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Do civil wars shape citizens' attitudes towards taxation?

Micro-level evidence from Africa

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Abstract: Can the exposure to civil war make people more motivated to pay taxes and (re)build the state? Our project examines this question in the context of Africa, a region where civil wars have frequently undermined state capacity. We move from the popular Tillian view of war-making as state-making to study how civil wars shape states' capacity to collect and mobilize revenues (i.e. tax compliance and tax morale) in Sub-Saharan Africa. We combine subnational data on civil wars in Africa with Afrobarometer surveys to assess whether civil wars make citizens (1) more compliant with taxation and (2) more likely to believe paying taxes is important. We find that citizens exposed to intense civil war report higher levels of tax morale and tax compliance compared to those exposed to more moderate warfare. We also find that this effect is more pronounced in areas that had higher levels of institutional trust, suggesting that the perceived legitimacy of the government is a potential scope condition. We do not find that perceived ethnic discrimination by the state mitigates the positive effect of intense civil wars.

Key words: civil war, state capacity, tax compliance, tax morale, ethnic discrimination, Sub-Saharan Africa

JEL classification: H26, H56, H11, C83

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1 Introduction

The link between war-making and state-making has long been discussed in the social sciences. Scholars have highlighted the process through which war-time needs can engender institutional changes that have long-term positive effects on state capacity (e.g., see Hoffman and Rosenthal 2000; Karaman and Pamuk 2010; Tilly 2017a). In its most popular formulation, the so-called bellicist theory of state formation argues that waging war is necessary for power and survival, but it is also costly to sustain. Hence, war can make the state through three main mechanisms: extracting financial resources through taxation, building a national army, and building a national identity (Taylor and Botea 2008). While recent empirical evidence supports the bellicist paradigm and highlights how war has resulted in the expansion and consolidation of European states in pre-modern Europe (Cederman et al. 2023; Gennaioli and Voth 2015), scholars have debated the extent to which contemporary wars have contributed to either the formation or the erosion of the state elsewhere. Some scholars have provided evidence that pre-modern wars in Europe, Asia, and Africa have indeed contributed to the development of relatively stronger states (Dincecco et al. 2019; Young 2022). In this paper, we focus on contemporary civil wars in Sub-Saharan Africa to assess the extent to which this type of war-making is associated with a state-building process. Rather than focusing on the long-term institutional changes brought about by war, we examine the more ‘immediate’ shifts in citizens’ attitudes towards taxation as the initial step in a process that has the potential to strengthen the state over time (Callen et al. 2023).

Why should contemporary civil wars have a state-building effect comparable to that of pre-modern warfare, which was predominantly fought against outside threats? On the one hand, the exposure to the conflict itself may reduce the need to coerce tax extractions as citizens can perceive heightened security risks and become more willing to support the state. In such cases, concerns related to survival and safety are likely to trump economic considerations regarding taxes (Herbst 1990). Furthermore, this prioritization can foster heightened levels of collective identification and in-group solidarity, ultimately giving rise to war-induced fiscal patriotism (e.g., Feldman and Slemrod 2009; Frizell 2024; Konrad and Qari 2012). Importantly, research on the American Civil War demonstrates that these glue-like moments can also occur during intrastate conflicts when the ruling coalition invests in transferring patriotic sentiments to the citizens (e.g., Burdekin and Langdana 1993; Stark et al. 2008), a point that has been further modelled and tested by Belmonte et al. (2023).

On the other hand, the concept of war-induced fiscal patriotism may not be directly applicable to contemporary civil wars in Africa due to the political relevance of ethnic cleavages. Ethnic grievances resulting from discrimination and unequal access to power may hinder state-building efforts and patriotic calls of governments challenged by internal rivals. In addition, differently from interstate wars, some civil wars may have a relatively localized effect, thus limit-

ing the large-scale fiscal mobilization induced by major interstate wars. Moreover, if violence shapes attitudes towards the state, we should expect citizens to be differently affected by it, depending on their actual exposure to violence (Cassar et al. 2013). Proximity to particularly deadly areas may heighten the trade-off between security and taxation proposed by Herbst (1990), thus potentially encouraging tax compliance and tax morale.

Extant literature seems to indicate that the exposure to a civil war can be helpful in increasing patriotic sentiments and reinforcing states' extractive capacity, even in Sub-Saharan Africa (Thies 2007). But is this increased extraction capacity the result of a change in citizens' motivation to pay taxes and their fiscal compliance? We know much less about whether and how these mechanisms operate at the micro level, particularly in relation to tax compliance and tax morale. In other words, what are the micro-foundations of this macro-level effect? In this paper we aim to bridge this gap by focusing on the micro-level effects of civil wars on citizens' tax compliance and tax morale. With this aim, our empirical analysis combines conflict data from the Uppsala Conflict Data Program (UCDP) with survey data on African countries provided by the Afrobarometer (AfB). Our empirical strategy consists of two key components. First, we employ a fixed-effects model to test our hypotheses, defining the treatment as high exposure to conflict-related deaths within the five years preceding the survey. Second, we complement this panel data analysis with an 'unexpected event during survey design' approach (Muñoz et al. 2020), using coup d'état in neighbouring countries as the treatment. This allows us to capture the potential effects of a perceived exogenous *threat* of violence. As we only investigate the effect of coups that overlapped with the fieldwork of an AfB wave in a neighbouring country, their choice is as random as their timing.

