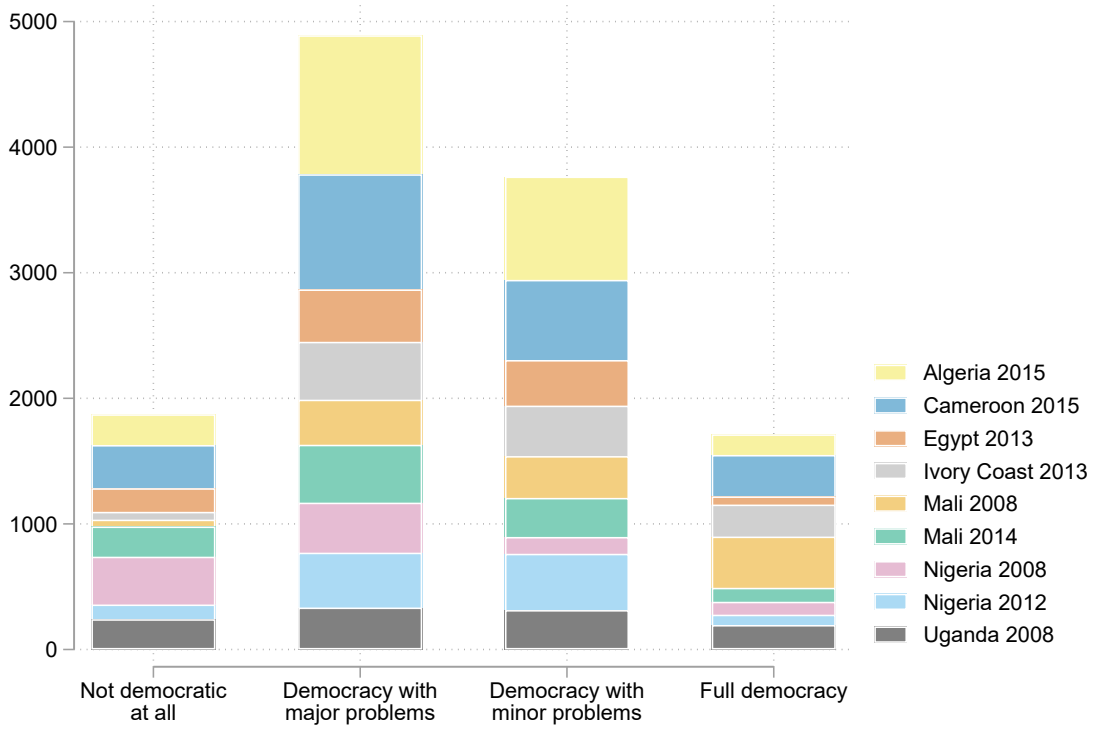


Figure 6: Time trend of preference for democracy in countries of the final sample.

