

Exposure to Border Violence Erodes Military Trust: Mixed-Methods Evidence from Ghana*

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Abstract

Researchers have long linked weak state presence in border regions to higher conflict risk but often overlook how exposure to border insecurity in these peripheries shapes civilian trust in security institutions. We examine northern Ghana, where rising crime and social conflict due to the insurgency in Burkina Faso and a porous border have heightened local insecurity. Using a mixed-methods approach – combining coarsened exact matching of geolocated civilian perception data with ethnographic fieldwork – we find that proximity to the border significantly lowers trust in the military while increasing trust in traditional authorities. A battery of robustness tests confirms these effects are geographically and war-onset specific. Qualitative interviews reveal how civilians navigate security amid perceived military shortcomings. Our study highlights a key center-periphery divide in state legitimacy, offering critical insights for conflict research and strategies to preempt regional political instability.

Keywords: Military trust, social conflict, militias, mixed methods.

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Introduction

Peripheral regions often lie at the edges of state authority, areas more exposed to insecurity, even when formal control remains intact. In some peripheries, border insecurity – the risk of experiencing violence due to banditry and the spillover of violent actors from another state – is a persistent threat. Understanding institutional trust under conditions of localized border insecurity threat – how civilians perceive the effectiveness of the military in handling this risk, and whether they shift trust towards civil defense groups or traditional authorities – offers important insight into broader dynamics of state capacity and civil conflict (Nomikos and Stollenwerk 2025).

Building on this imperative, this study asks: How does spatial proximity to cross-border violence affect civilian trust in the security apparatus? Researchers have linked weaker peripheries to a greater risk of civil war (Buhaug and Gates, 2002, Fearon and Laitin, 2003; Fearon, 2004; Sarbahi, 2014). The focus on proxies such as mountainous terrain or distance from the capital may capture the logistical challenges of state control, but they overlook the local experience of insecurity by people living in these peripheries, especially border area regions. More recent studies argue that direct exposure to violence itself can affect trust in state institutions and delegitimize both government and non-state actors involved in the conflict (e.g., Hutchison and Johnson 2011; Myers, 2025; Schubiger, 2021). Border regions are especially relevant in this regard: when rebels control border areas, they can use violence more freely without immediate state retaliation (Blair, 2024). Porous borders then facilitate the cross-border diffusion of insecurity, as looters, militias, or insurgents move between territories (Bukari and Koren, 2025).

Yet, little attention has been given to the impact of such border regions' experience of insecurity on trust in the military and nonstate security actors, as opposed to the emphasis placed on its relationship to state capacity. The perception of military power relates to whether the people

in these at-risk peripheries believe the military can protect them or prevent nonstate groups from organizing. In border areas at a risk of experiencing the effects of conflict across the border, the combination of state security absence and local or transnational threat can intensify local vulnerability and accelerates decline in military trust (Biddle 2010; Malešič and Garb 2018). Correspondingly, if the locals do not believe the military can effectively protect them, they become more trusting of civil defense groups and vigilantes as a better alternative. In these contexts, communities often respond to persistent threats not by turning away from the state entirely, but – if they perceive the state’s security apparatus as ineffective – by reallocating trust and authority towards traditional leaders, community defense groups, and other semi-formal actors (Nomikos and Stollenwerk 2025). This shift occurs even when general trust in the political leadership remains intact (Hutchison and Johnson 2011; De Juan and Pierskalla 2016). It reflects a pragmatic response to local insecurity, one that prioritizes proximity, responsiveness, and perceived effectiveness over formal-institutional security affiliation.

Our study offers three key advantages that advance understanding of how peripheral communities change their perception in response to insecurity. First, it captures a specific mechanism driving shifts in trust from the military to civil defense authorities (e.g., Hutchison and Johnson 2011; Malešič and Garb 2018) – border insecurity. It is not merely that individuals come to view military capacities negatively or trust traditional authorities more; rather, they do so because they perceive the military forces of the state as less effective in responding to localized or transnational threats and the resulting insecurity. Second, our analysis demonstrates that not all areas and not all peripheries respond to conflict in the same way. Even within relatively stable states, legitimacy can vary significantly across space, particularly in peripheral regions shaped by conflict exposure and uneven military performance (Boulding, 1962; Hutchison and Johnson 2011;

Koren and Sarbahi, 2018). Third, we treat Ghana as a “typical” case (Seawright and Gerring, 2008) – a relatively stable state bordering insurgency-affected Burkina Faso – where porous borders and center-periphery divergence allow us to examine how externally originating security threats reshape local security perceptions in northern communities without direct civil war spillover. By distinguishing between Ghana’s political center and its northern borderlands, the analysis reveals how subnational variation – especially in peripheries of transnational conflict exposure – drives security-institutional perceptions. In doing so, the study offers a useful perspective on how legitimacy and trust evolve at the margins of even strong and stable states.

This is not a generic center-periphery account in which weak state capacity mechanically produces low institutional trust. Ghana is a relatively capable and politically stable state, and despite its proximity to the insurgency in Burkina Faso, it has not experienced large-scale civil war or territorial insurgent spillover. Yet, as we show, civilian trust in the military declines precisely in those northern communities most exposed to cross-border violence, but not in other broader communities in Ghana. This creates a paradox: even where the state retains formal control and national security outcomes appear successful, localized exposure to externally originating threats can erode confidence in the military’s ability to provide protection. Our argument therefore shifts attention from distance from the political center as a proxy for weakness to the lived experience of border insecurity, demonstrating how external conflict pressures reshape security perceptions within the peripheries of otherwise stable states.

Peripheral Conflict and Security Perceptions

We define “periphery” broadly as areas distant from the political or administrative center of the state. Accordingly, we consider border periphery as such region located near national borders.

These regions may – but not always – have weaker state presence and lower access to public goods, regardless of whether they are currently experiencing conflict. While not all peripheral areas are affected by violence, their relative remoteness makes them more vulnerable to security spillovers from nearby countries that experience conflict, while the lapses and slower state responses when instability does arise may directly feed into local residents’ sense of insecurity.