Two key results emerge from our study. First, we show that high-intensity civil wars can lead to increased tax morale and tax compliance among exposed citizens. Second, this effect is significantly stronger in regions with higher levels of institutional trust, highlighting the importance of perceived government legitimacy as a critical scope condition. Notably, we do not find evidence supporting the expectation that this positive effect would be mitigated among citizens who perceive themselves as being ethnically discriminated against by the state (thus less willing to contribute to state-building efforts). Our contribution is three-fold. First, we explicitly test the mechanisms linking wars and state-making that *assume* wars will spur tax compliance and morale among citizens. In so doing, we contribute to the literature on war-making as state-making by explicitly testing how war shapes citizens' attitudes towards the state and its increased fiscal demands. Second, we consider the role of ethnic discrimination as a potential mediating factor. While previous research has explored factors such as ethnic diversity (Taylor and Botea 2008) or the ethnic dimension of conflict (Thies 2005), these studies often operate at a high level of aggregation, which can obscure the potential influence of scope conditions. This is surprising, as ethnic cleavages can serve as a barrier to state-building processes. As we show, however, our analysis on the role of ethnic discrimination provides mixed evidence.

Third, by considering both tax compliance and tax morale, we provide a more comprehensive view of how violence can shape governments' capacity to collect and mobilize domestic revenues.

2 Theory

The bellicist theory of state-making developed by Tilly argues that war-making can enhance tax revenues as the state seeks to finance its war efforts by collecting (more) revenues from citizens (see e.g., Taylor and Botea 2008; Tilly 2017b). This theory has found empirical support when applied to the European modern states and their formation process (see, e.g., Cederman et al. 2023; Gennaioli and Voth 2015). Historically, scholars have shown that even Asian and African states might have benefitted from wars in the pre-modern period that have resulted in stronger states (Dincecco et al. 2019; Young 2022). Nonetheless, Dincecco et al. (2019) note that the stronger state that emerged from African warfare does differ from the state that emerged from European wars. In fact, these stronger African states are also more likely to be *special-interest states*. According to Besley and Persson (2014), special-interest states differ from broad-interest states in a key dimension, namely the extent to which the ruling elite redistributes resources to its own group in a context of limited institutional constraints. As a consequence of this, Dincecco et al. (2019) further show that while historical warfare is associated with better fiscal capacity (as Tilly's theory would predict), it uniquely correlates with more contemporary civil wars *only* in Sub-Saharan Africa. This finding resonates with what Gutiérrez (2023: 565) has described as 'a Tillyian process without a Tillyian effect: the process of war-making, state-building and capital accumulation go hand in hand, yet the result of this process is not a strong democracy or even a centralized state as described by Tilly'.

In reviewing the most recent research trying to apply the bellicist paradigm to contemporary wars outside of Europe, Taylor and Botea (2008) note that numerous scholars have been sceptical towards this generalization. The most prominent source of scepticism is that the international context within which these wars are happening today is very different: the external threats of conquest and 'state death' no longer exist (Fazal 2004; Sørensen 2001). This suggests that the survival of the state as an independent entity is not threatened, regardless of the outcome of the civil war. In other words, the incentives that typically turn war-making efforts into state-building outcomes are absent. A similar shift has occurred in the international economy, where contemporary states increasingly rely on external financial flows (e.g., foreign aid or direct investments) rather than focusing on boosting domestic revenue mobilization. Relatedly, Thies (2005) and Centeno (2002) examine the case of Latin American states to conclude that in this context wars have resulted in more borrowing and debt rather than an expansion of states' extractive capacity. A key empirical result is that the potentially positive effect that ex-

ternal wars may still exert on state-building is countered by the negative impact of domestic conflict which ultimately 'overwhelms' the state (Thies 2005).

Hence, in comparison, interstate wars seem more likely to foster state-making than civil wars. However, when one considers the isolated effect of civil wars on state-making, as this paper aims to do, existing findings are more mixed. In theory, civil wars should increase states' attempts to expand fiscal capacity; however, not only do civil wars not happen within the context of significant external threats to the state, they also fragment the state in ways that make tax extraction more difficult (Herbst 2000). This may be partly due to the fact that most civil wars can be likened to limited wars (Centeno 2002) as they may not reach the intensity of major interstate wars that threatened states' survival and fostered state-making in Europe. Indeed, even among interstate rivalries, isolated or so-called proto-rivalries are not severe enough to have any significant effect on extractive capacity (Thies 2005). If anything, low-intensity warfare is more likely to 'act as a drain on the state's resources, never posing a serious enough threat to increase extractive capacity, and potentially diminishing it as the state bargains with citizens who might prefer to switch allegiance to another ruler' (Thies 2004: 63). The intensity of the civil war can also shape citizens' perceptions of the salience of security issues, and the need to support the state as a protection provider. While civil wars are likely to be less severe than interstate wars on average, one should still expect that *once civil wars break out*, citizens' attitudes towards taxation will be shaped by the intensity of the violence. A similar point is made in Rasler and Thompson's (2017) analysis, which confirms that only the most severe civil wars are positively associated with long-term improvements in state capacity. We aim to explore whether improvements in citizens' tax morale and reported tax compliance depend on the extent to which they are exposed to high-intensity civil wars, which may be a precursor of long-term enhanced fiscal capacity.

Following these arguments, we formulate the following two hypotheses:

H1: Individuals exposed to high-intensity civil wars report higher levels of tax morale compared to those exposed to low-intensity civil wars.

H2: Individuals exposed to high-intensity civil wars report higher levels of tax compliance compared to those exposed to low-intensity civil wars.