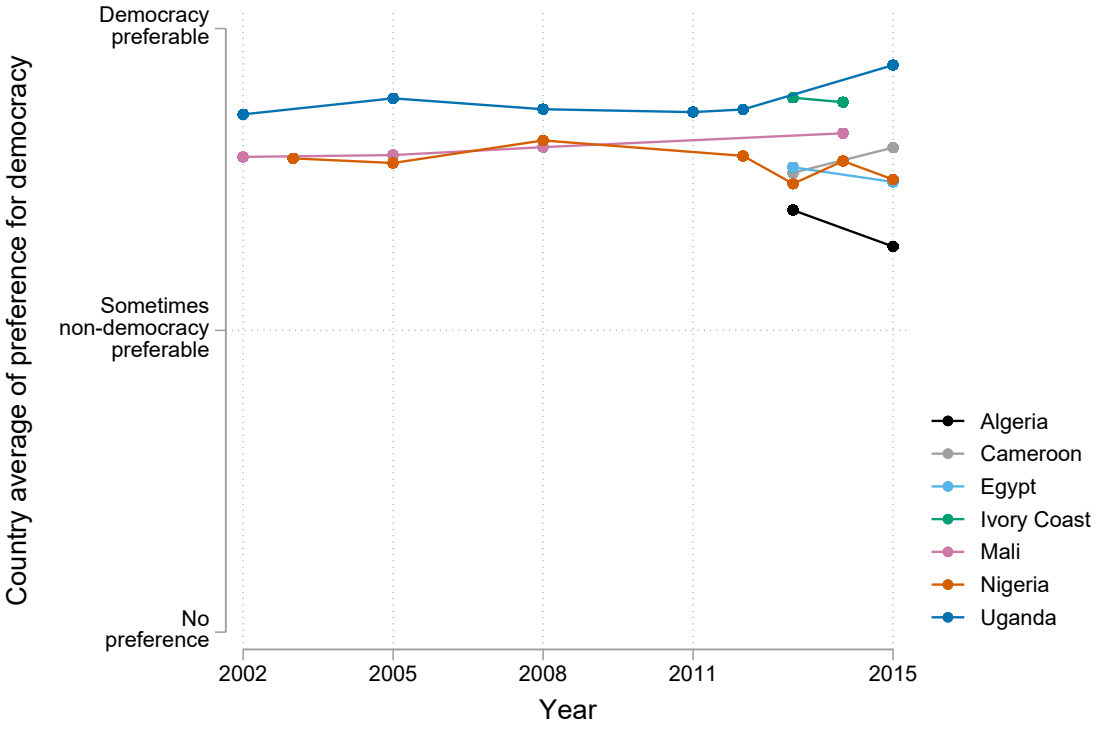


Figure 7: Time trend of the probabilities of reporting democracy being the preferred form of government in countries of the final sample.

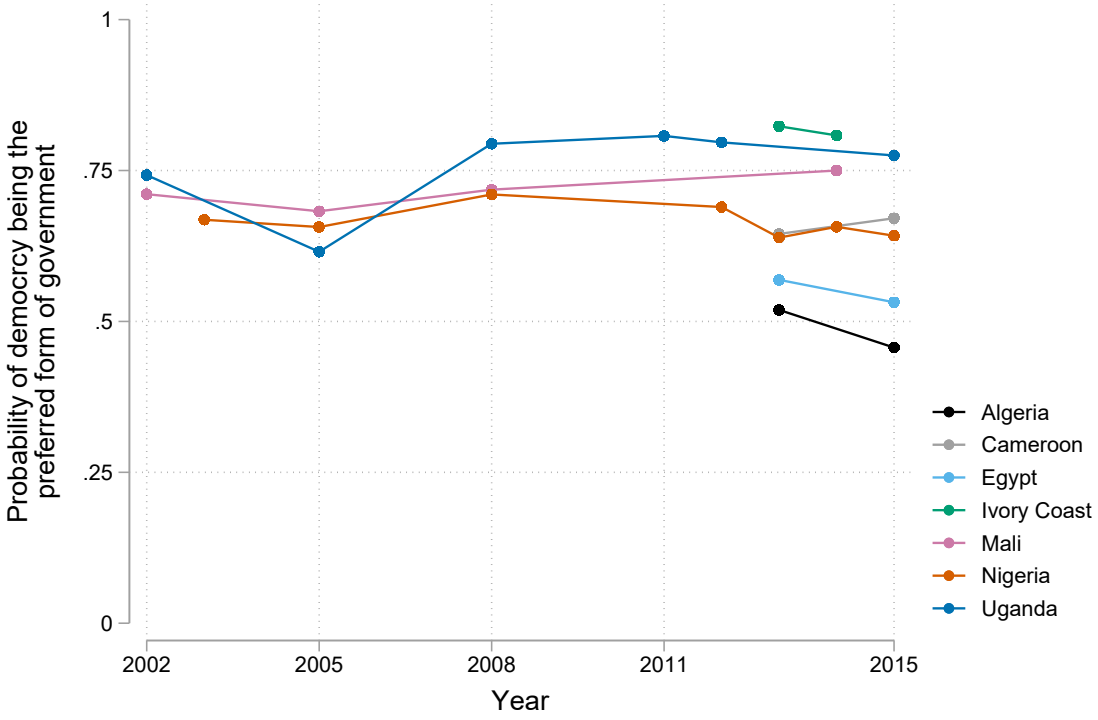


Figure 8: Time trend of the probabilities of reporting democracy being the preferred form of government in selected countries not part of the final sample.