Existing research links weak state control in peripheral regions to increased conflict risk, largely emphasizing material constraints such as logistical inaccessibility or low state presence (Fearon and Laitin, 2003; Fearon, 2004; Sarbahi, 2014). However, in addition to material limitations, peripheral insecurity is shaped by how local populations perceive state power, particularly the military’s ability to offer protection and deter violence, as well as their experience of residing near porous borders for those peripheries at risk. In this case, “[m]ilitary effectiveness is defined as the ability to produce favorable military outcomes per se, including the outcomes of minor skirmishes at the tactical level of war and the outcomes of wars or even long-term politico-military competitions at the strategic or grand strategic levels of war” (Biddle, 2010, 1; see also Malešič and Garb 2018). If the military fails to defend civilians from threats they perceive as being border related, even if it is overall generally strong, the perception of efficacy is attenuated. If violence is localized, as often happens in countries not swept by active civil war but which experience social conflict, then negative perceptions will not be uniformly distributed, but rather more prevalent among those people directly affected by violence in these regions (Fearon, 2004; De Juan and Pierskalla 2016; Buhaug et al., 2021).

Social conflict (discussed in more detail below) may arise from various local factors, including ethnic tensions and resource competition, among others (Döring, 2020; Döring and Mustasilta, 2024; von Uexkull and Pettersson, 2018). This study focuses on a specific trigger that

is particularly salient, not only for its potential to intensify local conflict, but also for its broader relevance to conflict contagion dynamics globally (Salehyan, 2007) – border insecurity.

In these regards, we consider borders not simply as peripheral extensions of state authority, but as spaces that can be structurally difficult to govern, especially when characterized by high mobility, porous boundaries, and overlapping security jurisdictions. In African borderlands, even relatively capable states confront transnational threats that rely on movement rather than territorial control, exploiting cross-border trade routes and jurisdictional gaps to sustain persistent insecurity (Walther and Miles 2018; Walther et al. 2017; D’Amato 2018; Skillicorn et al. 2021). Research emphasizes that such dynamics allow armed groups, bandits, and criminal networks to evade retaliation and generate localized violence without producing full-scale insurgent spillover (Radil 2017; Walther and Miles 2018; Radil et al. 2022). As a result, border regions can pose legitimacy challenges not because the state is absent, but because the spatial complexity of borders constrains the effectiveness of formal security provision. This literature suggests that proximity to transnational insecurity can erode confidence in state security institutions even where national stability is preserved.

More specifically, border insecurity can reflect several potential dimensions. For example, Bukari and Koren (2025) find that contagion and low intensity conflict from cross-border spillovers – including robberies and (para)militarized violence involving self-defense groups – can arise due to four mechanisms. First, insurgents may use the neighboring state as a sanctuary (Salehyan, 2007; Skillicorn et al. 2021; Radil et al. 2022), raiding local communities for resources. Second, refugee flows caused by civil war can create competition over resources in host communities, especially where state capacity is weak (Braithwaite, Salehyan and Savun, 2019). Third, foreign fighters may cross into conflict zones and later return (Walther et al. 2017; Skillicorn

et al. 2021). Finally, as military focus is diverted towards preventing civil war through diffusion, local protection gaps emerge, enabling banditry and crime.

We build this logic to link spatial proximity to conflict with the direct (experiencing violence, participating in self-defense) or indirect (witnessing attacks, hearing about local incidents, observing the absence of timely military response) experience of localized border insecurity as driving changes in perceptions of military efficacy (De Juan and Pierskalla 2016). This dynamic is particularly pronounced in contexts of localized and lower-intensity social conflicts. Centrist wars, where rebels push for or operate in the national capital, directly impact residents of cities and other state strongholds. Even in secessionist civil wars, the pressures from potentially losing the territory reach the center, later accompanied by the costs of supporting military activity, in terms of both casualties, and financing and equipping a fighting force (Fearon 2004). We recognize that often even brutal civil wars unfold along localized fracture lines (Kalyvas, 2003). Yet, through the destruction they engender, such wars bear massive costs and far-reaching societal impacts that also shape the opinions of those residing far away from the affected territories (Blattman and Miguel, 2010; Gartner and Segura, 1998; Voeten and Brewer, 2006).

Unlike in full-scale civil wars, where national-level military mobilization often affects both central and peripheral regions, smaller-scale social conflict, such as inter-militia clashes, prevalent crime and looting, or cross-border raids resulting from cross-border spillovers, tends to remain geographically contained (Van Weezel, 2019; Döring, 2020). As a result, the pressures these forms of conflict generate are less likely to reach the political and administrative center. In contrast to wars that focus on rebels seeking to take the national center, with violence unfolding across the country, they tend to be localized in nature. The effects of lower intensity social and communal

conflicts, a form of conflict that is arguably among the most globally prevalent (Döring, 2020; Döring and Mustasilta, 2024; Von Uexkull and Pettersson, 2018), tend to spread far less. This creates a distinction between the perceptions of security and military efficacy by those in the periphery directly exposed to it and those in other parts of the country who are not (Kalyvas, 2003; Migdal, 1988). It is precisely this uneven exposure that sharpens the contrast in perceptions of state capacity: while the center may continue to view the military and other state institutions as competent and legitimate, peripheral communities directly affected by insecurity are more likely to shift their trust towards traditional or semi-formal actors. In such cases, the shift in trust is not driven by ideological rejection of the state, but by practical assessments of who can actually provide security under conditions of limited reach and responsiveness (Hutchison and Johnson 2011; Nomikos and Stollenwerk 2025).