However, there is another crucial aspect of civil wars that may hinder the state-making process.¹ Taylor and Botea (2008) compare the effects of wars in Vietnam and Afghanistan, demon-

¹ Another reason why civil wars may fail at prompting state-building is the divided loyalties they produce. When governments are challenged by insurgent groups that are supported by part of the civilian population, the chances of successful broad fiscal mobilization are even smaller. This largely depends on the potential support base of rebel groups, which may be strong but limited in scope in some instances. Testing this argument would require a different theoretical framework and research design, hence it goes beyond the focus of this research paper.

strating that the absence of a sufficiently large ethnic group in Vietnam was a key factor that caused the war to 'break rather than make' the state. We build on this line of research to explore how contemporary civil wars in Africa might have exerted a similar outcome in terms of fiscal capacity (tax morale and tax compliance) and which role ethnicity may play in this regard.

More specifically, one would expect that the exposure to conflict does not only lead to higher fiscal pressure from the state but also to a so-called 'fiscal patriotism' stemming from conflict-induced higher levels of collective identification (Feldman and Slemrod 2009; Frizell 2024; Konrad and Qari 2012). Notice that fiscal patriotism entails an increase in both tax morale and tax compliance motivated by the state's war needs. In their modified version of the bellicist argument, Feinstein and Wimmer (2023) argue that the ability of rulers to increase fiscal capacity is also conditional on the consent of the ruled population. Such consent is greater when the government successfully defeats its challengers and when nationalism is mobilized to justify the war. This condition also suggests that the state must convince citizens that the fiscal burden is both necessary and fair. This is more likely to succeed when institutional trust is higher and citizens are more responsive to governments' demands for increased fiscal burden. On the other hand, in contexts where ethnicity is a political or even conflict cleavage, such efforts to persuade are more likely to fail. Ethnic grievances, especially in the form of perceived state-based discrimination, can obstruct processes of collective identification or foster in-group dynamics that are too parochial to support large-scale government's efforts to collect revenues (Cassar et al. 2013; Rohner et al. 2013). Like Taylor and Botea (2008), we believe that ethnicity plays an important role in shaping the effect of civil war on state-making, but we depart from them in evaluating the effect of (more or less institutionalized) ethnic grievances rather than ethnic homogeneity *per se*. We posit that fiscal patriotism is less likely to emerge among those who are not members of the ethnic group represented by the state or feel discriminated by the government. As noted by Justino (2022), in this context the emergence of non-state groups as challengers of the state may even revert the positive effect that wars are expected to have on state-building. This simple argument leads to our third hypothesis:

H3: Individuals from ethnically discriminated groups are less likely to report higher levels of tax morale when exposed to civil war violence.

In sum, if the bellicist argument holds true for civil wars in Sub-Saharan Africa through fiscal patriotism, we would expect higher levels of tax morale and tax compliance among citizens exposed to high-intensity conflict. For these individuals, the salience of the state's war-making efforts should be amplified, further motivating them to contribute to enabling the state to defeat the domestic threat. However, we would expect that perceptions of ethnic-based discrimination would mitigate this effect, as conflict is less likely to trigger fiscal patriotism among discriminated groups.

3 Data

Our analysis of how contemporary civil wars affect attitudes towards taxation among citizens relies on two key data sources.

Our first data source is the AfB, which since 1999 has designed, administered, and published high-quality survey data on African attitudes, experiences, and aspirations regarding politics, the economy, the state, and other areas. Importantly, many of the questions we focus on are included in the questionnaires across most or all rounds, allowing us to study whether attitudes towards taxation change with exposure to a conflict between 1999 and 2022 (AfB rounds 1–8). Attitudes towards taxation, our main outcome of interest, are measured by coding responses to the question, *‘Please tell me whether you disagree or agree with the following statement: People must pay taxes’*, where 1 means ‘Strongly disagree’ and 5 means ‘Strongly agree’. This question is included in rounds 2–8 and allows us to investigate the moral component of tax compliance in a way that is arguably the closest to the concept of tax morale typically studied in the literature (Andreoni et al. 1998; Luttmer and Singhal 2014). We also investigate whether respondents report having paid taxes, information which is collected in AfB rounds 4–7.

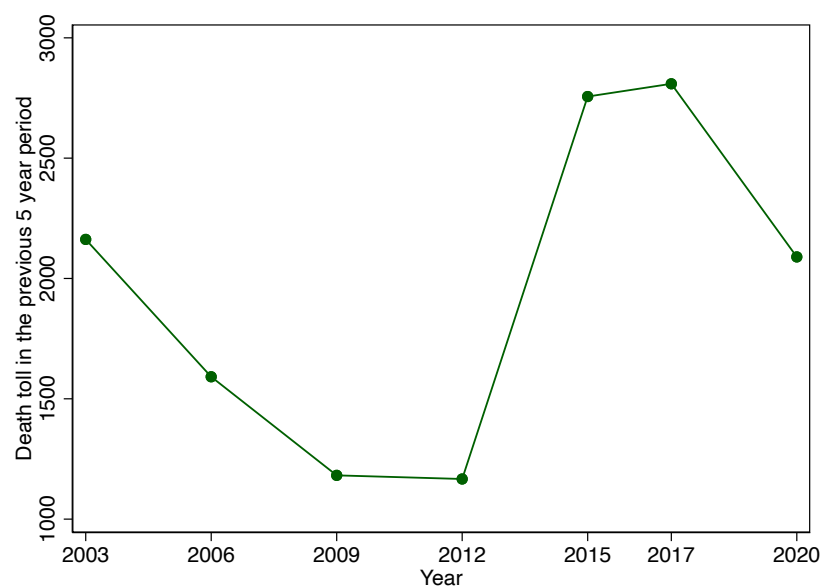
We mentioned in the theoretical framework that a corollary of the fiscal patriotism argument is that settings with higher institutional trust are more likely to lead to successful state-led fiscal mobilization. To test this potential mechanism, we retrieve information on the individual level of institutional trust from the same source. Specifically, we examine the level of trust towards the president of the state, the parliament, and the ruling party. All these variables are coded on a scale from 1 (*Not at all*) to 3 (*A lot*). In line with our third hypothesis on the role of ethnicity, we also consider the level of ethnic discrimination by the state as reported (and thus perceived) by the respondents. This is coded based on the question, *‘How often is the respondent’s ethnic group treated unfairly by the government?’*, with responses ranging from 0 (*Never*) to 3 (*Always*). Finally, we gather a set of individual characteristics, such as age, gender, educational level, and whether they live in urban or rural areas.