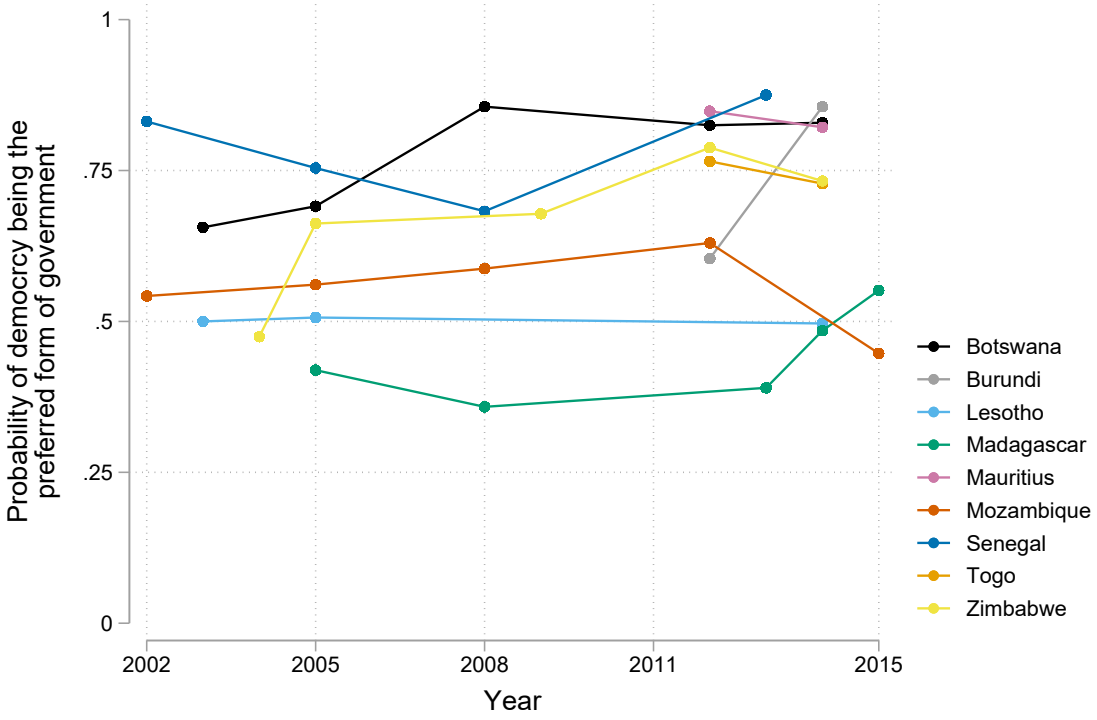


Figure 9: Marginal effects of multinomial logistic regression as changes in predicted probability to report either category in response to a terrorist attack.

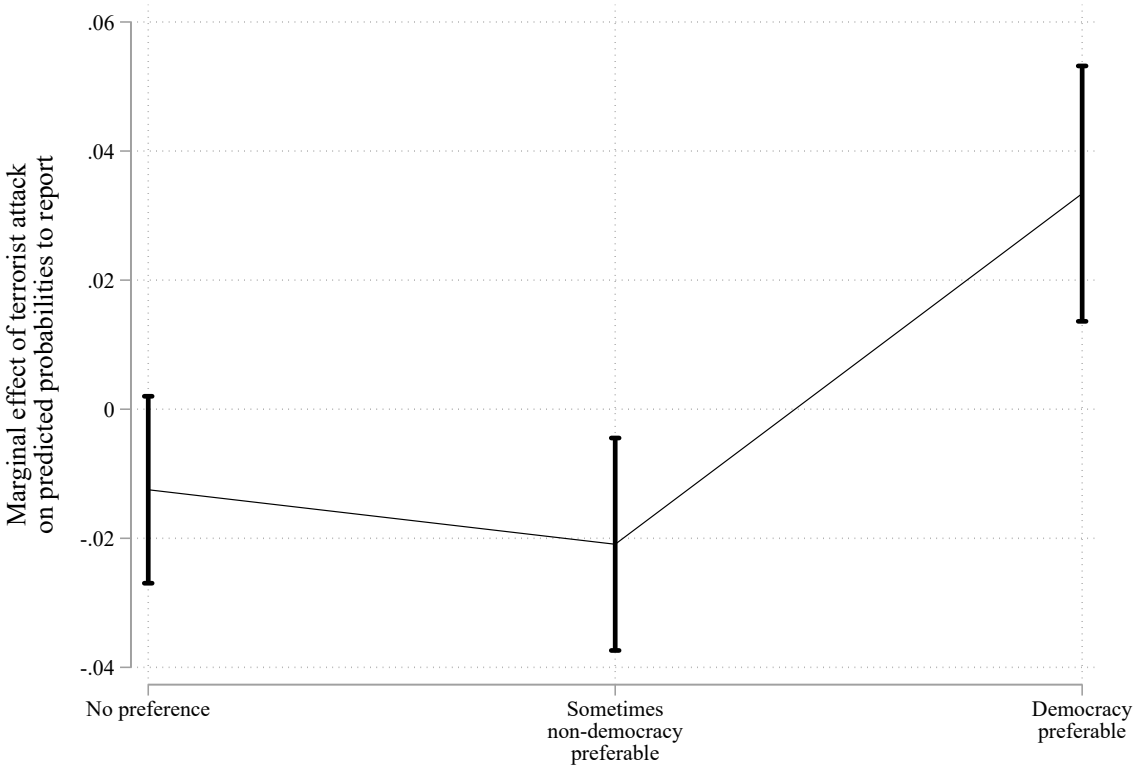


Figure 10: Marginal effects of linear probability model of preference for democracy by levels of perceived condition of democracy (left axis). Reference histogram of perceived condition of democracy (right axis).