Another issue that can shape civilian perceptions relates to the length of the period of exposure to violence (Rubin and Ihle, 2017). Military visibility alone is insufficient to generate trust, and in contexts where deployments are perceived as ineffective or intrusive, increased presence may even erode confidence in the armed forces, underscoring the central role of perceived performance in shaping institutional trust. Moreover, some militaries might be prone to perpetrating violence, resulting in even lower levels of trust. Accordingly, military capacity and ability to resolve the situation are key. If the situation resolves quickly, intensity often remains low, meaning civilian perceptions are less likely to shift (Siberdt, 2024). Longer periods of border insecurity, however, make it more probable that perceptions would shift, for at least two reasons. First, it is more likely that over the period, more people would be affected (e.g., by being attacked, robbed) or witness its effects on others (e.g., friends being killed) (Bukari and Koren, 2025). Second, the longer a conflict lasts, the more it suggests to exposed civilians that the military is

incapable of resolving it or providing protection, seeing a military's efficacy is measured, at least in some regards, in its ability to resolve conflicts quickly (Biddle, 2010). This may be even more likely in cases of lower-intensity conflict, which presumably present a more manageable challenge for militaries, at least when it comes to protecting those directly affected. Affected individuals might assume that the military is not interested in protecting them, creating a sense of resentment and a perception of "selective" security provision (Migdal, 1988; Koren and Sarbahi, 2018).

Correspondingly, if trust in the military and its effectiveness declines, people may shift their trust to informal or semi-formal institutions that provide alternative protection. In many parts of the world, and especially in sub-Saharan Africa, such informal and semi-formal institutions are represented by traditional authorities and community defense groups (van Weezel, 2019; Von Uexkull and Pettersson, 2018; Döring, 2020; Döring and Mustasilta, 2024; Kaderi and Koren, 2025). For example, in a survey conducted in Nigeria, "[o]nly 41% of respondents reported that when violence occurred in their communities, police or other official security services even arrived before the violence was over. As a result, residents have increasingly placed their hopes for protection in local community security groups, known locally as 'vigilantes.' 84% of respondents said that these groups intervened in violent conflicts before the violence was over (twice the rate for police)" (Koren et al., 2022).

While we believe that exposure to violence could raise trust in community-level actors, is important to emphasize that trust in the military and trust in traditional authorities are nevertheless not functionally equivalent institutions. The military represents the state's formal coercive capacity and is primarily tasked with territorial defense and border protection, whereas traditional authorities operate as locally embedded actors who facilitate mediation, information sharing, and community-level security coordination. We therefore do not conceptualize shifts in trust as a zero-

sum substitution between state and non-state authority. Instead, we argue that border insecurity prompts a selective reallocation of trust within hybrid governance systems, in which declining confidence in the military's ability to manage localized or transnational threats coincides with increased reliance on traditional leaders for proximate, everyday security functions. This pattern reflects pragmatic adaptation rather than state rejection: trust in chiefs and community authorities complements, rather than replaces, formal state security, even when confidence in military effectiveness erodes.

Correspondingly, this shift also does not necessarily mean a rejection of the state at the political level, but a pragmatic response to localized insecurity: when the military is seen as distant, disinterested, or unresponsive, communities may change their views about actors they find less or more responsive or effective. The focus on formal security institutions and informal authorities hence does not suggest that shifting political perspectives in peripheral areas will necessarily extend to views of national political leaders or electoral preferences. In localized, protracted border insecurity contexts, perceptions of abandonment and selective protection are often tightly bounded to immediate experiences of violence and state (in)action. As such, they may foster deep distrust in the military or reliance on local actors without significantly altering how individuals view distant political elites, who may be viewed as more symbolic, or as detached from everyday security dynamics (Brooks, 2019). In these cases, we posit that changing views on the military does not automatically translate into broader political disengagement or opposition. Instead, it may entrench a fragmented political consciousness where trust in state institutions is localized and contingent, but broader evaluations of national leadership remain relatively stable, or are simply viewed as irrelevant to resolving local insecurity.

In contexts where the state remains formally intact but exhibits diverging and long-lasting geographical crime and social conflict trends, exposure to the threat recalibrates trust in formal versus informal security institutions. As we mentioned, these effects are not expected to appear uniformly across the center and the periphery, or across all peripheries, but only where cross-border spillovers generate persistent local insecurity without clear or timely state response. Thus, we expect to observe lower trust in the military and increased trust in traditional authorities specifically affected border zones, reflecting localized shifts in perceptions on security institutions in response to perceived state inadequacy. This suggests the following hypotheses:

- **H1:** *Civilians in protracted conflict exposed border areas will view the military more negatively than those in other parts of the state.*
- **H2:** *Civilians in protracted conflict exposed border areas will view traditional authorities more positively than those in other parts of the state.*

Data and Methods

We identified northern Ghana as a “typical” case (Seawright and Gerring, 2008) due to its susceptibility to cross-border insurgency driven by ethnic, political, and economic factors. Northern Ghana shares a boundary with Burkina Faso, where an insurgency began in 2015, creating an opportunity to examine its effects on social conflict in a region historically characterized by high mobility (Bukari, Sow, and Scheffran, 2018). The area’s porous border and longstanding transnational ties have hence facilitated both commerce and insecurity, allowing for both direct spillover and indirect transmission of conflict dynamics. While Ghana has been relatively successful in guarding its border against the direct spread of the insurgency in Burkina Faso, it has experienced a sharp rise in crime – including looting and banditry – as well as social

conflict, such as clashes between identity-based militias and between militias and insurgents seeking refuge or smuggling goods across the border (Bukari and Koren, 2025). Moreover, in recent years, localized disputes, including from cross-border raids, have led to the emergence of multiple self-defense initiatives. Finally, one of the author's sustained fieldwork in this region provides in-depth contextual understanding.

Empirically, the difference in attitudes towards security, political, and traditional authorities across Ghana and Burkina Faso is tested using a mixed methods approach, which leverages coarsened exact score matching (CEM) (Iacus, King and Porro, 2012) to identify average-treatment-in-treated (ATT), combined with fieldwork in Ghana's north, which provides contextual knowledge for comparative research. To gauge perceptions of security capacities and trust, we rely on information from the geolocated Afrobarometer V7 (the one conducted the year after the onset of the conflict in Burkina Faso) (Afrobarometer, 2021). Afrobarometer version 7 surveyed N = 2,400 people in Ghana in September 2017, after the Burkina Faso insurgency has begun (a placebo test that uses pre-insurgency data from an earlier version of the dataset to ensure the results are due to the onset are reported in the Supplemental Appendix and discussed below).