Second, to define the treatment, we use data from the UCDP to estimate citizens’ exposure to civil wars. More specifically, we use conflict-related deaths from the UCDP data to assess the intensity of the exposure to civil wars in the last five years, in line with the argument that severe wars are more likely to trigger state-building efforts. For each Sub-Saharan country in our sample, we calculate the number of conflict-related deaths in the five years before each AfB survey rollout. Table 1 reports the AfB survey rollout for rounds 2–8, as well as the related years and surveyed countries. On average, around 2,000 people died in the previous five years in our sample—however, as Figure 1 makes clear, there is considerable variation.

Table 1: Afrobarometer rounds and countries

AfB round	Year	# countries
2	2003	16
3	2006	18
4	2009	20
5	2012	34
6	2015	36
7	2017	34
8	2020	34

Source: authors' compilation based on data from the AfB.

Figure 1: Average exposure to civil wars over time

Source: authors' compilation based on data from the UCDP.

We take a logarithmic transformation of conflict-related deaths to scale down the variance and reduce the effect of outliers. Summary statistics for the main variables used in the analysis are reported in Table 2.

Table 2: Summary statistics

	Mean	SD	Min.	Max.	Count
Exposure to conflict (log)	2.154	1.244	0.000	4.497	171,835
Tax morale	3.684	1.235	1.000	5.000	262,442
Tax compliance	0.093	0.290	0.000	1.000	172,122
Trust president	1.750	1.134	0.000	3.000	265,478
Trust parliament	1.520	1.085	0.000	3.000	257,468
Trust ruling party	1.497	1.134	0.000	3.000	255,231
Trust president (lagged)	1.755	0.421	0.470	3.000	222,352
Trust parliament (lagged)	1.532	0.380	0.348	3.000	218,932
Trust ruling party (lagged)	1.512	0.397	0.394	2.714	215,513
Perceived ethnic discrimination (lagged)	0.168	0.095	0.000	0.561	213,137
Age	36.968	14.709	18.000	99.000	274,390
Education	4.056	2.472	0.000	9.000	275,635
Female	0.501	0.500	0.000	1.000	276,432
Urban	0.433	0.496	0.000	1.000	274,433

Source: authors' compilation based on data from the AfB.

4 Exposure to conflict and attitudes towards taxation

We start by analysing whether a higher exposure to civil conflict affects tax morale and tax compliance. To this purpose, we estimate the following two-way fixed effect regression:

$$y_{ijt} = \alpha_j + \lambda_t + \beta \text{Conflict}_{jt} + X_{it} + \varepsilon_{ijt} \quad (1)$$

where i is the respondent, j is the country, and t is the AfB round year. y_{ijt} is our outcome of interest, the individual level of tax morale in round t , while Conflict_{jt} is the country-level intensity of conflict over the last five years. X_{it} are the individual characteristics, while α_j and λ_t are the country and year fixed effects to absorb time invariant aspects at the country level and global shocks.

We estimate Equation 1 in Table 3. Initially, we present results without including controls or fixed effects (column 1). Interestingly, we observe a negative relationship, which remains even after adding year fixed effects (column 2). This suggests that individuals exposed to more conflict tend to exhibit lower tax morale. This finding may reflect the joint determination of exposure to conflict and attitudes towards the state. However, when we account for country-specific heterogeneity by including country fixed effects, the relationship reverses and becomes positive (columns 3 and 4). As expected, more intense conflict appears to stimulate tax morale among affected citizens. Specifically, column 4 shows that a 10% increase in conflict exposure (equivalent to 200 additional fatalities) is associated with a 0.03 increase in tax morale. Importantly, we also find that this rise in tax morale is reflected in increased self-reported tax compliance in the AfB surveys (column 5). Thus, individuals affected by conflict not only report higher levels of tax morale, they are also more likely to report having paid taxes to the government.

Table 3: Exposure to conflict, tax morale, and tax compliance

	Dependent variable is ...				Tax compliance
	Tax morale				
	(1)	(2)	(3)	(4)	
Exposure to conflict (log)	−0.016*** (0.002)	−0.017*** (0.002)	0.031*** (0.005)	0.030*** (0.005)	0.003* (0.002)
AfB round FE	No	Yes	Yes	Yes	Yes
Country FE	No	No	Yes	Yes	Yes
Indiv. controls	No	No	No	Yes	Yes
Observations	163,709	163,709	163,709	162,311	97,492
R ²	0.000	0.020	0.058	0.062	0.050

Note: the unit of observation is at the individual level. The dependent variable is the individual level of tax morale in columns 1–4 and tax compliance in column 5. Individual controls are age, gender, the respondent's educational level, and whether the respondent lives in a rural (or urban) area. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: authors' calculations.