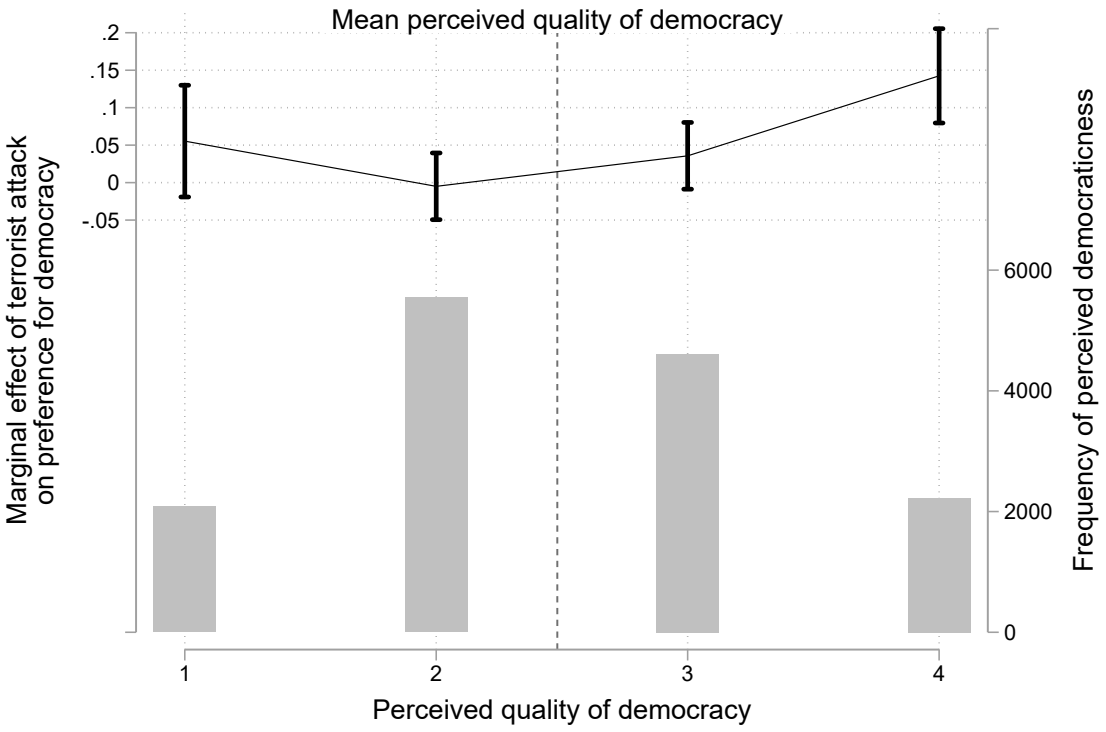
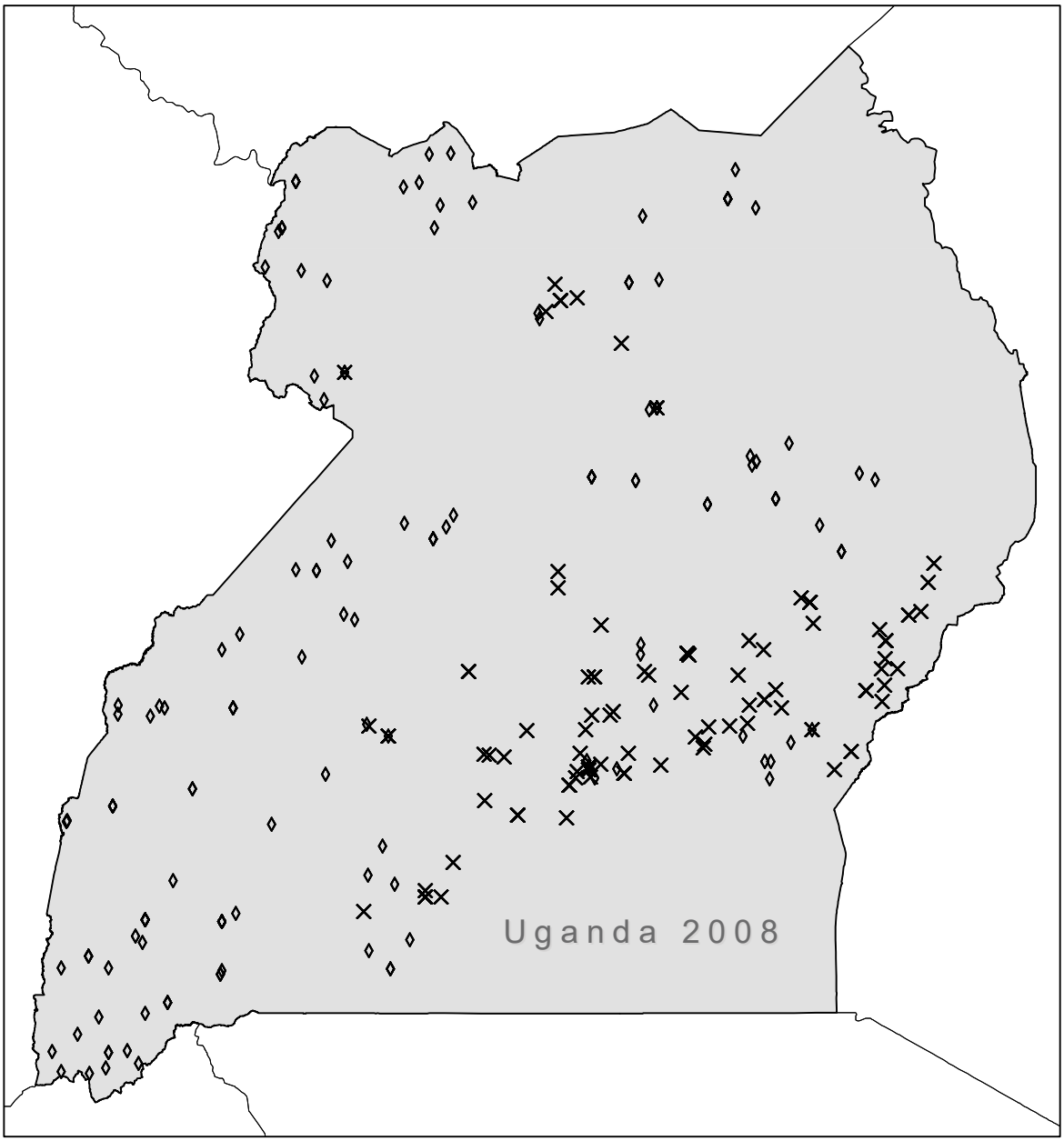
