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## One year after: Has the COVID-19 pandemic increased violence in sub-Saharan Africa?

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# G I G A *Working Papers*

German  Institute for Global and Area Studies  
Leibniz-Institut für Globale und Regionale Studien

GIGA Research Programme:  
Peace and Security

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## **One Year After: Has the COVID-19 Pandemic Increased Violence in Sub-Saharan Africa?**

Matthias Basedau and Mora Deitch

No 327

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# One Year After: Has the COVID-19 Pandemic Increased Violence in Sub-Saharan Africa?

## Abstract

In spring 2020, observers and practitioners warned that COVID-19 would increase violence in sub-Saharan Africa by creating an economic shock that would lead to distributional conflicts and government repression. Compared to before the pandemic, violence did increase in 2020, rising by 40 and 60 per cent in terms of fatalities and events, respectively. Controlling for important confounders, COVID-19 proves significant to the increase in violence in many models; however, a robust effect can be found only for “COVID-19 unrest,” which forms a fraction of the violence and stems from the stringency of government reactions rather than the pandemic itself. Pre-pandemic fragility accounts best for the region’s rise in violence. Expert assessments confirm these findings but also yield evidence warning against prematurely announcing an all-clear. The fallout of the pandemic on conflict is likely to have a longer period of incubation, and there are initial indications that conditions will worsen.

Keywords: COVID-19, armed conflict, fragility, sub-Saharan Africa, unrest, restrictions

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# One Year After: Has the COVID-19 Pandemic Increased Violence in Sub-Saharan Africa?

Matthias Basedau and Mora Deitch

## Article Outline

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- 5 Discussion and Conclusion

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## 1 Introduction<sup>1</sup>

In April 2020, the German minister for development cooperation Gerd Müller and UN Secretary-General António Guterres warned that the COVID-19 pandemic<sup>2</sup> might lead to more violence and instability, especially in Africa (Juninger, 2020; Davidson, 2020). While many conflict

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1 The authors would like to thank the Volkswagen Foundation for generously funding research in the project “Corona Conflicts? Analysing effects of the COVID-19 pandemic on violent conflicts in Africa” (CorConA). We are also grateful to Sabine Donner and Hauke Hartmann of the Bertelsmann Transformation Index (BTI) for approving use of the preliminary results of the latest BTI round (to be published in 2022). We also thank Julia Grauvogel, Lisa Hoffmann, and Christian von Soest for valuable suggestions on a draft of this paper.

2 We use terms such as “COVID-19,” “corona/coronavirus,” and “the pandemic” synonymously throughout the paper.

researchers quickly theorised mechanisms that may lead to violence such as economic shocks or the enforcement of restrictions, even making some predictions (e.g., Moyer & Kaplan, 2020), empirical evidence remains scarce. Contrary to many predictions and despite substantial under-reporting, the virus has not (yet) hit Africa as hard as expected (e.g., Maeda & Nkengasong, 2021). Yet, violence has indeed increased. As reported by the Armed Conflict Location and Event Data project (ACLED), numbers of fatalities from violence increased for 2020 by no less than 10,000 or 40 per cent compared to the period from 2015 to 2019. In terms of violent events, the rate increased more than 60 per cent (ACLED, 2021). This article presents an interim balance sheet and asks: To what extent can this increase be attributed to the pandemic? What role do other factors play, especially aspects of fragility such as previous conflict, low development, and corruption? Are there differences regarding the types of violent conflict?

We develop an innovative theoretical framework and test its implications with statistical analyses and qualitative expert assessments. Results uniformly suggest that the effect on the increase in violence has been limited thus far. We can establish a robust relationship between the stringency of lockdowns and “COVID-19 unrest,” but this type of violence represents only a small fraction of the violence. The severity of the pandemic in terms of corona-related deaths seem to have a contributing effect, but this is not statistically robust across several models. Pre-virus fragility manifested in, for example, low development, a deficient health sector, and especially jihadism, do much more to explain the increase in violent conflict. Yet, the fallout of the pandemic may have a longer period of incubation vis-à-vis its effects on conflict, and there are initial indications that COVID-19 dynamics will have further negative effects in the future. Research needs to gather more fine-grained data and carry out multi-method analyses to provide the necessary basis to effectively counter conflict-related fallout on peace and security.

This paper makes several contributions to the study of the effect of the pandemic on violent conflict in Africa and elsewhere. First, it provides a nuanced theoretical framework to study the relationship. Second, it is one of the first studies to analyse empirical evidence across the region. Third, it arguably shows that combining several methods, especially statistical analyses and qualitative assessments of country cases, can paint a more complete picture than mono-methodological studies.

The remainder of this paper proceeds as follows: We first review the limited literature on the link between the COVID-19 pandemic and violent conflict. The following section presents our theoretical model of how “virus shock” may lead to an escalation in violence. We conceptualise the pandemic, government responses, and related dynamics as specific variables in an otherwise regular model of potential escalation in which previous fragility, discourse over effects, mobilisation capacities, and management of conflicts determine conflict dynamics. We then outline our empirical strategy, which includes a mixed-methods approach with several levels of comparison, comprising descriptive findings, bivariate correlations, and multivariate regressions, as well as expert assessments and spotlights on pertinent country cases. Results in the following section demonstrate that COVID-19 has contributed to an uptick in violence,

yet this effect seems to quite limited thus far. We conclude by discussing the results against the backdrop of our theoretical expectations and draw conclusions for future research.

## 2 Previous Work

Just over 15 months after the beginning of the COVID-19 pandemic, few empirical studies have been devoted to its on violent conflicts in Africa and elsewhere. However, scholars were quick to theorise various causal mechanisms that link the pandemic and violence (e.g., Haer & Demarest, 2002; Mehrl & Thurner, 2020; Norlen, 2020; Basedau & Deitch, 2020; von Soest, 2020). The mechanisms can be organised abstractly in different ways. Mechanisms are either direct and indirect; are based on motive or capacity; focus on political or economic effects; centre on state or non-state actors; or work at the domestic or international level. While most mechanisms theorise escalating effects, some discuss potentially pacifying ones (e.g., von Soest, 2020):

The more direct mechanisms theorise unrest founded on fears of being infected or of government restrictions (e.g., Basedau & Deitch, 2020). However, most mechanisms theorise a rather indirect or context-dependent effect. Authors mainly argue that the virus affects economies, relations between identity groups, or power relations between or within the respective societies and governments – which then may escalate into violence (e.g., Moyer & Kaplan, 2020). Usually, the mechanisms expect this escalation to happen based on the motive of aggrieved or opportunistic actors. However, several authors expect the capacity of such actors to be affected, in that they either are additionally constrained by the pandemic or take advantage of the government's reduced capacity (e.g., von Soest, 2020). A related set of mechanisms distinguishes between types of actors, mainly state and non-state actors. While governments might step up (violent) repression to enforce restrictions, non-state actors might take advantage of a paralysed state. Jihadists have therefore declared the virus a “gift from god” and a “punishment of their enemies” (e.g., Norlen, 2020; Washington Times, 2020). There is also a substantial risk that minorities might be subjected to scapegoating (e.g., Basedau & Deitch, 2020).

Authors also put varying emphasis on whether the effects will manifest economically, politically, socially, or otherwise, but economic factors generally play a prominent role (e.g., Moyer & Kaplan, 2020). While some works stress domestic factors, others point to international influences, as foreign aid or demand for export commodities or foreign investment may shrink. In political terms, external actors might reduce their contribution to peacekeeping and other peacemaking initiatives (e.g., Haer & Demarest, 2020). Finally, several scholars point to pacifying effects (e.g., Basedau & Deitch, 2020; Berman et al., 2020; von Soest, 2020). In times of fear, people may first unite against a common threat (the virus), or restrictions may reduce the capacity of non-state actors – not just the government – to engage in violent conflict (e.g., Berman et al., 2020; Ide, 2021).

Empirical evidence is naturally scarce. Ide (2021, online first December 2020) was quick to assess some, rather ambivalent, effects in already highly escalated and/or protracted conflicts such as in Afghanistan, Colombia, and India. Mehrl & Thurner (2020) could not find a meaningful global impact on conflict intensity as of August 2020. Bloem & Salemi (2021, online first 11 November 2020) found that armed conflict had decreased globally from the start of the pandemic until November 2020. However, they also observed a lot of heterogeneity in the disparate cases. No substantial effect was found by the current authors as of late May 2020 (Basedau & Deitch, 2020), nor in later assessments by others (e.g. Neat & Desmidt, 2021). We also developed scenarios for conflict types, assuming that more organised and bloodier violence is less likely in the short run and may materialise only after a long incubation period, except when conflict is already present. A data-based statistical prediction was published in the journal *Foreign Policy*. Moyer & Kaplan's (2020) forecast model expects that "an additional 13 countries are likely to see new conflicts through 2022 – an increase of 56 per cent compared to the pre-pandemic forecast – due to the coronavirus pandemic and government responses, such as national lockdowns." The authors "now expect 35 countries to experience instability between 2020 and 2022, more than at any point over the past 30 years."