As discussed above, our theory posits that spatial proximity to conflict raises the risk of exposure due to the direct or indirect experience of localized insecurity, which drives changes in perceptions of military efficacy. Afrobarometer data allows us to assess this by capturing respondents' views on military protection and efficiency as well as their trust in other actors. Because security concerns were shown to increase closer to the border with Burkina Faso (Bukari and Koren, 2025), we define the treatment based on whether the respondent was living within Ghana's northern regions, which are the closest to the border. To identify geospatial proximity to

the border with Burkina Faso, we received approval to use the geolocated version of the Afrobarometer database, which records coordinates of the survey's location.

The dependent variables (DVs) are designed to capture civilians' perceptions of the military, and compare them to their perceptions of the police, political leaders, and traditional authorities. The purpose of the last DV is to proxy civilians' attitudes also toward civil defense forces and identity militias, which serve a key role as providers of security in these border regions as alternative to the military. Such groups often arise from community structures and are formed under the authority of traditional leaders or tribal councils. Accordingly, our DVs measure trust in the military (question Q43h); perceptions of military efficacy (Q61a); and trust in the police (Q43g), president (Q43a), ruling party (Q43e), and traditional leaders (Q43j).

Building on previous studies of crime and social conflict in Ghana's border regions (Bukari and Koren, 2025), we define our treatment as residing within 200 km of the Burkina Faso border. We acknowledge that prior work often defines African borderlands using narrow spatial buffers of approximately 100 km (OECD 2022). While this approach is conceptually useful, in the Ghanaian context cross-border trade, migration routes, and transport corridors extend the reach of insecurity well beyond this immediate belt, and AfroGrid's survey data include relatively few respondents within 100 km of the Burkina Faso border. We therefore adapt this convention by employing a wider exposure threshold that better captures plausible transnational effects while maintaining sufficient statistical power, rather than disregarding the borderlands literature. As the country's length from the shore is about 483 km inland but most of its residents live in the south and closer to the ocean, this approach strikes a good balance – it covers the country's three northern provinces, those most likely to experience violence resulting (directly or indirectly) from the Burkina Faso war, while ensuring that we cover a sufficiently high number of surveyed individuals

within the boundary of our treatment, considering these regions are relatively sparsely populated to ensure a sufficiently sizeable sample for inference. Practically, this threshold balances conceptual plausibility with statistical power, capturing areas plausibly affected by cross-border insecurity while avoiding reliance on very small subsamples. To help in identifying the causal boundaries to any effects we observe, we employ larger (250km and 350 km) distance thresholds.

The average treatment effects on the treated (ATT) of border insecurity were estimated using a three-step statistical balancing approach (Koren and Weidmann, 2025). In the first step, we matched treated units – respondents residing within 200 km (or alternative thresholds for testing sensitivity) of the Burkina Faso border – with untreated individuals from the same country who were comparable across socioeconomic and religious characteristics, using coarsened exact matching (CEM). We opted for CEM over nearest-neighbor propensity score matching because CEM achieves covariate balance by design, eliminating the need for post-matching balance checks and reducing model dependence (Iacus, King and Porro, 2012; Koren and Weidmann, 2025). Unlike other methods (e.g., propensity score matching, or PSM), CEM does not force a functional form assumption on the data, relying instead on a more flexible nonparametric approach, which offers an advantage in cross-sectional (not panel) data such as the one used here.

To create a statistically balanced sample for estimating the ATT, we used socioeconomic indicators from Afrobarometer as matching covariates. These included: (1) whether the respondent resided in a rural or an urban area (dichotomized using question URBRUR); (2) whether there was electric grid in the vicinity (question EA_SVC_A); (3) whether there were water pipes in the area (question EA_SVC_B); and (4) fixed effects by religious affiliation, which serves as a major identity group distinction in the country (question Q98). These matching covariates were also used as controls in the ATT linear model estimation. As shown in the balance plots (Figure A1,

Supplemental Appendix), our matched sample falls well within acceptable bounds across all indicators (absolute mean differences < 0.1), indicating effective performance of the matching procedure. Moreover, CEM offers computational efficiency and transparency, minimizing arbitrary decisions and proving more robust than alternative methods such as PSM or exact matching.

In the second step, we estimated OLS regression of the binary treatment indicator *Proximity to BF border* on each dependent variable using the matched sample. Because CEM ensures covariate balance, it removes the need to include interaction terms between the treatment and covariates to adjust for imbalance (for robustness, we report results with such interactions included in the Supplemental Appendix). In the third and final step, we estimated and visualized the ATT among the treated sample, specifically, the estimated change in trust levels (on a 0 \leftrightarrow 3 scale) or perceived military effectiveness (on a 0 \leftrightarrow 5 scale) for individuals living near the Burkina Faso border. The use of matching-based techniques allows us to derive estimates that support a causal interpretation within the constraints of observational data. Summary statistics for all the variables used in the main, sensitivity, and placebo analysis are reported in Table A1, Supplemental Appendix.

To situate these findings within the local sociopolitical context, the qualitative portion draws on fieldwork conducted in northern Ghana in communities near the border, which included interviews with 10 community leaders and individuals from northern Ghana in the towns of Paga, Sapelliga, Bawku, and Hamile (see Figure A11, Supplemental Appendix for a map of these locations). These interviews were carried out by one of the coauthors, a Ghanaian citizen, between June and July 2025. Each interviewee was asked a series of questions regarding the state of security, as well as the roles of the military, police, and civil defense forces. Ethical procedures –

including informed consent, confidentiality, and voluntary participation – were rigorously observed throughout the study (details of our ethical protocols are provided in the Supplemental Appendix). Below, we summarize respondents’ attitudes toward the security environment, the military, and civil defense forces, aiming to unpack the mechanisms and test our hypotheses.