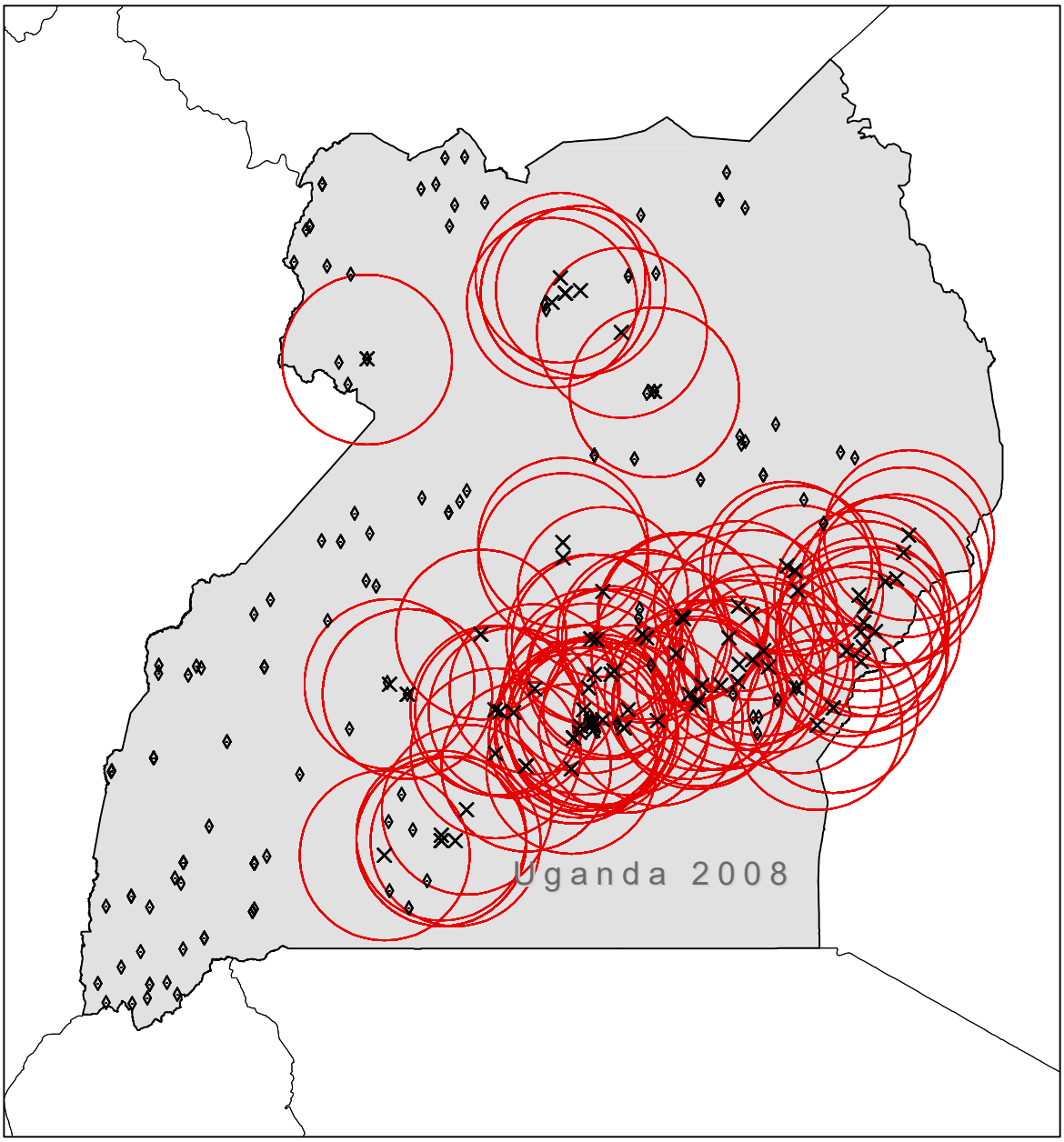