In the absence of substantial empirical data and, consequently, analysis, one may turn to texts on previous epidemics and pandemics such as the multiple waves of the "Black Death," the 1918 influenza pandemic, and various outbreaks of Ebola (e.g., von Soest, 2020). However, they offer only limited insight on the corona–conflict link (see e.g., Basedau & Deitch, 2020). First, pandemics are rarely discussed or analysed in relation to conflict; second, in the rare cases they are, systematic studies are an exception (e.g., Kraemer et al. 2020 on Ebola), as most rely on anecdotal evidence. For example, diseases can lead to scapegoating of minorities. Infamously, the "Black Death" pandemic prompted anti-Semitic pogroms (Voigtländer & Voth, 2020). The 1918 "Spanish Flu," itself a misnomer based on scapegoating, happened at the end of World War I and may even have contributed to the war fatigue, though its economic effects possibly advancing later conflicts cannot be excluded. The deadly Ebola virus has affected African countries such as Liberia, Sierra Leone, and Guinea, as well as the Democratic Republic of the Congo (DRC). In the latter, war has been almost daily business, especially in the eastern part of the country, where Ebola possibly contributed to unrest (Kraemer et al. 2020). Liberia and Sierra Leone have been rather peaceful, recovering from civil wars that raged until the earlier 2000s. In Guinea, only in recent years have power struggles with ethnic overtones escalated. However, Liberia and other countries have seen violence in direct connection with the disease and its handling. Medical personnel were attacked and other spontaneous unrest occurred during the Ebola crisis in the early 2000s (Cohn & Kutalek, 2016; Gonzalez-Torres & Esposito, 2020) or at the time other deadly, communicable diseases were raging (e.g., Cervellati et al., 2017; Evans, 1988). Such low-intensity violence – or domestic violence – has occurred in



the current pandemic, and may continue to (Basedau & Deitch, 2020).<sup>3</sup> To sum up, there is no dearth of possible theoretical effects and related mechanisms. Yet, we lack empirical knowledge as to what has happened or will likely happen.

### 3 Theorising the Effects<sup>4</sup>

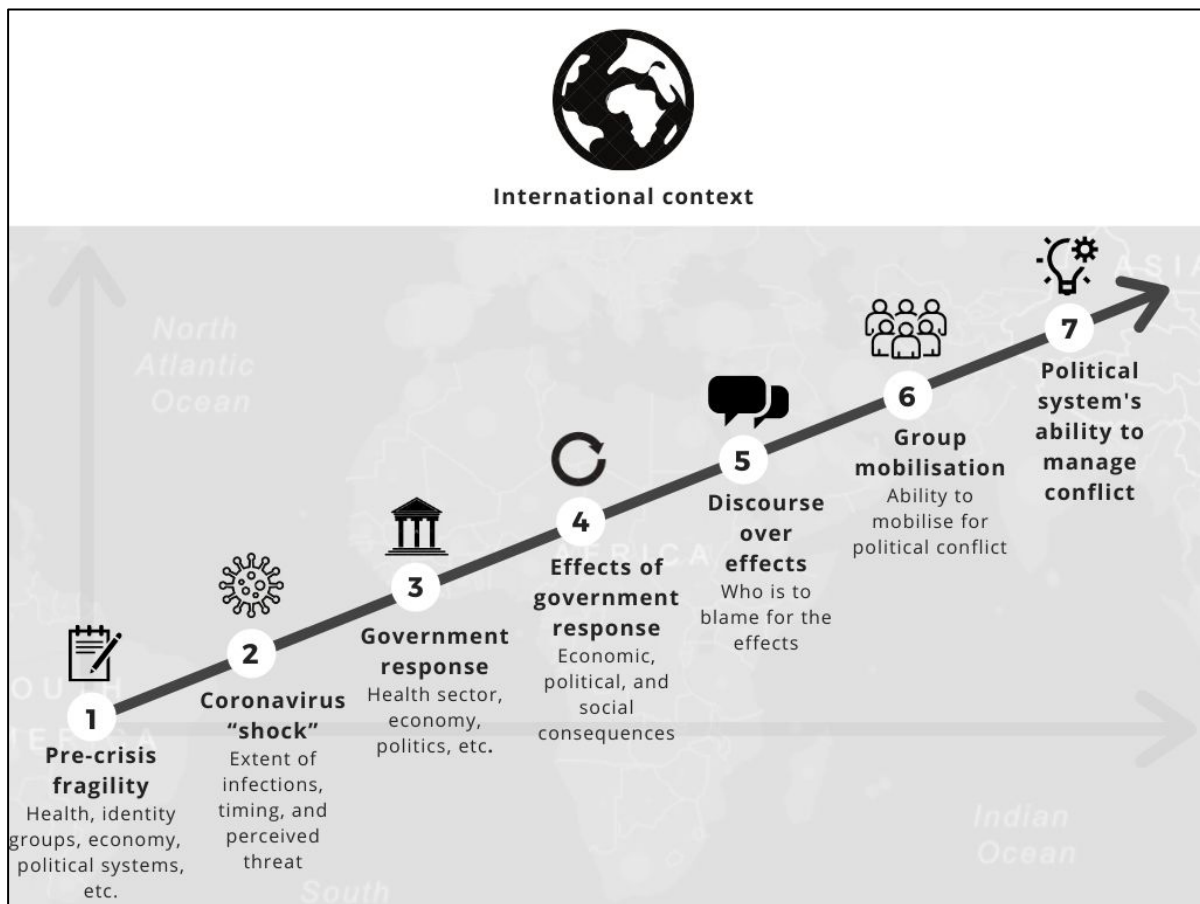
Our basic idea is that the coronavirus represents an external “shock” in an otherwise conventional theoretical model of potential escalation to violence. According to this theory, there is no simple direct effect of the virus on violent conflict. Actors build motivations according to their perception of situational conditions and pre-existing preferences. These perceptions and motivations might be rational or irrational. The extent to which actors translate their motivations into action depends on their capacity to mobilise and the extent to which surrounding conditions provide opportunity – simply put: allow them – to act. These processes are complex, as they involve many steps that are not completely disjointed and will strictly follow one another. Complexity further increases through interactions between actors within the political system and its international context. In short, violent conflict is the result of human interaction based on structural and other conditions.

Figure 1 illustrates this model in a potential “staircase” causal chain of escalation with several steps. Our main expectation is that the strongest effects on political stability materialise not immediately but after a period of incubation following the initial “virus shock.” This period includes the government responses and their effects; discourse over effects; and mobilisation as well as the resulting formation and possible escalation into violent conflict. After discussing these steps, we formulate a set of simple hypotheses for the situation in sub-Saharan Africa approximately one year after of the beginning of the pandemic.

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3 If we conceptualise the pandemic as a natural disaster, we might turn to the literature on the nexus of such disasters and violent conflict. Yet, natural disasters are usually not among the most prominent drivers of violence, according to both meta-analyses (e.g. Hegre & Sambanis, 2006; Dixon, 2009) and expert assessments (e.g. Mach et al., 2019).

4 This section is an updated version of our theoretical model developed in the manuscript “Pandemic Fallout” (Basedau & Deitch, 2020).

**Figure 1. A Model on Potential Escalation to “Corona Conflicts”**

Source: Authors' compilation.

- 1) The first important variable refers to the condition of fragile or vulnerable countries was when the coronavirus hit. This *pre-pandemic fragility*<sup>5</sup> can be broken down into three overarching aspects: First, the state of the health sector and the vulnerability of the population to infection will decide how well a given country can deal with the health-related effects of the crisis. Cultural practices that challenge social-distancing rules and the influence of traditional and religious values and beliefs may also matter. Second, socio-economic conditions will play a role, including the characteristics of the economy and the distribution of wealth between several identity-based and other groups. Third, political factors count – particularly regarding how the political system has managed diseases and conflicts. One may summarise these factors as “levels of state capacity.” These three aspects should not be considered exclusively at the country level but also viewed in the regional and international context. In sum, poor and fragile states with weak health sectors in conflict-prone regional contexts will, all other factors being equal, have more difficulties avoiding conflict

5 By the term “fragility,” we refer to no specific notion but use it as a “container,” comprising factors that make a country vulnerable to the pandemic or conflict.

as a result of the coronavirus shock. In particular, countries with existing violent conflicts seem at risk.

- 2) The second variable is the magnitude of the *coronavirus shock*. This shock has at least three components, the first being the speed at which infections spread and how many people become sick and die. Second, timing matters: places that were hit later by the pandemic – African countries fit that description – might have (had) a better chance of dealing with the virus successfully. Timing also refers to the length of the pandemic: while we initially assumed the “shock” to be relatively short, the pandemic has gone on for quite a while and produced several waves worldwide. The third component is the perceived threat posed by the virus. These perceptions condition how strong governments’ and societies’ reactions are. In short, more infections, more fear, and a longer period of “shock” all serve to increase the effects on stability and conflict.
- 3) The perceived threat of the virus, the experiences of countries that were hit earlier by the virus, and the self-interest of decision-makers will shape *government responses* to the virus. The immediate responses will mainly refer to the health sector using conventional and widely applied coercive measures, such as social distancing, quarantine for infected or high-risk persons, and local or nationwide shutdowns. These restrictions have varied, though in terms of sub-Saharan African countries on the whole, they were more stringent than elsewhere and government reactions were also faster (see above). However, some countries, such as Burundi and Tanzania, have imposed very few restrictions, while many others have implemented strict shutdowns. With the stringency of the responses, the consequences also vary. Vaccination must be part of the model, too. However, at the time of writing, vaccination has not yet substantially occurred in the region.
- 4) Beyond health-related effects, more drastic measures taken by governments to contain the spread have strong social, economic, and political consequences. Socially, reducing contacts may affect well-being, with consequences for interpersonal relations, not least domestic violence. Psychological effects might also make people more vulnerable to aggressive reactions and thus – although the extent and exact mechanisms remain unknown – violent conflict. In economic terms, shutdowns heavily impair economic productivity through various channels at the domestic level. Economic consequences will be harsher if governments cannot pay compensation wages to those who have lost their jobs or businesses during lockdowns. The global nature of the pandemic may reduce foreign investment, exports of natural resources, and development assistance (Vaitilingam, 2020), although development agencies such as the International Monetary Fund (IMF) were quick to come in with assistance (IMF 2021). The economy can heighten conflict risk through many mechanisms, and low levels of development are one of the most robust correlates of conflict risk (Hegre & Sambanis, 2006; Dixon, 2009; Mach et al., 2019), not least as an “economic shock” (Bazzi & Blattman, 2014). It is difficult to know, however, which of the several economic mecha-

nisms will play out. Shrinking wealth increases poverty and puts people out of jobs, making them vulnerable to radical ideologies and increasing the attractiveness of joining a violent rebellion. A struggling economy reduces the capacity of the state to distribute public goods, which may decrease competition between relevant groups. Reduced state capacity also affects the security sector's ability to effectively police. The immediate effect of shutdowns, however, is more political repression, and some governments might use the crisis to increase control over the population for narrow political ambitions; indeed, some "pandemic backsliding" in terms of democracy has already occurred (Alizada et al., 2021). New violent conflicts can emerge if people stand up to these measures – a phenomenon already observed in the early stages of the pandemic south of the Sahara. However, the number and intensity of these immediate conflicts will probably be limited. In times of imminent crisis and threat, people tend to rally around the flag, and fears of infections may trump political concerns.