Quantitative Analysis Results

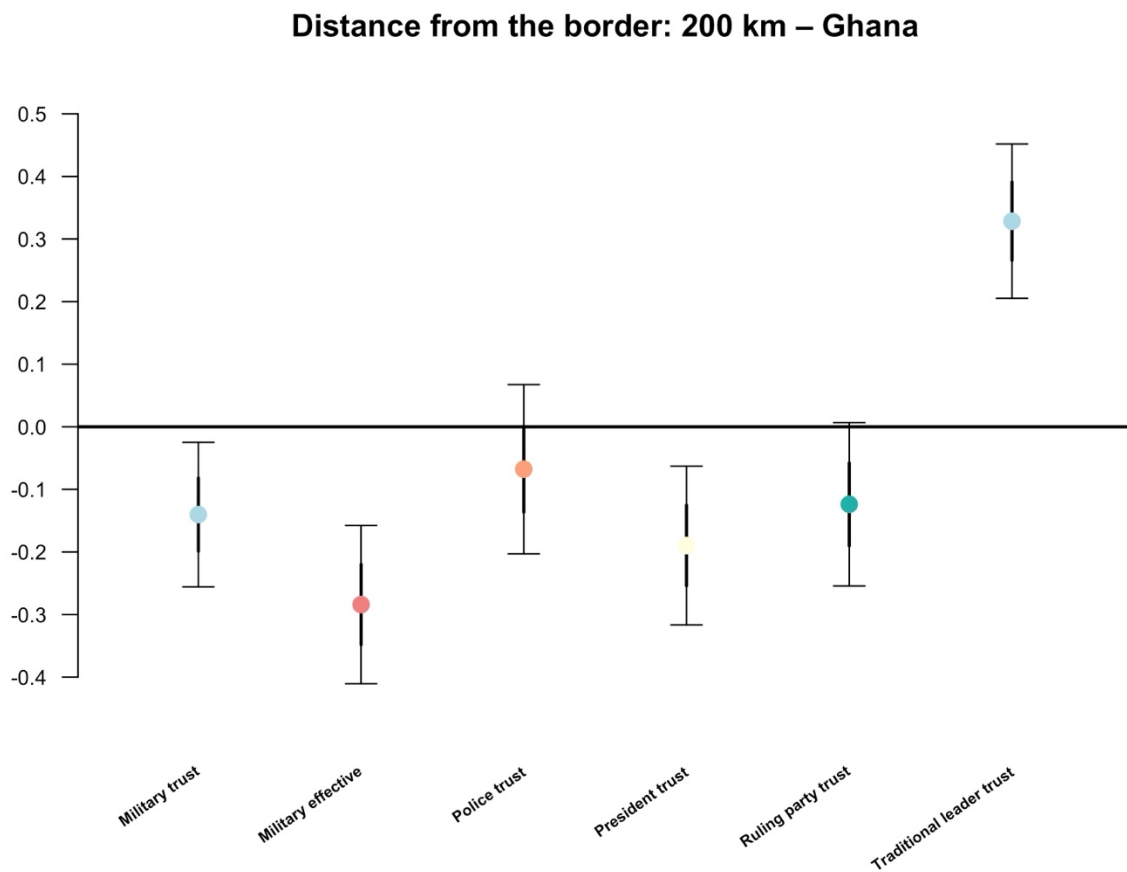


Figure 1. Average treatment effect in treated Afrobarometer V7 respondents (ATT). Treatment is measured based on proximity to the Burkina Faso within a radius of 200 km from the respondent’s location. Estimates were obtained on matched samples of between 1,633 and 1,893 respondents with 283-331 treated individual. Bold bars represent mean ± 1 SE and whiskers represent 95%

confidence intervals. P-values (two-tailed tests) are: 0.017 (military trust), $9.63e-6$ (military effective), 0.323 (police trust), 0.003 (presidential trust), 0.061 (ruling party trust), and $1.54e-7$ (traditional authority trust).

Figure 1 reports estimates of ATT to assess how Burkina Faso (BF) border exposure affects political trust and shows that border exposure leads to significant mistrust in the military and its capacities (confirming hypothesis H1), as well as increased trust in traditional authorities (confirming hypothesis H2). Trust in the military is -0.140 (on a $0 \leftrightarrow 3$ scale) and perceptions of military efficacy is -0.284 (on a $0 \leftrightarrow 5$ scale) lower in BF border exposed areas. Considering a mean of 2.23 for military trust and 4.37 in military efficacy, these declines correspond to decreases of $\sim 6.3\%$ and $\sim 6.5\%$, respectively. Additionally, trust in traditional leaders (on a $0 \leftrightarrow 3$ scale) increases by 0.328 with BF border exposure, which – considering a mean of 1.61 – corresponds to a $\sim 20\%$ increase in trust in this border region. Finally, we observe that trust in the executive changes -0.190 (corresponding to a 9% decrease given a mean of 2.096), suggesting exposure to border violence may impact political perceptions as well. We do not find statistically significant effects of BF border exposure on other trust measures: border residents' views of the police and the ruling party are not statistically different from those of people in other parts of Ghana. This is in line with our expectations that the effects of exposure to cross-border risks reflect mostly a concern about the military and its local alternatives, although it does suggest that such dissatisfaction can also translate into broad political disillusionment.

Overall, the findings suggest that proximity to the Burkina Faso border – which leads to greater rates of crime and social conflict due to insurgency risks within Burkina Faso (Bukari and Koren, 2025) – undermines trust in the military's capacity to provide protection, while bolstering

support for traditional authorities, potentially reflecting a shift towards alternative security structures that are more visible and trusted in Ghana's northern borderlands.