In Table 4 we further investigate whether higher exposure to conflict in the past five years is associated with increased tax morale, specifically in countries with high levels of institutional trust. For governments in these countries, it may be easier to convince citizens of the neces-

sary costs of war, thereby fostering the consensus identified in the literature as a key factor for fiscal patriotism. To ensure that we are measuring trust as a pre-treatment condition, we compute the country-level average trust from the previous AfB round and interact this variable with Conflict_{jt} . Column 1 examines trust in the president, column 2 focuses on trust in parliament, and column 3 looks at trust in the ruling party.

Table 4: Exposure to conflict, tax morale, and past levels of institutional trust

	Dep. var. is tax morale		
	(1)	(2)	(3)
Exposure to conflict (log)	−0.007 (0.022)	−0.096*** (0.024)	−0.007 (0.023)
Trust in president (lagged)	−0.108*** (0.025)		
Exposure to conflict (log) × trust in president (lagged)	0.018 (0.012)		
Trust in the parliament (lagged)		−0.130*** (0.034)	
Exposure to conflict (log) × trust in the parliament (lagged)		0.077*** (0.015)	
Trust in the ruling party (lagged)			−0.027 (0.030)
Exposure to conflict (log) × trust in the ruling party (lagged)			0.020 (0.014)
AfB round FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes
Indiv. controls	Yes	Yes	Yes
Observations	126,765	124,754	125,902
R ²	0.036	0.036	0.036

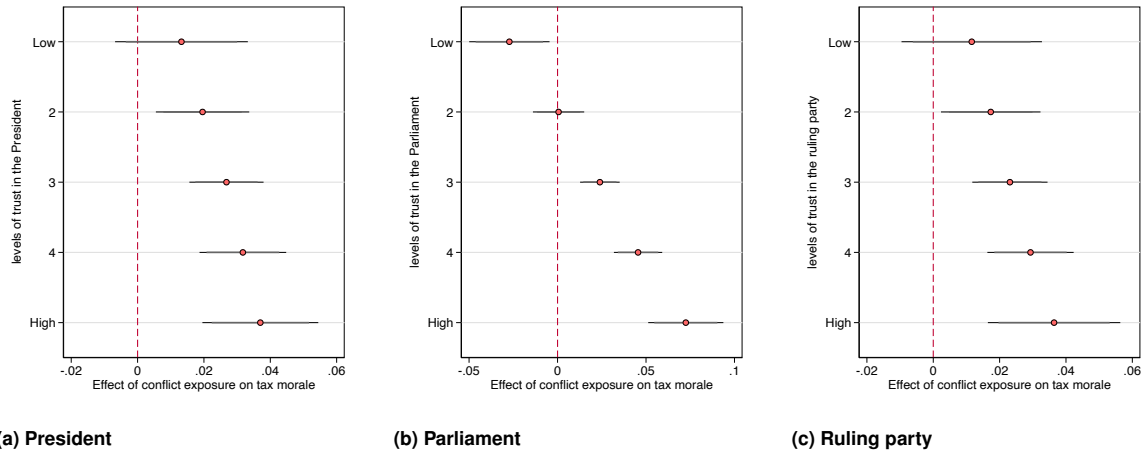
Note: the unit of observation is at the individual level. The dependent variable is the individual level of tax morale. Individual controls are age, gender, the respondent's educational level, and whether the respondent lives in a rural (or urban) area. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: authors' calculations.

To facilitate the interpretation of our results, we compute the marginal effects in Figure 2—the impact of conflict exposure on tax morale (shown on the x -axis) at various levels of institutional trust (on the y -axis). Figure 2 presents the corresponding effects, along with their 95% confidence intervals. As expected, the findings show that the positive average effect observed in column 4 of Table 3 is driven by regions with relatively high pre-existing levels of institutional trust, particularly trust in the president and parliament.

While predetermined levels of institutional trust play an important role in shaping tax morale, we find no evidence that conflict exposure itself significantly affects trust levels (Table 5).

Figure 2: Exposure to conflict and tax morale at various levels of institutional trust



Source: authors' compilation.

Table 5: Exposure to conflict and present levels of institutional trust

	Dep. var. is trust in ...		
	President (1)	Parliament (2)	Ruling party (3)
Exposure to conflict (log)	0.001 (0.005)	-0.002 (0.004)	-0.034*** (0.005)
AfB round FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes
Indiv. controls	Yes	Yes	Yes
Observations	165,109	158,645	159,878
R ²	0.108	0.131	0.115

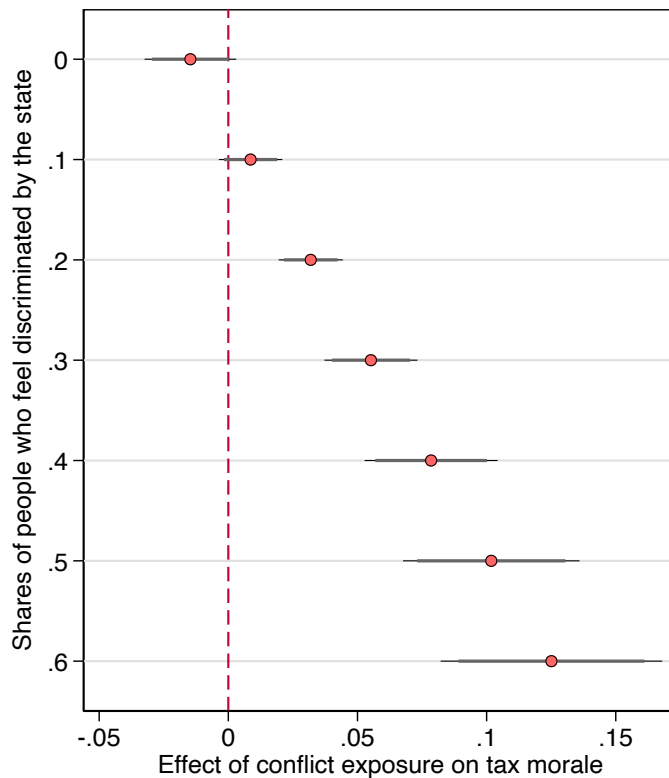
Note: the unit of observation is at the individual level. The dependent variable is the individual's level of trust in the president (column 1), the parliament (column 2), and the ruling party (column 3). Individual controls are age, gender, the respondent's educational level, and whether the respondent lives in a rural or urban area. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: authors' calculations.