- 5) Once the imminent threat seems to be over or controllable – or people increasingly begin suffering fatigue vis-à-vis pandemic-related restrictions – and the magnitude of negative economic and political effects becomes more visible, the rally-around-the-flag effect diminishes. Now, people will be more concerned with their well-being, economic and otherwise, and this is when the competition over access and distribution of resources will intensify. The political competition is likely to form along existing cleavages between government and opposition, and/or between different identity groups. Especially if inequalities and grievances already exist, these cleavages may further deepen. Yet, it will also depend on how the *discourse* develops around who is to blame for the effects of the crisis and related problems, such as public goods provision (see e.g., De Juan & Wegner 2019). If many people die, the economy is hit hard, or political repression increases, the government will be the first target of public wrath, especially if trust in the government was already low before the pandemic (Hartwig and Hoffmann, 2021). The government, in turn, has incentives to blame others, especially if it lacks the means to appease anger by materially assisting those in need. Scapegoats could be foreign countries or their citizens, such as Chinese and Europeans – the latter as the importers of infection, the former connected to the origin of the disease – or specific rival ethnic or other groups, especially minorities. Special individuals could be declared "witches" (Miguel, 2005), a classical and strongly gendered form of scapegoating. The discourse may also form between groups favouring tough measures and those favouring an easing of restrictions, a development witnessed in European countries – for instance, in the Netherlands, where shutdowns provoked major unrest in January 2021 (Henley, 2020). How the discourse develops – and this is not easy to predict or measure – will determine the type of conflict: meaning, along what lines or "camps" the conflict forms.
- 6) Though conflict may have formed, an eruption of large-scale violence has not (yet) occurred. Intuitively, we tend to look at the motivation of actors, but their *ability to mobilise*

vis-à-vis political conflict matters just as much. Groups with little capacity are unlikely to play a substantial role in conflicts. The main active actors will be those with a pre-existing capacity to mobilise. Capacity depends not only on the organisational resources of groups but also on the opportunity to mobilise provided by the overarching conditions. The effects of the crisis can both limit and increase the opportunity to mobilise. Fears of infections and shutdowns may limit the freedom of the opposition to mobilise in the short run. But economic downturns limit state capacity, and security forces may be less capable of containing rebellions. In ongoing conflicts where rebels are already organised, this effect can manifest early. Islamists in West Africa seem to have viewed the pandemic as an opportunity to step up attacks (see e.g., *Washington Times*, 2020; Norlen, 2020).

- 7) When actors have mobilised and conflicts – not (yet) violent ones, necessarily – have formed, the political system comes into play. The *capability of the political system to manage conflict peacefully* depends on whether and to what extent conflicts escalate into violence. Conflict management ability will depend on many specific features of the political system. For one, trust in the government will reduce anger. Regime type may matter. Fully democratic political systems can react peacefully to public discontent; people can remove governments without bloodshed, as famously stated by Karl Popper (1945: 121-122). It might be more difficult to deal with inter-communal conflicts, though, especially when the discourse blames minorities, such as migrants. Authoritarian regimes cannot channel discontent into free and fair elections, and they are likely to abuse the crisis to increase repression. More so than democracies, they will resort to scapegoating of minorities or foreign countries. The regime type most at risk, however, might be so-called hybrid regimes, which are neither fully democratic nor fully authoritarian.<sup>6</sup> We should not view the regime types statically, though: the crisis itself can change the character of a system. We might also consider informal ways of conflict management. Countries richly endowed with natural resources might resort to buying off potential dissent, through clientelism or even outright corruption. Last, international conflict management counts as well. While fears of escalation might boost such efforts, the pandemic in Western countries might reduce their attention to foreign or African affairs (e.g., Haer & Demarest, 2020).

### *Hypotheses*

In the following, we formulate hypotheses on how the virus may have affected the conflict dynamics one year after in sub-Saharan Africa.<sup>7</sup> Our first hypothesis refers to the overall effect of COVID-19. Based on the model outlined above, we must expect a limited effect. We assume

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6 These hybrid regimes might be less able to channel discontent into electoral change but also less able to effectively repress dissatisfaction. Empirical analyses find these regimes to be most at risk for armed conflict (Hegre et al., 2001). Hybrid regimes are the most frequent form of government in Africa.

7 For longer periods, data is not yet available.

that immediate, strong, large-scale violent conflicts caused directly by the pandemic are unlikely, but some existing tensions might have been aggravated through the pandemic. Like the virus, political consequences have an incubation period, one counted not in days but months, if not years:

*H1: After one year, the pandemic will have only moderately increased violence.*

As violence has indeed substantially increased – as we mentioned in the introduction and will substantiate below – we need to find out why. The most obvious suspect is pre-pandemic fragility, especially factors such as level of development, state of the health sector, previous conflict, and political system. For other steps in the model, it might be too early to find an effect. We assume:

*H2: The fragility before the crisis will mainly account for the increase in violence.*

As mechanisms that link the pandemic to new high-level violence will take time to develop, we need to distinguish between types of violence (see Basedau & Deitch, 2020). We expect that organised forms will be less affected by the virus, as the incubation time will be too short. In turn, rather unorganised COVID-19 unrest will be more directly affected, not least through the strict government reactions. We expect:

*H3: Effects of COVID-19 depend on the type of conflict, especially the degree of organisation.*

- a) The pandemic will affect new large-scale organised violence only moderately.
- b) Less organised types of violence such as “COVID-19 unrest,” related government repression, or other, more spontaneous forms will be more substantially affected, mostly depending on the stringency of government responses.

#### **4 Empirical Strategy: A Multi-Method Approach**

If COVID-19 has intensified violent conflict we should find an *increase* after the beginning of the pandemic in December 2019 compared to before.<sup>8</sup> One may argue the “virus shock” forms the conditions of a natural experiment – obviously, we can rule out the pandemic having affected violence before. This increase should be observable at several levels, meaning, for the region, but also for country cases. The rise in violence should vary according to COVID-19 numbers. However, we need to control for other factors that may have caused the increase independently of (or in conjunction with) COVID-19. Our model predicts that the increase will very much depend on previous fragility, as well as ensuing dynamics. We, therefore, employ a multivariate regression analysis that tries to capture most of the variables of our model for

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<sup>8</sup> The first cases in Africa were only reported in February 2020. However, international economic effects and restrictions by African governments were already occurring at the beginning of 2020.

the year 2020 with the change in violence as the dependent variable (both annually and monthly). However, statistical analyses depend on the availability and reliability of data and are not well devised to capture mechanisms, especially more complex ones. We hence add qualitative assessments by country experts on the impact of the pandemic on conflict intensity, using new data from the Bertelsmann Transformation Index (BTI). Finally, we provide insight on selected, pertinent country cases. We start our multi-method comparison with descriptive information on both the increase of violence and how hard the virus hit the region and its countries.

#### 4.1 Descriptive Findings: Dynamics of Violence and the Severity of the Pandemic

Violent conflict can be measured in various ways. The most detailed and almost “live” information is provided by the Armed Conflict Location and Event Data Project (ACLED), which reports several types of violent events as well as the number of related fatalities in a highly disaggregated manner, in terms of both time and space (Raleigh et al., 2010). At the time of analysis in April and May 2021, the latest available numbers refer to early April 2021.<sup>9</sup> As our period of investigation is mostly the year 2020 – given the availability of data on other indicators – we report data through 31 December 2020.<sup>10</sup>

The numbers underscore a substantial increase in conflict in 2020 compared to the period before. ACLED counted more than 35,000 fatalities in 2020, which constitutes an increase of more than 40 per cent compared to the previous five years’ average (2015 to 2019), where there was quite limited variation between the years.<sup>11</sup> A similar picture emerges for events, of which many are less intense. While between 2015 and 2019, 13,000 events per year were observed on average, the number stands at 21,000 for 2020, representing a more than 60 per cent increase. Unlike for fatality numbers, there was already an upward trend in violent events from 2015 to 2019, though it is less steep than from 2019 to 2020.<sup>12</sup> The increase in 2020, however, varies depending on type of violence and country. Six countries are responsible for approximately 80 per cent of the total increase of 10,000 fatalities. In Ethiopia, approximately 2,000 more deaths were counted, mainly caused by the escalation of the crisis with the federal state of Tigray. In the DRC and Nigeria, multiple conflicts also account for nearly 2,000 additional deaths each. In both countries, jihadist groups are active – Boko Haram in Nigeria, and the Allied Democratic Forces (ADF) in the DRC, a group originating in Uganda that pledged alle-

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9 The findings of the Uppsala Conflict Data Program (UCDP) were first made available in early July (Pettersson et al. 2021). They show an increase of events and fatalities in Africa, but not in other regions. They, however, also observe that the worldwide downward trend of the previous five years experienced a turnaround.