To verify that these results are indeed likely driven by social conflict and crime spillovers resulting from the insurgency in Burkina Faso, we report several sensitivity analyses to help reduce the possibility of confounding explanations. First, we assess the geospatial sensitivity to alternative definitions of exposure by re-estimating all models using thresholds of 250 km and 350 km. These capture increasingly diffuse forms of cross-border exposure while retaining sufficient statistical power. As Figure A2, Supplemental Appendix shows, the results remain practically unchanged at longer (250km) distances to the border (below 200km the number of treated observations starts falling to risk inference), but dissipates at the 350km distance from the BF border threshold, suggesting a causal boundary. As an additional sensitivity check, we examine spatial patterns in institutional evaluations using descriptive models, where instead of treatment we implement an ordinal indicator of four distance-to-border categories (our three treatment categories – <200 km, 200–250 km, 250–350 km – and a fourth >350 km category), and which do not rely on the matching design. Figure A3 presents coefficient estimates for this variable from these models, while Figure A4 reports change in predicted values across distance-based exposure categories. The purpose of these figures is to assess whether the main findings align with broader spatial ordering rather than to provide an alternative identification strategy. The category-based estimates show that perceived military effectiveness is lowest closest to the border and higher at greater distances, while trust in traditional authorities shows the opposite relationships, consistent with the matched results. While military trust and presidential trust do not display a clear gradient across categories in these auxiliary specifications, since these models are estimated without matching and some categories contain relatively few observations, the absence of a pronounced pattern should not be

interpreted as evidence of no effect. Rather, the categorical diagnostics underscore that border proximity does not produce a uniform center-periphery trust gradient and support our interpretation that the matched results capture institution-specific responses to border insecurity – which are sensitive to underlying shared characteristics captured by our CEM approach – rather than generic spatial variation.

Our next two sensitivity analyses account for specification concerns. First, we implement a one-to-one comparison using the propensity score matching (PSM) algorithms, which – as mentioned above – enforces more assumptions on the structure of the data and is hence less recommended than CEM, at least in non-panel data settings such as ours (Iacus, King and Porro, 2012) (Figure A5, Supplemental Appendix). Next, to ensure that – even though our matching is balanced across all covariates (values $<.1$) – no underlying imbalance is driving the results by repeated the analysis and including treatment \times covariate interactions as recommended in past research concerning this issue (Koren and Bukari, 2024) (Figure A6, Supplemental Appendix). The results remain substantively unchanged across these two sensitivity analyses (although the effect of military trust is weaker in the 1-to-1 test, but this could be explained by the much smaller number of observations this approach produces, which underscores the advantages of using CEM).

Our next set of sensitivity analyses is a set of placebo tests to ensure the results are unlikely to be random, but rather a function of location and timing. First, we replicate Figure 1 with a set of models where the treatment is assigned randomly, and where – unless the results are driven by the underlying CEM process – the effect should be zero. As Figure A7 shows, this is indeed the case. The next two runs then replicate Figure 1, but this time looking at the Burkina Faso side of the border. Unlike in Ghana, where the conflict remains localized and close to the border, in Burkina Faso it is widespread, so much so that, “Today, Burkina Faso is rivaling Mali as the

epicenter of the crisis in the Sahel, with jihadist insurgent groups claiming allegiance, at least rhetorically, to al-Qaeda and the Islamic State, competing for influence and control over the territory” (Haavik, Bøås and Iocchi, 2022, 318). As a result of insurgency intensifying in many parts of the country, we do not expect to see the same relative difference between the center and the periphery with respect perceptions on military trust and effectiveness (Nomikos and Stollenwerk, 2025). To this end, Figure A8 replicates Figure 1 and the CEM matching procedure, this time focusing on Burkina Faso respondents, although note that using the same treat yields much higher ratio of treated to untreated individuals than Ghana, which might impact the results (200km from the border=1, 0 otherwise; 840 cases =1 and 360 cases=0). Accordingly, in this placebo analysis, the exposure threshold is chosen for diagnostic rather than identificational purposes. As a 200 km buffer classifies most respondents as exposed and yields a highly unbalanced treated–control split, we instead use a 150 km threshold, which better approximates a border-adjacent zone and produces a more balanced sample that is also more similar to the Ghana sample (476 cases=1, 617 cases=0), allowing the falsification test to be more informative. As the figure illustrate, as expected, because Burkina Faso lacks the conditions we highlighted in the context of Ghana, we find no noticeable impact of proximity to the border on attitudes toward the military, police, government, in Burkina Faso, while traditional authorities are viewed more negatively rather than favorably.

The last two placebo tests evaluate the sensitivity of our findings to spatial and temporal specifications. First, we hypothesized that the reason that we observe a difference in military and traditional authority perceptions in the border insecure regions by Burkina Faso is due to exposure to crime and violence resulting from insurgency spillovers. This means that residents residing in border regions near countries that do not experience conflict – and hence where insecurity due to

spillovers and other war-related issues in the neighboring state – should not exhibit similar change in perception. Accordingly, we replicate Figure 1, operationalizing our treatment based on the distance to the border with Côte d’Ivoire – which did not experience an insurgency over the same period – within the 200km range. As Figure A9 shows, the results, if anything, are reversed: residents of the periphery on the Côte d’Ivoire border show greater support for the military and trust traditional authorities less than the rest of the country.

Our final placebo test ensures that the effects captured in Figure 1 occur after the insurgency in Burkina Faso began. To test this, we rely on AfroBarometer Version 6, which conducted the same number of interviews in Ghana as Version 7 but several years earlier, between April and June 2015, whereas the insurgency in Burkina Faso did not begin until August 2015. While geolocation is not as accurate as in the later versions (V7 and on), V6 still includes information on locations where the interviews were conducted. AfroBarometer V6 also includes the same indicators used for matching as well as all dependent variables excluding perceptions of military effectiveness. This allows us to approximate the same treatment as in Figure 1 (200 km from the BF border =1, =0 otherwise) and test whether the sentiment regarding the military, police, government, and traditional authorities in the regions bordering Burkina Faso was different before the insurgency. As Figure A10 shows, prior to the beginning of the insurgency in Burkina Faso, in the border periphery viewed all authorities – including the military – more positively than individuals surveyed in other parts of the countries. In line with our claims, this suggests that the negative perceptions of the military developed only after the insurgency in Burkina Faso began, causing increased levels of social conflict and banditry in Ghana’s border areas. We also find that the favorability of traditional authorities is still higher than the Ghana baseline prior to the rebellion, suggesting that this effect is more path dependent and less driven by border spillovers.