Finally, we investigate whether the effect of conflict is moderated by perceived levels of ethnic discrimination by the state. As described above, such information is provided in the AfB data at the individual level. We compute a dummy taking a value of 1 if the respondent reports that the government discriminates against the ethnic group *always* or *often*. Similar to what we did for institutional trust, we compute the country-level average of this dummy (which is then a share of people who feel discriminated against) in the previous period to alleviate endogeneity issues. We then interact this variable with Conflict_{jt} and estimate the marginal effects. The marginal effects are graphically illustrated in Figure 3 (x-axis) for various shares of perceived ethnic discrimination (y-axis). Around the point estimations we again report the 95% confidence intervals to assess the statistical significance of these effects. As one can see, the positive average effect documented in column 4 of Table 3 is driven by areas where ethnic discrimination by the state is perceived to be more severe. This is the opposite of what we would have expected, namely that if the government discriminates against citizens because of their ethnicity, nationalist claims are less likely to be appealing and to boost tax morale.

Nonetheless, high conflict intensity seems to trump perceived injustices. It should be noted that perceptions of discrimination may not necessarily be related to institutionalized injustices (e.g., systematic exclusion of some ethnic groups from political and economic power). In other words, ethnic grievances in our sample may not be severe enough to curb fiscal patriotism. In fact, these grievances may even be overcome in the face of significant security threats.

Figure 3: Exposure to conflict and tax morale at various levels of ethnic discrimination



Source: authors' compilation.

The results presented above suggest that civil wars may increase tax morale and tax compliance among citizens exposed to their most intense manifestations. In the following section, we provide evidence on whether a threat to domestic security—specifically, a coup d'état in a neighbouring country—induces a similar shift in tax morale and compliance among citizens.

5 Does the threat of violence enhance attitudes towards taxation?

While recent research casts doubt on coups' contagiousness (Miller et al. 2018), political elites often engage in coup-proofing strategies when neighbouring regimes experience abrupt changes, such as coups or political upheaval. Consequently, the threat of instability can create similar incentives for governments to build fiscal capacity, and to gather citizens' support towards this goal. This resonates with Centeno's claim that 'it is not necessarily war itself, but the threat of

war that often produces the positive state-building consequences' (Centeno 2002: 266). In this section, we use coups in proximate countries to explain exogenous variation in the probability of being exposed to a conflict at home. Focusing on the reduced-form relationship, we examine whether coups in neighbouring countries foster tax morale and compliance in the home country. We are aware that civil wars and coups may not exert the same effect on citizens. Civil wars are likely to spur, among other things, fiscal patriotism as they are costly and often protracted. Coups, on the other hand, happen rapidly and with more limited violence. Yet, coups can initiate a spiral of violence, hence potentially fostering willingness to help the state in repelling them. Also, because of the swift change in the status quo they produce, they are more likely to send a clearer and unambiguous signal of the threat of violence compared to a civil war that may take time to escalate.

We do so by taking advantage of an *unexpected event during survey design* (UESD) (see Muñoz et al. 2020). The UESD exploits the informational content of a coup that occurred in a neighbouring country to investigate whether the AfB respondents interviewed in the days immediately after the coup exhibit higher levels of tax morale and compliance relative to those interviewed in the days before. The identifying assumption is that the date of the coup in the neighbouring country is uncorrelated to the survey rollout in the home country—an assumption that is likely to hold since AfB rollout is planned in advance and the exact timing of coups is unpredictable.

This analysis offers the advantage of testing an alternative channel through which (the threat of) violence may support state-building processes—the informational mechanism. This is important because exposure to conflict can influence attitudes towards the state through other channels, such as exacerbating deprivation and poverty. Additionally, the UESD provides the benefit of measuring the effects of conflict exposure in the immediate term, capturing the heightened salience of security that was not captured in the previous analysis. Finally, and most importantly, this analysis offers estimates that are more plausibly interpreted as causal, thereby strengthening the internal validity of our earlier findings.

We compare the timing of coups that occurred in the Sub-Saharan African countries between 1999 and 2018 with the AfB surveys rollout dates. The former list is provided by Chin et al. (2021). Among all these events, only two coups coincided with AfB waves. First, a (successful) military coup was carried out in Guinea on 23 December 2008, during the rollout of AfB 4 in nearby Liberia and Mali. Second, a coup occurred in Chad on 20 April 2021, during the rollout of AfB 8 in Sudan. This information is summarized in Table 6, while summary statistics of the resulting dataset are reported in Table 7.

Table 6: Coups, Afrobarometer rounds, and affected countries

Coup	Date	AfB round	Neighbouring countries
Guinea	23 December 2008	4	Liberia, Mali
Chad	20 April 2021	8	Sudan

Source: authors' compilation.