10 Numbers are based on news reporting and might be subject to a related bias, but ACLED certainly constitutes the most advanced source for our purposes.

11 2015: 27,364; 2016: 22,501; 2017: 26,492; 2018: 24,986; 2019: 25,267.

12 2015: 11,332; 2016: 11,844; 2017: 12,816; 2018: 14,483; 2019: 15,924; 2020: 21,674.

giance to the so-called Islamic State (IS) in 2019. Jihadist and other violence produced approximately 1,000 more victims in Mali and Mozambique, the latter the latest theatre of insurgencies with affiliates of Al-Qaida and IS south of the Sahara.<sup>13</sup>

For types of conflicts, we grouped together more organised forms such as battles or violence against civilians. These types are responsible both for the bulk of total fatalities and for their increase. Other types such as spontaneous violence (for example, riots) have also increased violence, though much less. A new type of conflict deserves special mention: ACLED has specifically collected data on “COVID-19 unrest,” meaning, events caused directly by the pandemic and its consequences:<sup>14</sup> Such events mostly include protests and riots against government restrictions but, on rare occasions, also battles. “COVID-19 unrest” was relatively rare. ACLED counts 1,086 incidents in 2020, a fraction of the total 21,000 events cited above. In terms of fatalities, 226 persons were killed, representing less than 1 per cent of the more than 35,000 deaths in 2020. The indicator “COVID-19 unrest” itself arguably betrays a direct effect of the pandemic, but in terms of overall conflict increase, this effect is small. Of course, we cannot rule out that indirect influences of COVID-19 contributed to the overall increase.

Measuring the scope of the pandemic in Africa is more difficult than one may assume. Statisticians have demanded better data and interpretation (e.g., Royal Statistical Society 2021). Generally, we face problems regarding the availability of reliable and valid data, the multidimensionality of the pandemic’s health-related effects, and the comparability of the data. While in some cases, especially in Africa, there is no data at all (Maeda & Nkengason, 2021), we are also dealing with an unknown number of unreported cases. This dark figure is not necessarily the same across time and space, as it depends on the testing strategy. In some countries, tests are more frequent, seemingly increasing incidence and prevalence compared to other countries. It also depends on who is tested: symptom-based strategies will produce higher rates than representative samples. Countries differ hugely and sometimes change their strategies, further reducing comparability. Politics complicate matters, with some governments hiding the actual numbers of infections and deaths to downplay or even to exaggerate the severity of the health crisis. For example, Burundi and Tanzania have reported almost no numbers or declared the virus to be “defeated” and stopped reporting.<sup>15</sup>

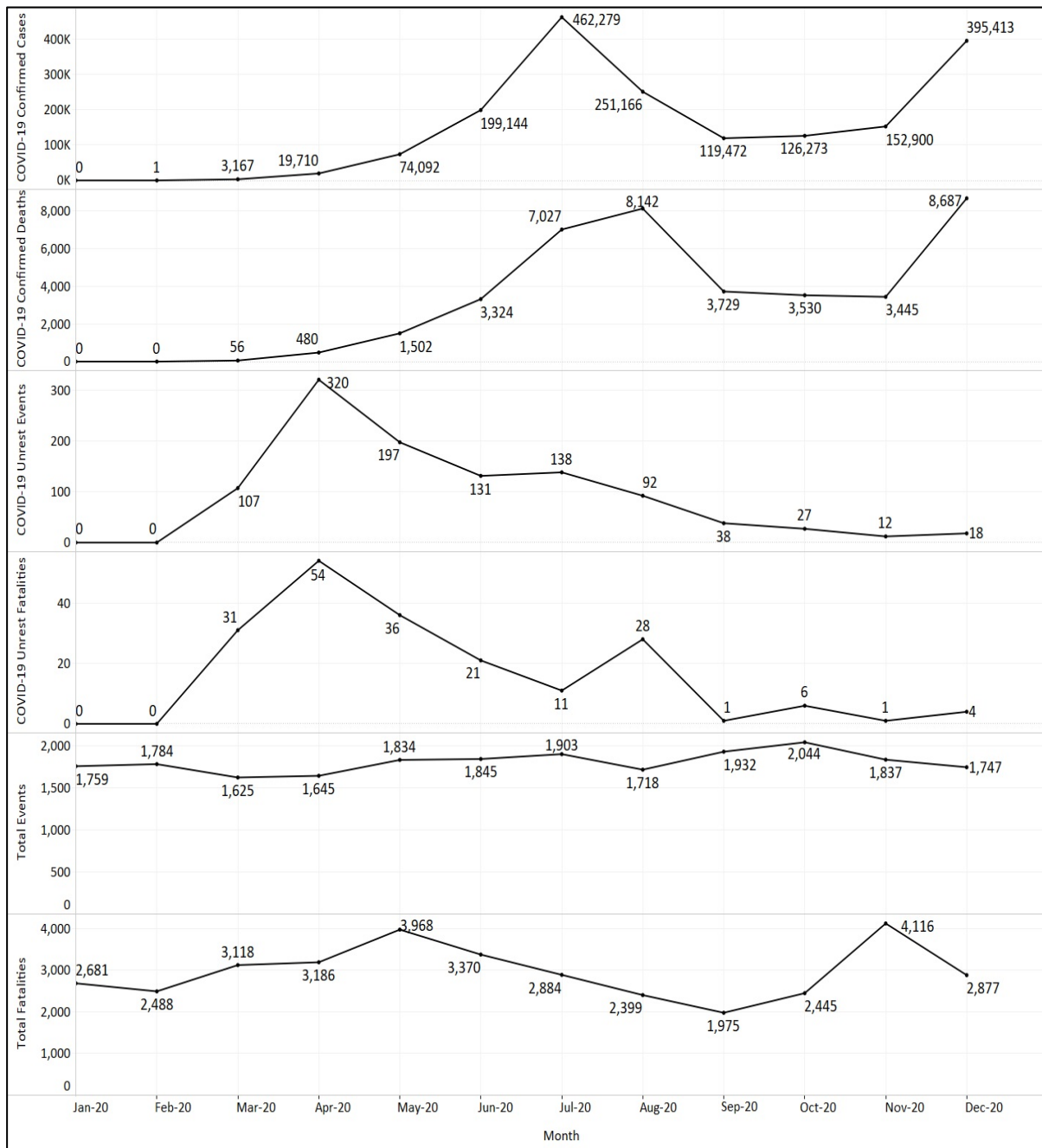
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13 Numbers since January 2021 and July 2021 suggest that conflict prevalence and intensity has stabilised at the high level of 2020.

14 ACLED counts as COVID-19 unrest only “when an incident report makes obvious that the coronavirus motivated the event. [...] Events that are directly related to the pandemic include things such as: the targeting of healthcare workers responding to the coronavirus; violent mobs attacking individuals due to fears of their alleged links to the coronavirus (e.g. Muslims in India; foreigners in Africa; etc.); demonstrations against governance decisions made in response to the coronavirus” (ACLED, 2021).

15 Also, the effects of the pandemic cannot be captured by one single indicator. We must think of the pandemic as a chain that starts with infections that may lead to illness and possibly death or recovery. For each step in the chain, we have different indicators, and none of them alone can represent the full picture.



**Figure 2. COVID-19 and Dynamics of Violence in Sub-Saharan Africa, 2020**

Source: Authors' compilation based on data from ACLED and Johns Hopkins University.

While some, arguably more sophisticated measures are not available in sufficient numbers (for instance, hospitalisation rates, positive-test ratios) or not at all (for example, excess mortality), we have data on confirmed cases and deaths with or because of COVID-19 (e.g., Roser et al., 2020). As the numbers reveal, Africa, south of the Sahara has been affected less viciously than other world regions such as the Americas, Europe, Latin America, and South Asia. By the end of June 2021, official sources reported approximately 3.8 million cases in sub-Saharan Africa, which compares favourably to the 181 million worldwide, representing a disproportionately low number given that sub-Saharan Africans comprise one-seventh of the world population.