Evidence from Fieldwork

Having established a decline in both trust and perceived capacity of the military in northern Ghana compared to other regions – likely driven by the onset of the insurgency in Burkina Faso – and shown that individuals in this area place greater trust in traditional authorities, we next turn to examine these dynamics more closely within their regional context. The security environment in the border communities has changed notably in the years following the onset of the Burkina Faso insurgency. Residents describe a marked increase in both the variety and severity of crimes. One interviewee remarked, “The state of security is very poor...The only security we have within Zebilla is the Ghana Police and the Immigration Service, which don’t even have adequate staff. We feel the security is inadequate” (an interview with a youth leader, Sapelliga). He also noted that theft and robbery had been issues after the conflict began, although they improved since 2020: “It was very serious. There were a lot of robberies along the Sapelliga-Kobore route, almost every night.”

Another Sapelliga resident described the psychological toll of nearby violence: “The gunshots that were very close... And then, most of the places where the bombing was occurring at, our people were also living around those areas. So, we were scared. There was really a fearful living there” (an interview with a Kogelweogo leader, Sapelliga). He added that crime often had an ethnic dimension: “90% of the crimes committed are always Fulani. If you see any criminal too who is not a Fulani, he is somehow a friend to a Fulani...Mostly stealing...Motorbikes, cattle, goats, sheep, anything.” These were described not as local criminals but outsiders exploiting the security vacuum: “Where my house is, our immediate neighbors, from left, right, Centre, back, are Fulani...they are cool.” He also raised concerns about porous borders: “You know, our border is

not searched. They can pass anywhere.” Yet, he did not see this as evidence of an organized insurgency targeting Ghana: “They [the insurgents] have their aim, fighting it there...fighting Ghana is not part of it.” This attribution reflects the perceptions of the interviewee, which are consistent with broader patterns of stigmatization of Fulani communities observed across the region, particularly in contexts of insecurity and conflict. They illustrate and should be understood as how civilians interpret and narrate threat rather than as evidence of collective responsibility.

Perceptions of the military were mixed. While interviewees generally favored the military over other state forces, this trust was tempered by concerns over its actual ability to provide protection. Respondents valued the military’s professionalism and capacity to counter external threats. As one resident put it, “We trust the military more than the police and immigration because they are less corrupt and have the capacity to counter any armed group” (an interview with a Paga resident). Another echoed, “The military is better at dealing with terrorism than the other security agencies” (an interview with a community leader, Bawku-Missiga).

However, many also voiced frustration over the military’s absence or inadequacy on the ground. One said, “When it comes to violent extremism and terrorism, I have not seen the military along the border area... maybe they have their own way of surveillance that I am not aware of” (an interview with NCCE Director, Bawku). Another detailed the challenge posed by insurgents: “They [the military] can deal with it, but it's not going to be an easy task because of how the jihadists normally come...in 200, 300, all of them with weapons, motorbikes” (an interview with a Kogelweogo leader, Sapelliga). He concluded that outnumbering such forces would be difficult. When asked about military preparedness, he replied, “I do not see it...Even if they are coming with two or three cars, and how the jihadists normally come, it will be difficult.” Still, he affirmed,

“yes, we trust them.” The takeaway from this set of views is that while trust in the military is not very low, belief in its practical capacity to manage local threats is weak.

Concerns about selective security provision also surfaced. One interviewee stated, “some residents accuse them of being biased... some say they are not protecting well, others say they are protecting one side and leaving the other” (an interview with NCCE Director, Bawku). He added, “When you try to do your work objectively, there will always be accusations and counter-accusations,” but acknowledged, “without them, it would have been a disaster.” This suggests that narratives of partiality exist, even if they are not universally accepted.

In light of doubts about state protection, communities have increasingly turned to informal security mechanisms. One interviewee explained, “The security agencies we have in here are the police, immigration, formally the military and then our own self-defense force called the *Kogelweogo*” (an interview with a youth leader, Sapelliga). These community-based self-defense groups have become first responders in the face of insecurity. “The *Kogelweogo* are the most efficient and trusted more than all the state security forces” (an interview with community resident, Sapelliga), said one respondent. Another emphasized their importance: “They would get people, especially along the border towns, to serve as watchdogs... So, I believe these watchdog groups should still be operating” (an interview with NCCE Director, Bawku).

A *Kogelweogo* leader provided further detail: “With the police, the people didn't trust them...our community boys do insult us and will say we are now conniving with the police to take money and leave criminals. So, the best thing we normally do is to send the person to the chief's palace” (an interview with a *Kogelweogo* leader, Sapelliga). He linked the group's origins directly to the insurgency in Burkina Faso, describing their approach to border vigilance:

What we did was that there was already a program called Kuilwegu [sic], which is the community watchdog. We used them... We told [residents] anybody that receives a stranger from Burkina Faso without our notice, that person will be picked by the police...Even if the person is not a harmful person, you cannot just accept the person without letting the security agency know...The immigration will come and screen them...Some of them were found to be criminals, and they send them back (an interview with a Kogelweogo leader, Sapelliga).

He added that his group had better local intelligence: “We could even detect those more than the immigration...We are about 45. They were 4 or 5.” In sum, while not engaged directly in combat, the Kogelweogo have helped contain rising social conflict and criminality in the security vacuum.

Finally, many respondents voiced strong criticism of the police. The Kogelweogo leader explained, “Any time we get a criminal, we have to end up in the police station” but the person would then be released. “People are no more reporting cases to the police...even the petty theft, domestic cases, they report to us instead.” He added, “For the past two years, I have not heard somebody reporting a case to the police there.”