Figure 11: Interviews in Uganda 2008, ◊ represent pre-attack observations, × represents post-attack observations.



(a) *The case of Uganda 2008 nicely illustrates the issue of spatial confounding. The distribution of treated (post-attack) and untreated (pre-attack) observations is a visibly following a spatial pattern. Pre-attack interviews are concentrated more densely in the west and north, while post-attack observation cluster more densely in the south-west. Such a pattern may arise from fieldwork being conducted from north-east to south west. Any comparison of groups across time needs to take into account that spatial distributions of groups depend on time. Hence, geographic characteristics maybe inherently different across groups, causing spatial confounding.*

Figure 12: Interviews in Uganda 2008, ◊ represent pre-attack observations, × represents post-attack observations. Buffer zones with 0.5° radius (approx. 56km at the equator) drawn around post-attack observations.



(a) *This graphic illustrates how spatial buffer zones around post-attack observations work. Red circles are buffer zones. An observation of the post-attack group is only kept in the estimation sample if there exist at least one observation of the pre-attack group within its buffer zone. Vice versa, all pre-attack which fall into the buffer zone of at least one post-attack observation are kept in the estimation sample. This causes spatial clusters of homogeneous treatment status to be excluded from estimation. For the pre-attack group such an excluded cluster is clearly visible in the south-west of Uganda. Note that drawing buffers around pre- or post-attack observations is equivalent. From and illustrative perspective, drawing buffers around post-attack observations will visibly highlight pre-attack spatial clusters, while post-attack spatial clusters remain harder to spot and vice versa.*

Figure 13: Marginal effect of terrorist attack on preference for democracy accounting for spatial confounding by a range of buffer zone radii. Minimal specification without controls. Spikes represent 95% confidence intervals.