The same holds true for the confirmed deaths. While approximately 3.9 million people had perished in the pandemic worldwide, only approximately 140,000 Africans fell victim to the pandemic in this period (including North Africa). South Africa has a highly disproportionate share and has reported around half of the infected and 65 per cent of the deaths in sub-Saharan Africa. Other countries, such as Burundi and Liberia, show total numbers that resemble rather favourable one-day records in Western countries and have stood under 2,000 confirmed infections and 100 deaths for the whole period from early 2020 until June 2021.<sup>16</sup>

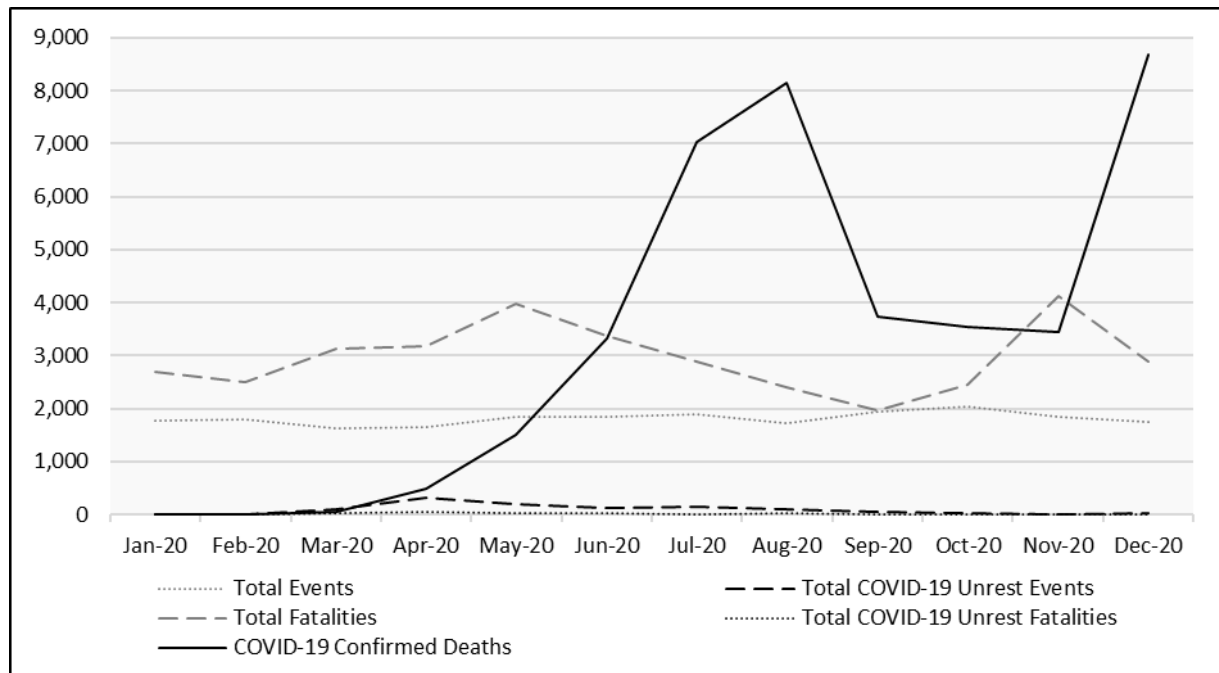
Low numbers are likely due to massive underreporting (e.g., Maeda & Nkengasong, 2021). However, there is reason to believe that the numbers in Africa are indeed lower than elsewhere (e.g., *ibid.*; Soy, 2020): The population in most sub-Saharan countries is relatively young and therefore less likely to get seriously ill. Other viruses may have produced “cross-immunity” and make people less infectious. The virus also hit Africa later than other regions and many governments were able to react much more swiftly and decisively than elsewhere. In fact, most governments had already reacted by putting in place restrictions at the beginning of 2020.

As our data reveal, the average time before the initial government responses was remarkably short. On average, the first response was 31 days prior to the first confirmed case (see Appendix, Table 1C). Likewise, the measures were relatively strict. The *Oxford Covid-19 Government Response Tracker* (Hale et al., 2021) measures the stringency regarding to what extent social contacts should be minimised, but does not capture actual compliance. According to the Oxford Tracker, the average stringency stands at almost 60 out of a possible maximum of 100, and the highest stringency (see Appendix, Table 1B), usually at the beginning, is almost 80 out of 100. Generally, many efforts have been made around the world to measure government responses.

When we look at the COVID-19 trends and the conflict trends we first see that the curves of confirmed cases of infections and death are largely parallel (Figure 2; correlation > 0.90). When comparing the COVID-19 and the conflict curves, however (Figures 2 & 3), it becomes obvious that they do not follow the same trend. This does not disprove a relationship, as we do not necessarily expect simple direct and linear relationships. As theorised, we rather expect the causal mechanisms to play out indirectly and with a longer incubation period. We assumed only a more direct effect for COVID-19 unrest and, indeed, it peaks several weeks before the first wave, when restrictions were imposed.

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16 Interestingly, in Burundi rumours persist that former president Pierre Nkurunziza died from the virus in June 2020. The same is rumoured in neighbouring Tanzania. President John Magufuli had claimed to have defeated the virus with God’s help. In March 2021, he reportedly died from a heart attack at the age of 61.

**Figure 3. Comparison of COVID-19 Deaths and Conflict Dynamics**

Source: Authors' compilation based on ACLED and *Our World in Data*.

#### 4.2 Bivariate Correlations

In this step, we use differences between countries and calculate various bivariate correlations (Pearson's R-squared) with the increase of fatalities in 2020 compared to the period between 2015 and 2019, the former representing the first year for which ACLED provides data. We use total numbers for 2020 subtracted by the mean of fatalities per annum between 2015 and 2019. As discussed above, it might seem reasonable to take February or March as the start of the analysis, when the first corona cases were recorded in sub-Saharan Africa. However, we use the full year 2020, as government restrictions were already imposed in many countries in January.

We employ independent variables that represent the different steps in our escalation model. Fragility is measured through the following variables: For previous political violence, we look at the period from 2015 to 2019 (ACLED) and whether in 2019 jihadist armed groups were active in the country according to UCDP data (Pettersson & Öberg, 2020). Jihadist violence has been affecting ever greater parts of the region in recent years and might form a strong cause of further escalation (ibid.; Norlen, 2020). Economic fragility is operationalised through *GDP per capita* taken from the *World Development Indicators*, and the robustness of the health sector through the *UN Global Health Index*. The political system is captured by two variables taken from the *Varieties of Democracy* Project (Pemstein et al., 2021). As a standard measure, we included a measure for *liberal democracy*. To account for the legitimacy of the government we

added *political corruption*, which might serve as a proxy for both the specific logic of neopatrimonialism and the trust – or lack thereof – in the government.<sup>17</sup>

The extent of the pandemic is measured by the number of confirmed deaths with a COVID-19 infection in 2020 (Roser et al., 2020). An alternative would have been the number of registered infections in the same period. However, this number highly correlates with the number of deaths (approximately 0.90) and it is likely that death numbers are better documented than infection numbers.<sup>18</sup> We use two variables to measure government responses. Taken from *Our World in Data* (Roser et al., 2020), we calculated the time difference between the first response by the government and the first recorded case. This *time reaction* by governments (see Appendix 1C) was generally swift, on average 31 days before the first infection was registered, coming particularly early in Botswana (89 days before), Lesotho (70), and Uganda (61).

For subsequent steps, we used data from the new, still unpublished round of the Bertelsmann Transformation Index (BTI). *Economic output strength* represents the overall economic performance in terms of growth, consumer price inflation, and other pertinent indicators as of late January 2021 and proxies the economic effects of the pandemic and the government reactions. Likewise, *Cleavage management* captures the governments' success in managing conflicts between identity groups during the period from 2019 to 2021, thus serving as a proxy for the ability to deal with pandemic-related social conflicts. Additionally, we used V-Dem's *Freedom of movement* variable, which assesses to what extent government responses have restricted the ability to move – which may affect political actors' ability to effectively mobilise. Finally, we included population size, which is not only a standard determinant of violent conflicts (e.g., Hegre & Sambanis, 2006) but may also represent the general opportunity for violence.<sup>19</sup> In more populated states, violence is more likely to happen at larger scales. As a standard procedure, we logged population size as well as GDP p.c. and COVID-19 deaths to account for skewed distribution. As mentioned above, South Africa recorded approximately 59 and 65 per cent of the confirmed cases of infection and deaths, respectively, in sub-Saharan Africa.

What do we find? As shown in Table 1, the total change in fatalities in 2020 versus the previous period from 2015 to 2019 is mainly correlated to population size and previously active jihadist groups. COVID-19 deaths are also significantly correlated to the increase, albeit weakly. Other variables do not produce significant relationships. This picture changes when we look at types of conflict, starting in column four. Organised conflicts behave largely identically to a total increase in violence, while for unorganised violence COVID-19 deaths is additionally significant. For state violence against civilians – or repression – COVID-19 deaths does not seem to matter, yet time reaction and economic output are significant. For unorgan-

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17 Opinion polls on trust in the government do not cover a sufficient number of countries.

18 Alternative measures such as the rate of positive tests, hospitalisation rates, or excess mortality are not available in sufficient numbers, or at all (see methodological section).

19 As ethnic diversity is not a robust correlate of major conflict (Hegre & Sambanis, 2006), we did not use it.

ised peaceful protests, no variable proves significant at a bivariate level. This is in sharp contrast to COVID-19 unrest. Here we find that beyond previous fatalities, population size, and corona deaths, the robustness of the health sector also matters. Yet, it unexpectedly seems to increase more violence rather than reducing it. It is also noteworthy that variables related to the economy (GDP p.c.), the political system, and the intensity of government reactions, along with some post-pandemic steps in the model (cleavage management), are consistently insignificant.