In line with our results, the erosion of trust in the military appears more localized, tied to specific regional experiences of insecurity. In contrast, distrust in the police is widespread. One respondent noted, “They have the ability, but they don't want to. Because if the police actually want to stop crime – not even in Sapelliga alone, *but the whole of Ghana* – they can do it within a day. It's something we find difficult to understand” (an interview with a youth leader, Sapelliga , emphasis added).

This view is supported by broader data: trust in the police nationwide (Afrobarometer V7 Question 43g) averages 1.23, compared to 2.23 (Question 43h) for the military. This underscores a crucial distinction: while weak security institutions like the police suffer from nationwide distrust, the experience of border insecurity can erode confidence even in more capable and respected institutions like the military, posing serious, localized risks to state authority.

Overall, the interviews clarify the mechanism linking border insecurity to declining military trust. While respondents generally regard the military as more professional and less corrupt than other state forces, they emphasize its limited presence, reactive posture, and perceived inability to prevent localized violence and cross-border crime. These perceived constraints weaken confidence in the military's practical effectiveness even where baseline trust remains, particularly in comparison to expectations of protection. In response, communities increasingly rely on traditional leaders and local defense groups for mediation, intelligence, and first-response security, reflecting a pragmatic reallocation of trust under conditions of persistent border insecurity.

Conclusion

This study sheds important light on how the experience of insecurity in border zones reshapes civilian perceptions of state security institutions and alternative governance actors. Ghana's experience highlights a paradox of security success: the absence of large-scale insurgent spillover does not translate into uniformly high local trust in the military. Border communities evaluate security provision through everyday localized experiences of protection and vulnerability rather than national-level outcomes, meaning that effective containment at the state level can coexist with declining confidence in security institutions at the periphery.

Our findings advance the literature on state capacity, conflict exposure, and political trust by highlighting the nuanced ways in which protracted and localized insecurity undermines trust in the military, while simultaneously elevating support for traditional authorities. While prior research focuses on the absence of state control or presence as a driver of conflict and instability (Fearon, 2004; Sarbahi, 2014), our findings first suggest that the perceived inability or unwillingness of the military to protect civilians in insecure border areas can create durable political consequences, as civilians interpret prolonged exposure to violence as a choice by the state or as an illustration of its incapacity to prevent it. Considering that researchers have long shown that decline in trust in peripheries can lead to mobilization and even onset of rebellion by eroding legitimacy and altering patterns of political allegiance. (e.g., Keen, 2012; Cederman, Gleditsch and Buhaug, 2013), this perception can have sizeable adverse implications.

Second, our findings demonstrate the importance of geographic and temporal specificity in understanding conflict and low intensity violence's impact on military and political trust. By leveraging border proximity to Burkina Faso to approximate conflict exposure and its established effects on localized low intensity conflict and communal violence, we add more evidence to show that different levels of violence exposure matter within the state. This adds a layer of granularity often missed in national-level studies on perceptions across countries, underscoring the need for more fine-grained, localized analyses of trust and state legitimacy across different zones within the same country, in line with research on natural resources and state capacity, among others (e.g., Buhaug and Gates, 2002; Koren and Sarbahi, 2018).

Indeed, our findings suggest a growing divergence between the political and security experiences of the center and the periphery in many contexts may deepen a sense of distance or disconnection from central security institutions. This uneven landscape of perceptions of insecurity

risks reinforcing underlying fracture lines in state-society relations, as border zone communities might increasingly question the relevance or effectiveness of formal authorities. Over time, such dynamics could create a self-reinforcing cycle of skepticism of state authority and capacity, undermining national cohesion and potentially opening door for protracted conflict, especially if civil defense groups of vigilantes come to play an expanded role at the expense of formal security forces.

Third, the observed rise in trust toward traditional authorities and local defense groups points to a shift in institutional preferences in contexts of state inadequacy. This dynamic raises questions about the evolving nature of governance in fragile and conflict-affected regions, even in states that have otherwise relatively robust political and military structures. Future research could investigate, for instance, how this shift in preferences influences long-term state-society relations, whether it reinforces parallel governance structures, and under what conditions it may lead to cooperation or competition between formal and informal institutions.

From a policy standpoint, the study underscores the need for targeted strategies to rebuild trust in the formal security apparatus in border areas susceptible to experiencing violence. Strengthening military responsiveness and visibility in these regions is essential to counteract growing skepticism about state protection. At the same time, rather than legally banning them – as is the case in Ghana, *de jure* if not *de facto* – recognizing the legitimacy and role of traditional authorities opens the door to hybrid security arrangements that align state objectives with local structures (Ahram, 2011).

Finally, it is important to bear in mind some relevant scope conditions. Northern Ghana has offered a valuable case for how the experience of border insecurity affects civilian trust in state and non-state authority actors. Its location adjacent to Burkina Faso's escalating conflict and its

relatively weak local security infrastructure make it broadly comparable to other borderland regions facing violence due to similar spillover pressures. Accordingly, our findings are most likely to generalize to border regions that experience sustained exposure to external insecurity without direct civil war spillover, particularly in contexts where formal state authority coexists with locally embedded, non-state governance institutions. More broadly, the results speak to non-war exposure settings in which security threats originate externally and are managed through hybrid governance arrangements rather than through large-scale military confrontation.

Two caveats, however, are worth noting. First, while northern Ghana shares characteristics with many peripheral border zones, its specific sociopolitical context – including the country’s overall political stability and historical center-periphery relations – may shape the nature or intensity of spillover effects in distinct ways. In particular, Ghana’s relatively high institutional capacity and history of peaceful political transitions may dampen the escalation of insecurity compared to weaker or more fragmented states. Second, our post-treatment window, from 2015 to 2020, captures immediate and intermediate impacts but may miss slower-moving institutional or behavioral shifts. For example, changes in trust in the military or shifts in local governance arrangements may take longer to materialize than our data allow us to observe. These limitations suggest the need for caution in generalizing beyond similar contexts or projecting long-term effects beyond the study period.

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Declaration of generative AI and AI-assisted technologies in the manuscript preparation process

During the preparation of this work the author(s) used Chat GPT in order to ensure grammar and spelling were done accurately. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the published article.