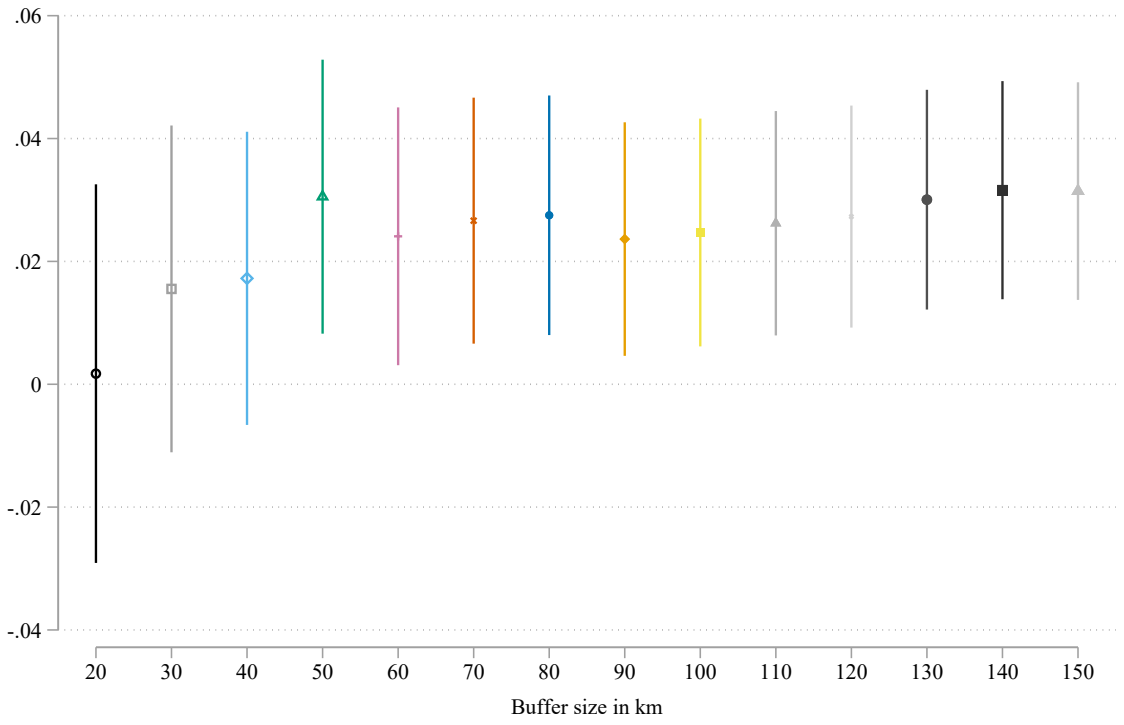


Figure 14: Marginal effect of terrorist attack on preference for democracy accounting for spatial confounding by a range of buffer zone radii. Specification including the full set of control variables added. Spikes represent 95% confidence intervals.

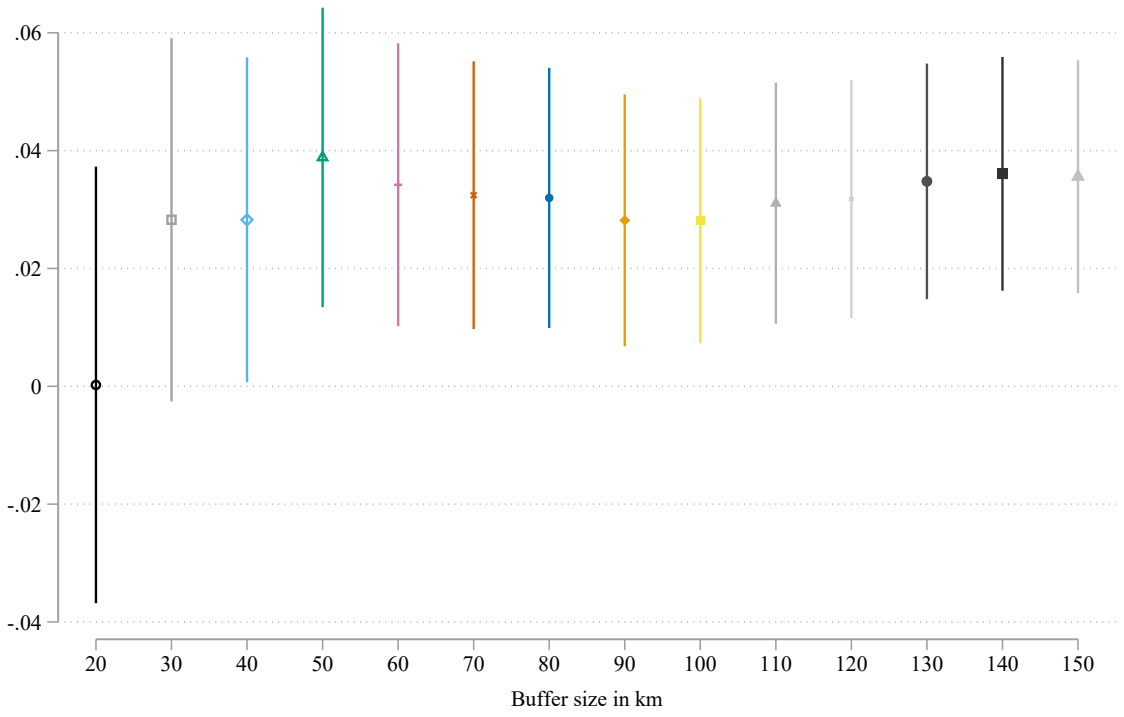


Figure 15: Marginal effect of terrorist attack on preference for democracy across time frames of increasing length. Specifications including no additional controls. Spikes represent 95% confidence intervals.