**Table 1. Bivariate Correlations with Changes in Fatality Numbers, 2020 vs. 2015–2019**

	Sources	Total fatalities ACLED	Organised violence (battles, violence against civilians, etc.) ACLED	Unorganised violence (riots) ACLED	State repression (violence against civilians) ACLED	COVID-19 unrest ACLED	Unorganised peaceful protests ACLED
<b>Fragility</b>							
Fatalities mean 2015–2019	ACLED	.137	.130	.183	-.259†	.512**	.124
GDP p.c. (log)	World Bank	-.196	-.197	-.066	-.027	-.046	.124
Health index	UN	.162	.158	.237	.076	.425**	-.148
Liberal democracy	V-Dem	.048	.049	-.068	.182	-.078	.118
Political corruption	V-Dem	-.025	-.036	.232	-.117	.209	.167
Jihadist armed groups in 2021	UCDP	.433**	.424*	.280†	.485**	.384*	.154
<b>COVID-19 &amp; responses</b>							
COVID-19 deaths (log)	JHU	.290†	.283†	.348*	.032	.543**	-.174
Time reaction	Oxford-Tracker	.075	.076	-.048	.333*	-.109	.073
Stringency average	Oxford-Tracker	.046	.041	.212	-.233	.254	-.102
<b>Post-COVID-19 developments &amp; controls</b>							
Economic output strength 2019–2021	BTI	.252	.249	.196	.329*	.065	-.113
Freedom of movement	V-Dem	.006	.003	.113	-.264†	.046	-.076
Cleavage management	BTI	-.003	.002	-.067	.180	-.147	.085
Population size (log)	UN	.442**	.435**	.384*	.042	.684**	-.160

Notes: (a) N = 41.

\*\* Correlation is significant at the 0.01 level (two-tailed).

\* Correlation is significant at the 0.05 level (two-tailed).

† Correlation is significant at the 0.1 level (two-tailed).

These results are by and large confirmed when we look at the increase of events instead of fatalities (see Appendix 2).<sup>20</sup> One difference is that previous jihadist violent activity is less often significant, which may suggest that jihadist dynamics may mainly affect high-intensity violence, not so much all forms of conflict – of which many are mainly non-lethal. While we should not rely too much on bivariate correlations, results largely support our hypotheses: Yes, COVID-19 somewhat matters for conflict. However, measures of fragility are more important. The type of conflict seems to matter for the logic of the pandemic's effects.

### 4.3 Multivariate Analysis

Our next step is a multivariate regression of the relationship that simultaneously employs relevant variables, especially on fragility, the pandemic, and government reactions, in addition to subsequent developments. As the increase in violence measured by fatalities is a continuous variable, we employ linear regressions. Although the 43 mainland sub-Saharan countries almost represent the universe of cases, a low N does not allow for models with many variables. We also needed to avoid including independent variables that strongly intercorrelate (for example, confirmed COVID-19 cases and deaths). At the same time, we had to balance technical concerns with our theory and strived to include variables representing the main steps of our theoretical model. Finally, we considered the availability of data and the previous significance in bivariate correlations. Our resulting model includes four variables of fragility that capture various dimensions related to the previous violence, the economy, the health sector, and the political system. One variable measures the “virus shock,” COVID-19 deaths, and one government reaction, i.e., average stringency. To account for an opportunity in bigger countries, we additionally control for population size. Finally, we regress the increase in violence stepwise to assess the individual impact by various steps of our model, especially those we did not include in our model because of methodological concerns. This procedure is supplemented by various robustness checks, including monthly data.

Results in Table 2 confirm the overall results of our bivariate findings and our hypotheses. The pandemic somewhat matters for total increase, but fragility and population size are more important; findings vary according to the type of conflict. Yet, compared to bivariate correlations, major differences emerge. As expected by our model and the hypotheses, higher GDP per capita and a better-prepared health sector dampen the increase of violence. The latter finding also “overrules” the positive bivariate link between a better health index and more conflict in some instances. The perhaps most surprising result is that political corruption is significant but higher values reduce violence. A preliminary explanation could be that among fragile countries those governments that use corruption as a means to buy off potential rivals and rebels have a better chance of avoiding an increase in violence.

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<sup>20</sup> We also calculated correlations excluding outlier South Africa and including monthly data, when available (COVID-19 and stringency of responses only). Results (available upon request) remain largely unchanged.

**Table 2. Linear Regression of Change in Fatalities 2020 vs. 2015–2019**

	Model 1: Total (all forms)	Model 2: Organised violence (battles, etc.)	Model 3: Unorganised violence (riots)	Model 4: State repres- sion	Model 5: COVID-19 unrest	Model 6: Peaceful pro- tests
Fatalities	.208	.205	.005	-.412*	.339*	.234
mean 2015– 2019	(.104)	(.104)	(.004)	(.015)	(.001)	(.002)
GDP p.c. (log)	-.313†	-.320†	-.013	.001	.007	.316
	(351.998)	(350.803)	(15.054)	(50.409)	(3.332)	(7.904)
Health index	-.511*	-.518*	.004	-.100	.213	.189
	(20.672)	(20.602)	(.884)	(2.960)	(.196)	(.464)
Political corruption	-.307†	-.323†	.228	.015	.079	.284
	(560.709)	(558.805)	(23.980)	(80.299)	(5.308)	(12.590)
COVID-19 deaths (log)	.464*	.466*	.179	.177	.039	-.288
	(230.607)	(229.824)	(9.862)	(33.025)	(2.183)	(5.178)
Stringency average	.023	.021	.164	-.249	.252*	-.164
	(7.654)	(7.628)	(.327)	(1.096)	(.072)	(.172)
Population (log)	.410*	.407*	.255	.160	.414*	-.228
	(272.828)	(271.901)	(11.668)	(39.071)	(2.583)	(6.126)
Observations	43	43	43	43	43	43
R <sup>2</sup>	.459	.456	.259	.182	.680	.194

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

Regarding the type of conflict, it seems that only organised forms of violence are affected by the pandemic, but not others. For “COVID-19 unrest,” stringency turns significant, which fits theoretical expectations in hypothesis 3. Restrictions have frequently directly led to protests and riots as already shown by the trend analysis in the previous section. Other forms of violence such as state repression – as well as peaceful protests – are poorly explained by the model. Otherwise, the model shows good explanatory power. Almost 50 per cent of the variance is explained for total and organised violence. For “COVID-19 unrest” it stands at close to 70 per cent.

Robustness checks with alternative dependent variables largely reproduce these results (see Appendix 3). When we look at total fatalities regardless (Table 3A in Appendix 3), which do not directly capture change compared to before the pandemic, the only difference is that previous violence is almost significant across the board.<sup>21</sup> Interestingly, the fit of the models

21 Please note that “COVID-19 unrest” total numbers are the same as in the increase models. Logically, there were no such events in 2019.

for total and organised violence is extremely high, explaining almost 90 per cent of the variance.<sup>22</sup> Using the increase of events and not fatalities (Table 3B in Appendix 3) also largely confirms the findings from the preferred model, although fewer variables are significant. However, both fragility and COVID-19 matter, and the results vary according to the type of conflict, with total and organised violence being most affected by the pandemic. COVID-19 unrest (Table 3D in Appendix 3), unlike for bivariate correlations, is significantly connected to the stringency of government responses but not COVID-19 deaths. However, GDP p.c., the health sector, and political corruption are largely insignificant, which should caution us from making too far-reaching conclusions from the main model, especially regarding political corruption. Unexpectedly, COVID-19 unrest events (Table 3B) are positively connected to a better health sector.<sup>23</sup> The model with total events (see Table 3C in Appendix 3) shows the least significant results, although the explained variance is over 75 per cent ( $R$ -squared = .767). However, both fragility and COVID-19 deaths are important for total and organised violence.

Table 3 reports the results of regressions per the steps of our theoretical model. This way we can include most of the variables of the theoretical model. The analysis reveals that fragility, including population size, accounts for the best explanation of the dynamics of violence. When also including jihadist violence in 2019, we have an even better explanation than for the full model discussed above. Among the other steps, only COVID-19 deaths count. Including all the variables in a full model, the explained variance stands at 74 per cent. Additional stepwise analysis for total fatalities and “COVID-19 unrest” fatalities confirm these findings. The  $R$ -squared for total fatalities even stands at more than 0.90 (see Appendix 3).

To account for the low number of cases in the country-based models, we added a monthly analysis for 2020 ( $N = 516$ ), regressing the total fatalities per month, using mixed models with random and fixed effects. “Mixed” refers to the control variables being mostly static for each country, as more fine-grained data was not available except for pandemic and violence data. We also regressed change in events and engaged in a stepwise analysis. Results are shown in the Appendix (Tables 3E to 3I). Many findings are replicated, especially the strong role of fragility for total violence. We can also by and large confirm that COVID-19 unrest depends on government reactions, not the pandemic itself – although it remains unclear whether this is due to how fast government reacted or how strict reactions were. Other results do not hold. Most notably, COVID-19 is no longer significant for total violence, casting doubt on the findings of the sample based on country-years.<sup>24</sup>

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22 We did not put these models at the centre of the analysis, as they indicate total numbers and not the change, which is what we want to explain.

23 A preliminary explanation could be that better health sectors detect more numbers and then lead to stricter government reactions that then increase COVID-19 unrest.

24 We also ran regressions excluding the outlier, South Africa. Results remain largely unchanged (see Appendix 5).



**Table 3. Stepwise Linear Regressions for Change in Fatalities, 2020 vs. 2015–2019**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Fatalities	.152						.137
mean 2015–2019	(.095)						(.108)
GDP p.c. (log)	-.074						-.258
	(249.969)						(340.007)
Health index	-.316†						-.503*
	(15.309)						(19.532)
Political corruption	-.280†						-.394*
	(479.756)						(566.234)
Population (log)	.373†						.267
	(239.562)						(273.524)
Jihadist	.468**						.391*
	(244.738)						(275.776)
COVID-19 deaths (log)		.290†					.436†
		(174.566)					(231.246)
Stringency average			.067				.055
			(9.585)				(8.473)
Time reaction			.091				.033
			(5.442)				(4.201)
Output strength				.252			.127
				(72.884)			(77.261)
Freedom of movement					.006		-.005
					(742.995)		(684.764)
Cleavage management						-.003	-.131
						(60.770)	(62.617)
Observations	43	43	43	43	43	43	43
R <sup>2</sup>	.517	.084	.010	.063	.000	.000	.607

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

Summing up, the multivariate analysis largely confirms the previous findings and our hypotheses. The pandemic matters, but its influence is limited and the effects of pre-pandemic fragility are substantially stronger. Evidence also suggests that previous jihadist violence is one of the major drivers of dynamics of violence. Types of violence are not equally affected by corona – “COVID-19 unrest” is particularly connected to the pandemic. Some new questions have emerged. For instance, political corruption seems to rather decrease violence. However, we must caution against an overinterpretation of these results, given the low number of cases in

most models and the lack of accurate data on the pandemic and post-pandemic dynamics. We, therefore, turn to the expert views, especially regarding the mechanisms at play.