Table 7: Summary statistics for the UESD dataset

	Mean	SD	Min.	Max.	Count
Tax morale	3.555	1.316	1.000	5.000	4,130
Trust president	1.691	1.133	0.000	3.000	4,140
Trust parliament	1.634	1.079	0.000	3.000	2,364
Trust ruling party	1.569	1.076	0.000	3.000	2,362
Perceived ethnic discrimination	0.534	0.876	0.000	3.000	2,296
Age	35.704	13.034	18.000	95.000	4,214
Female	0.500	0.500	0.000	1.000	4,232
Urban	0.350	0.477	0.000	1.000	4,232
Education	3.321	2.787	0.000	9.000	4,217

Source: authors' calculations.

We present the results of the UESD analysis in Table 8. In column 1, we pool all individuals together and find that those interviewed after a coup in a neighbouring country report higher levels of tax morale compared to those interviewed in the days before. However, this effect is not very stable and proves sensitive to the inclusion of individual characteristics (column 2) and country fixed effects, which are important for accounting for country-specific factors (column 3). In columns 4–6 we break down the estimates by country. As shown, the effect of a coup in a neighbouring country on tax morale is only positive and statistically significant in Liberia (column 4). This is possibly due to the fact that, of the three countries here, Liberia is the one with the overall highest level of tax morale. We check this in Figure 4, which reports the distribution of respondents across the levels of tax morale. The distribution of Liberia stochastically dominates those of Mali and Sudan. One possible reason for this is that Liberia was undergoing a peaceful post-conflict transition with the support of a strong UN peacekeeping mission, whereas Sudan and, to a lesser extent, Mali have experienced more frequent instability. In a post-conflict setting, the salience of a security threat may be heightened as citizens may fear a new spiral of violence.

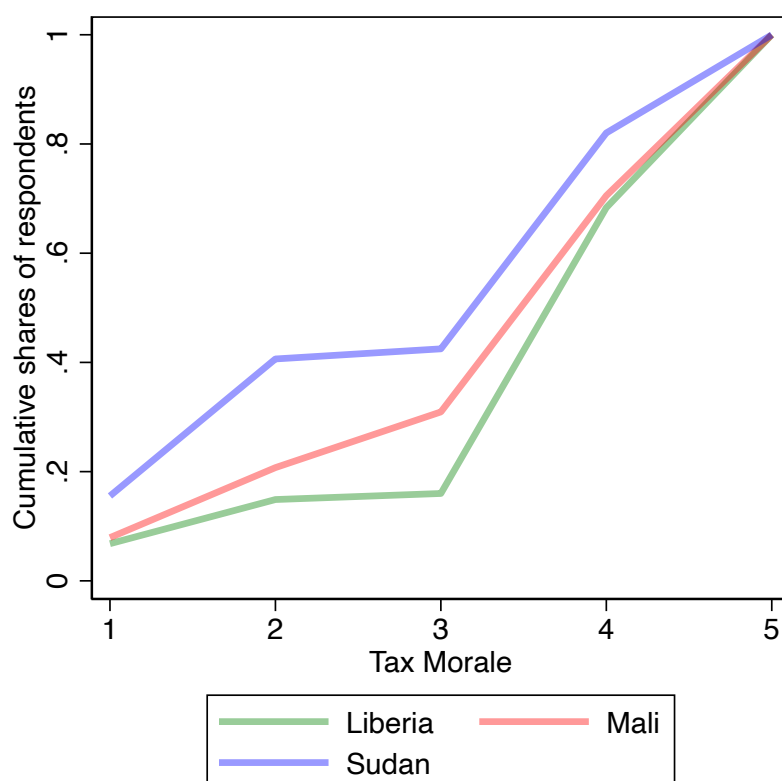
As in our previous analysis, we also test whether institutional trust serves as a potential enabling link between conflict and tax morale. The results are presented in Table 9, where we use the three proxies for institutional trust from earlier as independent variables in the regression equations. The regression estimations show no evidence that increased institutional trust explains the rise in motivation to pay taxes. On the contrary, our findings suggest that coups in neighbouring countries tend to reduce trust, regardless of the specific country or institution considered.

Table 8: Tax morale after a coup in neighbouring countries

	Dep. var. is tax morale					
	All	Liberia	Mali	Sudan		
	(1)	(2)	(3)	(4)	(5)	(6)
Post	0.220*** (0.051)	0.154*** (0.054)	0.025 (0.059)	0.266** (0.120)	-0.001 (0.071)	-0.439* (0.265)
Country FE	No	No	Yes	No	No	No
Indiv. controls	No	Yes	Yes	Yes	Yes	Yes
Observations	4,130	4,100	4,100	1,166	1,210	1,724
R ²	0.004	0.012	0.064	0.023	0.020	0.015

Note: the unit of observation is at the individual level. The dependent variable is the individual's level of trust in the president (column 1), the parliament (column 2), and the ruling party (column 3). The sample in columns 1–3 includes respondents from Liberia and Mali in AfB 4 and from Sudan in AfB 8. Column 4 reports estimations by using only respondents from Liberia. Column 5 uses only respondents from Mali and column 6 only respondents from Sudan. Individual controls are age, gender, the respondent's educational level, and whether the respondent lives in a rural or urban area. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: authors' calculations.

Figure 4: Distributions of tax morale

Source: authors' compilation.