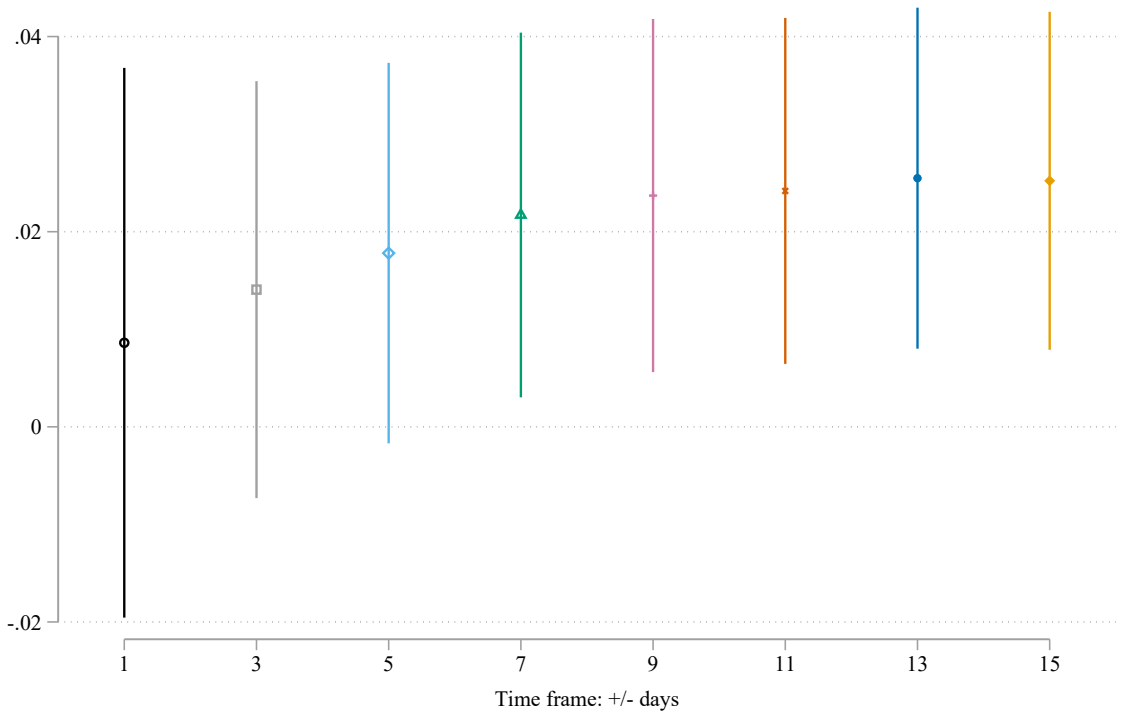


Figure 16: Marginal effect of terrorist attack on preference for democracy across time frames of increasing length. Specifications including the full set of controls. Spikes represent 95% confidence intervals.

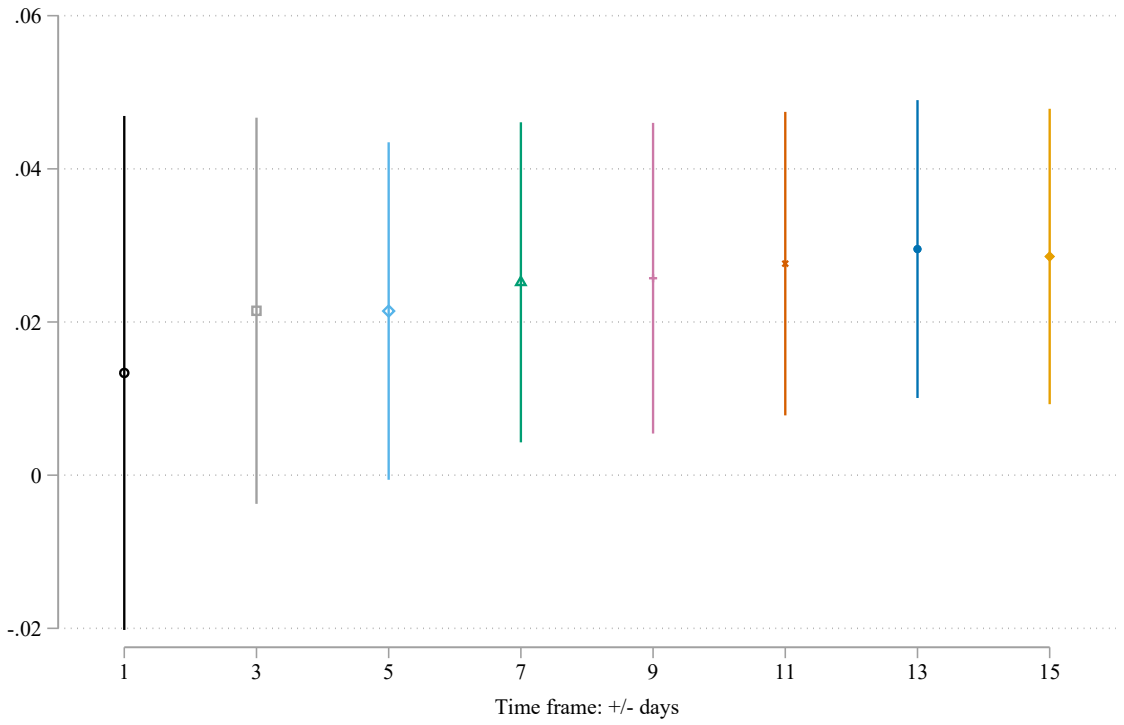


Figure 17: Marginal effect of terrorist attack on preference for democracy, while successively leaving out one case. Specifications include no additional controls. Spikes represent 95% confidence intervals.