#### 4.4 Qualitative Expert Assessments

Expert assessments can achieve what numbers often cannot. Being contextually sensitive allows for an organic judgement on whether, to what extent, and exactly how the pandemic and government responses may have affected conflict intensity.<sup>25</sup> In this section, we use new, unpublished data from the Bertelsmann Transformation Index (BTI) and follow this up with an illustrative spotlight on each of three pertinent country cases. Following both qualitative assessments, we relate them to our model and the hypotheses.

For the new round, to be published in early 2022, experts have assessed the state of political and economic information, in addition to governance quality, according to 49 indicators for some 130 transformation countries. The review period covers from February 2019 to January 2021. Experts provide not only quantitative ratings but also comprehensive reports of around 10,000 to 15,000 words per country.

As in many other ongoing data collection projects, the BTI round includes questions capturing the influence of COVID-19. With generous approval from the BTI central authorities, we are able to use the indicator “Conflict Intensity” (13.3), for which experts assess the answer to the question, “How serious are social, ethnic and religious conflicts?”<sup>26</sup> Additionally, there is an explicit guiding question regarding corona: “Does COVID-19 have an effect on the confrontational nature of politics, the mobilisation along existing cleavages and violent confrontations?” The experts provide a concise text and assess the severity of conflict intensity on a scale from 1 to 10 (10 being the most severe) on four levels.<sup>27</sup> As for all other indicators, the related expert assessments were reviewed by country experts and regional coordinators. Raw data were further reviewed by all regional coordinators and the BTI board, and they were interregionally calibrated. The data used is in a consolidated but not yet final state.

We carefully read all entries for the 45 sub-Saharan<sup>28</sup> cases and cross-checked them with news reports and academic publications. We first observed that experts do not mention the

25 They might, however, be highly subjective or otherwise biased (see e.g., Tetlock 2017; Hegre et al. 2019).

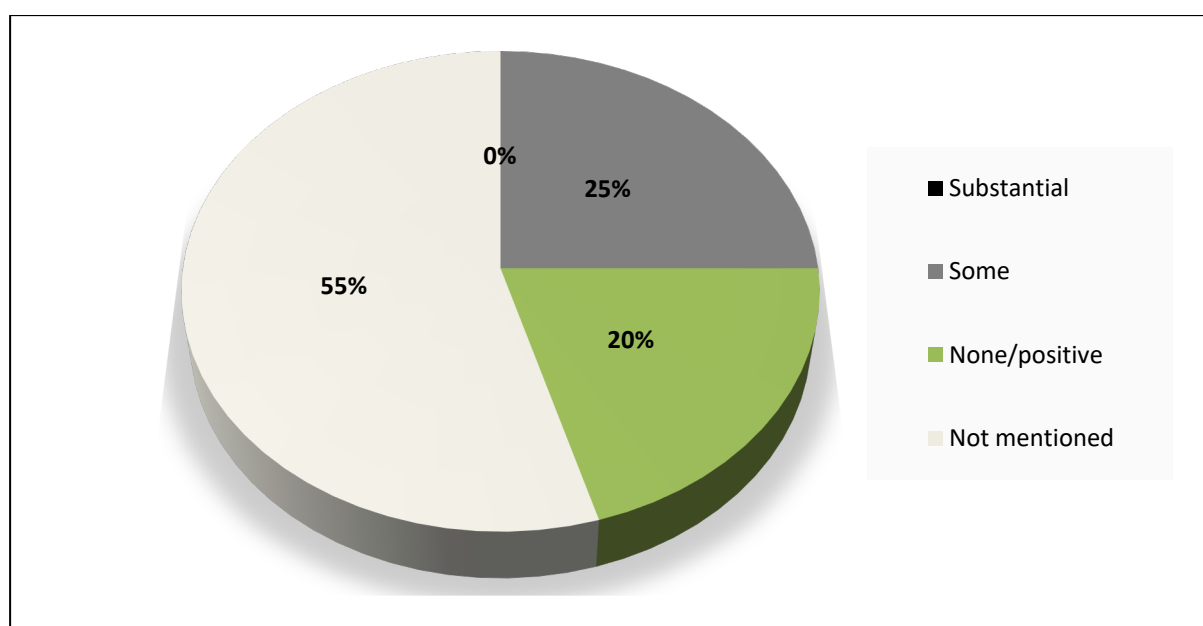
26 The description reads: “Indicators of conflict intensity include the following: the confrontational nature of politics; the polarisation and split of society along one or several cleavages; the mobilisation of large groups of the population; the use and spread of violence.”

27 Scores of 9 and 10 indicate that there “is civil war or a widespread violent conflict based on social, ethnic or religious differences.” Scores of 6 to 8 indicate the presence of “violent incidents. Mobilised groups and protest movements dominate politics. Society and the political elite are deeply split into social classes, ethnic or religious communities.” Scores of 3 to 5 are given when “There are only few violent incidents. Radical political actors have limited success in mobilising along existing cleavages. Society and the political elite, however, are divided along social, ethnic or religious lines.” When “There are no violent incidents based on social, ethnic or religious differences [...]” reviewers assign scores of 2 or 1.

28 Excluding four smaller, island states: Cape Verde, Seychelles, São Tomé e Príncipe, and the Comoros.

pandemic in many cases (see Figure 3). Apparently, experts did not identify any relationship, even if one is debatable in cases with strong escalation, such as Ethiopia (see below). However, in the remaining cases, experts explicitly commented on the role of the pandemic. In 11 countries, a severe effect on conflict intensity was identified, which, however corresponded to an increase of the score in conflict intensity in only three cases: Namibia, Niger, and Zimbabwe (see Table 4A in the Appendix).

**Figure 3. BTI Expert Assessments on Effects of the Pandemic on Conflict Intensity in Africa**



*Source:* Authors' compilation based on preliminary BTI findings.

Mostly, experts refer to the protests and riots against lockdowns and other restrictive measures. Such cases include Chad, Lesotho, Madagascar, Namibia, Niger, Sierra Leone, and Zimbabwe. In Nigeria, during the first wave of the pandemic, the government announced a nationwide lockdown. The BTI expert asserts that “more citizens died from gunshot wounds mostly inflicted by government security forces than from the virus” (see also Khalid, 2020). In Congo-Brazzaville, the government employed significant force in some instances to suppress protests related to COVID-19, particularly in the aftermath of the death of a young woman in gendarmerie custody, but these have not resulted in significant outbreaks of violence. This report also mentions that the oil revenue on which the country largely depends plummeted, especially during the first wave of the pandemic. In other cases, generic assessments are made. In Kenya, “COVID-19 has exposed ethnic and racial discrimination, prejudices and weaknesses, which have increased against ethnic and racial minority groups with the spread of the virus in Kenya,” showing the mechanism of rising tension between identity groups and the threat of scapegoating of minorities. Discourse may also turn more hostile and authoritarian. For Eswatini – the absolute monarchy formerly known as Swaziland (TAMFKAS) – the report

states that during the pandemic “it was even difficult and dangerous to express critique on the way government responded to the pandemic.”<sup>29</sup>

In some cases, it is explicitly mentioned that there has been no effect on conflict. In the CAR, the expert observes strong economic effects for a resource-dependent economy but explicitly rules out an effect on the recent escalation. In other cases, positive effects are mentioned. In Cameroon, the rebels in Ambazonia, the Anglophone region of the country, announced a ceasefire, justifying it with the pandemic (BBC News, 2020). This ceasefire proved short-lived, however. In Senegal, the government made an exceptional effort to bring stakeholders together to react to the pandemic in a consensual manner.<sup>30</sup>

#### 4.5 Spotlights on Ethiopia, Mali, and South Africa

We selected three cases that may deserve more elaborate illustration because they present “most likely cases” of a connection between the pandemic and conflict: They have either seen a strong increase in violence or reported an exceptionally high number of infections and deaths. *Ethiopia* saw a dramatic escalation when its Nobel Peace Prize-winning prime minister, Abiy Ahmed, postponed the general elections because of the pandemic (e.g., de Waal, 2021). One of the federal states, Tigray, then declared that Ahmed had lost his democratic legitimacy and prepared regional elections. As Tigray did not respond to Ahmed’s call to accept his authority, clashes erupted and federal troops invaded Tigray, leading to a huge number of victims, apparently including many killings of civilians (ibid.). One might conclude that the pandemic was a direct trigger of a massive escalation. However, the crisis would certainly not have occurred if there was no deep conflict between Ahmed and the Tigray region before. Ahmed’s election as prime minister in 2018 strongly altered the power balance. In 2019 the Tigray People’s Liberation Front (TPLF) refused to join Ahmed’s newly formed nationwide Prosperity Party, which entailed the simultaneous dissolution of the hitherto dominating party, the Ethiopian People’s Revolutionary Democratic Front (EPRDF), which was dominated for decades by the TPLF.<sup>31</sup> Some experts do not describe an impact by the pandemic.<sup>32</sup> In any case, Ethiopia shows that specific reactions to the pandemic may have put a spark to the powder keg that might have exploded regardless. It remains difficult to determine counterfactually what would have happened without the pandemic. It seems reasonable, however, to argue that without the previous conflict, an escalation would have been very unlikely.