Table 9: Institutional trust after a coup in neighbouring countries

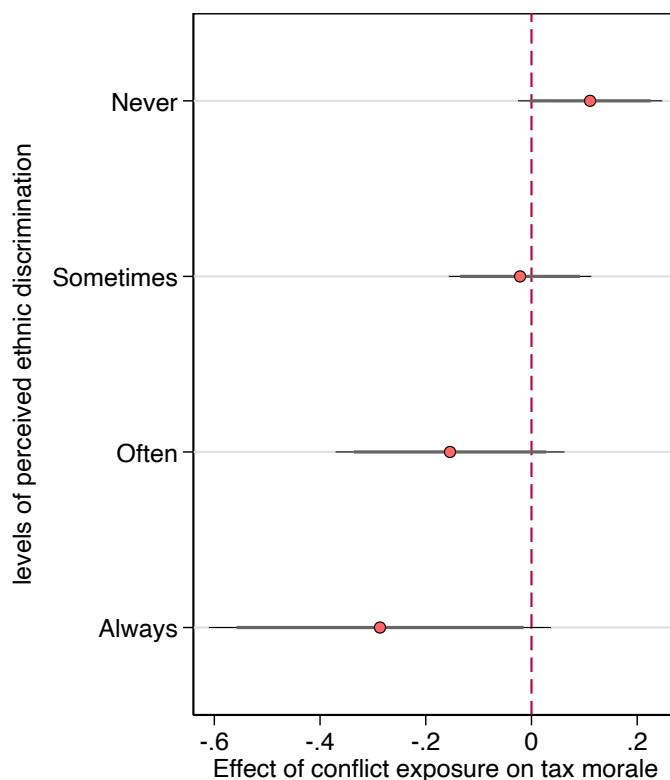
	President				Dep. var. is trust in ... Parliament			Ruling party		
	All (1)	Liberia (2)	Mali (3)	Sudan (4)	All (5)	Liberia (6)	Mali (7)	All (8)	Liberia (9)	Mali (10)
Post	-0.146*** (0.052)	-0.214* (0.113)	-0.084 (0.060)	-0.717*** (0.196)	-0.096* (0.052)	-0.305*** (0.106)	-0.011 (0.059)	-0.150*** (0.052)	-0.373*** (0.106)	-0.062 (0.059)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Indiv. controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,108	1,177	1,189	1,742	2,342	1,175	1,167	2,339	1,168	1,171
R ²	0.064	0.020	0.033	0.029	0.051	0.016	0.027	0.028	0.013	0.032

Note: the unit of observation is at the individual level. The dependent variable is the individual's level of trust in the president (columns 1–4), the parliament (columns 5–7), and the ruling party (columns 8–10). The sample in column 1 includes respondents from Liberia and Mali in AfB 4 and from Sudan in AfB 8. In columns 5 and 8 the sample includes respondents from Liberia and Mali in AfB 4 (trust in the parliament and the ruling party is not asked in Sudan). Columns 2, 6, and 9 report estimations by using only respondents from Liberia. Columns 3, 7, and 10 use only respondents from Mali, while column 4 only those from Sudan. Individual controls are age, gender, the respondent's educational level, and whether the respondent lives in a rural or urban area. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: authors' calculations.

Finally, we examine whether perceptions of the state moderate the effect of conflict. To do so, we interact the post-coup dummy (equal to 1 if the respondent was interviewed after the coup) with the level of perceived ethnic discrimination by the government. We then estimate the marginal effects, which measure the impact of being exposed to the conflict (i.e. interviewed immediately after the coup) on tax morale at various levels of perceived discrimination. These marginal effects are illustrated in Figure 5. As shown, the effect of a coup becomes negative for individuals with a higher perceived level of ethnic discrimination. This result differs from what we observed in Figure 3 and aligns more closely with our original expectations. There are two possible explanations for this discrepancy. First, as we mentioned, the signal conveyed by a nearby coup may differ from the one needed to spur mobilization and fiscal patriotism. Second, the UESD is based on a much narrower time window, which may account for the divergent results. Third, ethnic grievances may have a different impact when a civil war is ongoing compared to when there is a more general, less tangible threat to security (without immediate material consequences). That said, the negative coefficient is only statistically significant at the 10% level and only among those who feel they are consistently discriminated against by the state.

Figure 5: Exposure to a coup in a neighbouring country and tax morale at various levels of ethnic discrimination



Source: authors' compilation.

6 Conclusions

Extant research has evaluated the bellicist theory originally proposed by Tilly outside of Europe and found some evidence that, under certain conditions, warfare can still make the state. However, limited attention has been devoted to whether severe civil wars specifically, which are the most common type of warfare in Sub-Saharan Africa, can trigger tax morale and tax compliance among affected citizens. Rather than assuming that citizens' preferences and behaviours will naturally align with the government as violence escalates, leading to higher fiscal capacity, we test this hypothesis using individual-level data. We argue that this mechanism is more likely to occur if citizens are exposed to intense violence and do not perceive regular discrimination by the central government.

We combine survey data from seven waves of the AfB with information on conflict-related deaths from the UCDP. Our results confirm that only exposure to intense civil wars (measured as the cumulative number of conflict-related deaths over the last five years) leads to an increase in tax morale and tax compliance. The UESD analysis further supports the link between tax morale and insecurity, even when the treatment is defined as a threat of violence (i.e. a violent coup d'état in a nearby country), especially in contexts where security concerns are more pronounced. However, the results regarding ethnic discrimination are mixed. On the one hand, perceptions of ethnic injustice seem to be overshadowed by the immediate security risks, as tax morale increases even among those who perceive themselves to be discriminated against. Yet, the UESD analysis does not provide clear support for this result. This paper presents the first individual-level analysis of how civil warfare influences citizens' attitudes towards taxation, significantly contributing to the literature on war-induced fiscal patriotism, which is crucial for understanding state-building processes.

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