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29 We do not consider recent protests against the absolute monarchy here, though they may have been fuelled by the pandemic, at least partially.

30 Here, too, unrest emerged after the period under investigation.

31 See also the Deutsche Welle website for a timeline of the crisis: <https://www.dw.com/en/ethiopia-a-timeline-of-the-tigray-crisis/a-55632181>.

32 This refers to both the BTI report, which does not mention it, and a personal conversation with Nicole Hirt, a renowned expert on Ethiopia.

*Mali* has seen growing instability since 2012, when a renewed Tuareg insurgency took on a jihadist flavour. Jihadist and more secular rebels occupied half of the country before they were pushed back by the French-led Opération Serval in early 2013 (e.g., Eizenga 2019). The ensuing “Opération Barkhane” and international peacekeeping initially seemed to have stabilised the country. However, in recent years, violence has resurged and spilled over to neighbouring countries, such as Burkina Faso and Niger. To make things worse, jihadist violence has been mixing increasingly with intercommunal clashes. The Fulani – locally known as Peulh – have been accused of cooperating with militant Islamists (Benjaminsen & Ba, 2019). Several clashes and counterattacks, mostly involving Fulani, across the three countries have left hundreds dead. Observers of the situation in Mali and the wider Sahel rarely mention COVID-19 as a source, although Islamists have declared the virus a “gift from god” that might further weaken the struggling government forces and their international allies (e.g., Norlen 2020; Washington Times, 2020). Yet, COVID-19 numbers have been extremely low and there is no directly observable impact on conflict dynamics. The protests that led to the military coup in August 2020 were unrelated to the pandemic but entirely connected to strong dissatisfaction with the government’s record, not least regarding security. As the security situation worsens, dissatisfaction with the French-led intervention is growing. International observers seem increasingly frustrated. Many observers believe that the war against jihadists cannot be won. France has already announced a partial retreat. Here, COVID-19 may come into play: The health crisis in Europe has shifted priorities away from external intervention (e.g., Hear & Demarest 2020), and a sudden withdrawal from Mali may facilitate jihadist offensives, Afghanistan being a cautionary tale here. However, again, a substantial, direct effect on escalation cannot be observed.

*South Africa*, as mentioned above, has reported the highest share of infections and deaths in relation to COVID-19. If the pandemic is a major (and quick) driver of violence, it should have affected South Africa substantially. Indeed, the numbers do show an increase. Fatalities and conflict events have increased by approximately 21 and 38 per cent, respectively. ACLED reports that approximately 25 per cent of all COVID-19 unrest events occurred in South Africa. Yet, the intensity and the increase of such have proven rather low. Out of 166 fatalities in all violent events in 2020, 11 can be attributed to COVID-19 unrest, a marginal share in the region’s conflict panorama. The BTI expert report explicitly points to shutdowns, which, while triggering unrest (see also Howard, 2020), also had a capacity-constraining effect: the author writes that “there is less opportunity for large gatherings.” Yet, effects on political conflict should not be overestimated at this point. While South African society is undeniably split along various social cleavages, “South Africa has been much more peaceful than it was in the 1980s or even during the democratic transition of the 1990s.” Violent crime is prevalent, however, and since 2008, xenophobia has turned increasingly violent (see also York, 2020). The BTI expert points out that the country “is one of the main destinations for immigrants from other African countries [...]. Competition for scarce job opportunities, particularly in impoverished

township areas, has heightened xenophobic sentiments, also substantiated through Afrobarometer surveys suggesting that many South Africans would prevent immigration from African countries." When the economy will continue to suffer, xenophobia against minorities, especially migrants, is not unlikely to turn violent again. Protests in previous years were fuelled by dissatisfaction with the government (De Juan & Wegner 2019). Recent developments in July 2020 not covered by BTI or other academic analysis suggest that socio-economic pressures, exacerbated by the pandemic, have contributed to the unrest that killed more than 300 people (Harding 2021). Following the arrest of former president Jacob Zuma, initial political protest in his home region of KwaZulu-Natal and near the capital gave way to massive looting. Government officials have accused the Zuma faction in the ruling African National Congress (ANC) and the security apparatus of orchestrating the unrest (ibid.). This supports the view that it is especially actors with pre-existing capacity who are able to mobilise for conflict. Besides ANC infighting, populist pressures from the *Economic Freedom Fighters* might form another risk that could be intensified by the pandemic. This, however, is an outlook rather than an assessment of past developments. Thus far, the pandemic can be linked to violence in South Africa, but only to a small, arguably growing effect through "COVID-19 unrest."

In sum, expert assessments and the illustrative case studies confirm previous findings in line with the hypotheses and our theoretical model. However, we have gathered some additional insights: First, COVID-19 matters for conflict, but its overall short-term impact is limited. Even in high-profile cases, such as Ethiopia, impact is indirect and relative at most. Second, we were able to identify evidence for more indirect and complex causal mechanisms linking the pandemic to violence. Not unsurprisingly, we mainly find effects related to government reactions, in particular lockdowns. Moreover, some novel indirect political mechanisms, such as in the case of Ethiopia, and possibly recently South Africa, were identified. We also find some positive effects, either through reducing the capacity of opposition forces or through effective, consensual handling by the government such as in Senegal. Regarding future developments, several risks should not be taken lightly. There is a threat of a substantial economic crisis in "petrostates" such as Angola, Gabon, Nigeria, and Congo-Brazzaville that may create distributional conflicts. Such conflicts are also not unlikely in many other countries and can lead to potential scapegoating of minorities, other interethnic tensions, and intra-government power struggles like in Ethiopia and South Africa.

## 5 Discussion and Conclusion

This paper has made an interim assessment on whether and how COVID-19 has affected violent conflict in sub-Saharan Africa. Around one year after the pandemic hit the region, we do find a substantial increase in violent conflict. Our analyses also find evidence attributing this rise partly to the pandemic. Yet, the most robust finding is that the stringency of government responses increases the risk of COVID-19 unrest, which forms only a small fraction of violence.

Otherwise, we find that COVID-19 may have also contributed to ongoing conflicts, but these findings are not robust across all models, and that fragility, especially jihadism, accounts much more for the increase in violence observed in 2020, the first year of the pandemic. Both the results of the statistical analysis and the qualitative assessments point to this conclusion and are in line with our theoretical model and the hypotheses, which expect a longer time of incubation if the virus shock exacerbates existing challenges that are then not adequately managed. However, many imperatives for future research remain, which refer to more fine-grained and better data, a longer time frame, more advanced statistical models, further qualitative case studies, and better theorising on indirect influences.

In terms of methodology, we need more reliable and disaggregated data on the pandemic itself (e.g., Maeda & Nkengasong 2021). This includes more exact numbers on infections, hospitalisation, testing strategies, positive test ratios, vaccination rates, and excess mortality rates. We also need more data on government reactions – for instance, to what extent citizens comply with government restrictions and how they view them. Data should be gathered at the subnational level and for shorter periods. Better data is also needed for all steps of our model, especially on discourse and mobilisation in the period after the beginning of the pandemic. Surveys or analysis of social media content may be able to reveal “blaming” patterns. International aid from the IMF and other donors should also be investigated in more detail. In mid-May 2021, a large conference in Paris pledged more support for African countries and may prove crucial to whether these efforts succeed (Irish, 2021).

Better data will allow for more advanced statistical models, and thus more leverage for causal identification, including conditional relationships (e.g. particular elements of fragility, and variables specific to COVID-19). We might also identify smaller country samples or (sub)regions that constitute the conditions of natural experiments (e.g. a variation on the pandemic and government reactions but with comparable levels of fragility). While more sophisticated statistics will facilitate causal identification, complex causal mechanisms can arguably be better captured by qualitative in-depth case studies. Such case studies may also reveal new variables that can be fed back into quantitative analysis in the next round of analysis in nested research designs (e.g., Lieberman, 2005).<sup>33</sup>

We are still partially groping in the dark regarding the mechanisms for a possible effect of the virus on organised violence. Does the effect occur because of more opportunities for violent non-state actors, or is it due to economic factors, or still other factors? Or are we dealing with a spurious relationship due to omitted-variable bias, as suggested by the monthly analysis in which COVID-19 was not significant? We should moreover further develop theory that has to stay in constant contact with empirical investigation. For instance, the conceptualisation of the “fallout potential” on various government reactions requires elaboration. Current data is de-

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33 Such explorative case studies are the next steps in our project.

signed to assess effects on the pandemic, not so much the political “fallout.” We need to theorise what might work best against the virus in relation to other policy goals such as not harming the economy and ensuring political rights, stability, and societal well-being.

While pandemic politics certainly matters, we refrain from making bold policy recommendations at this point. However, our findings do not justify announcing an all-clear. Theory suggests that the pandemic fallout on conflict will have a longer incubation period and further waves, and that global dynamics might make things worse – especially when vaccine availability remains low. How academics can best help in this situation is to contribute to knowledge on “pandemic fallouts.” Yet, it seems clear that neglecting possible economic and political aftermath and cutting aid or investment in Africa will certainly be counterproductive. Any vaccination effort in the region should be supported.



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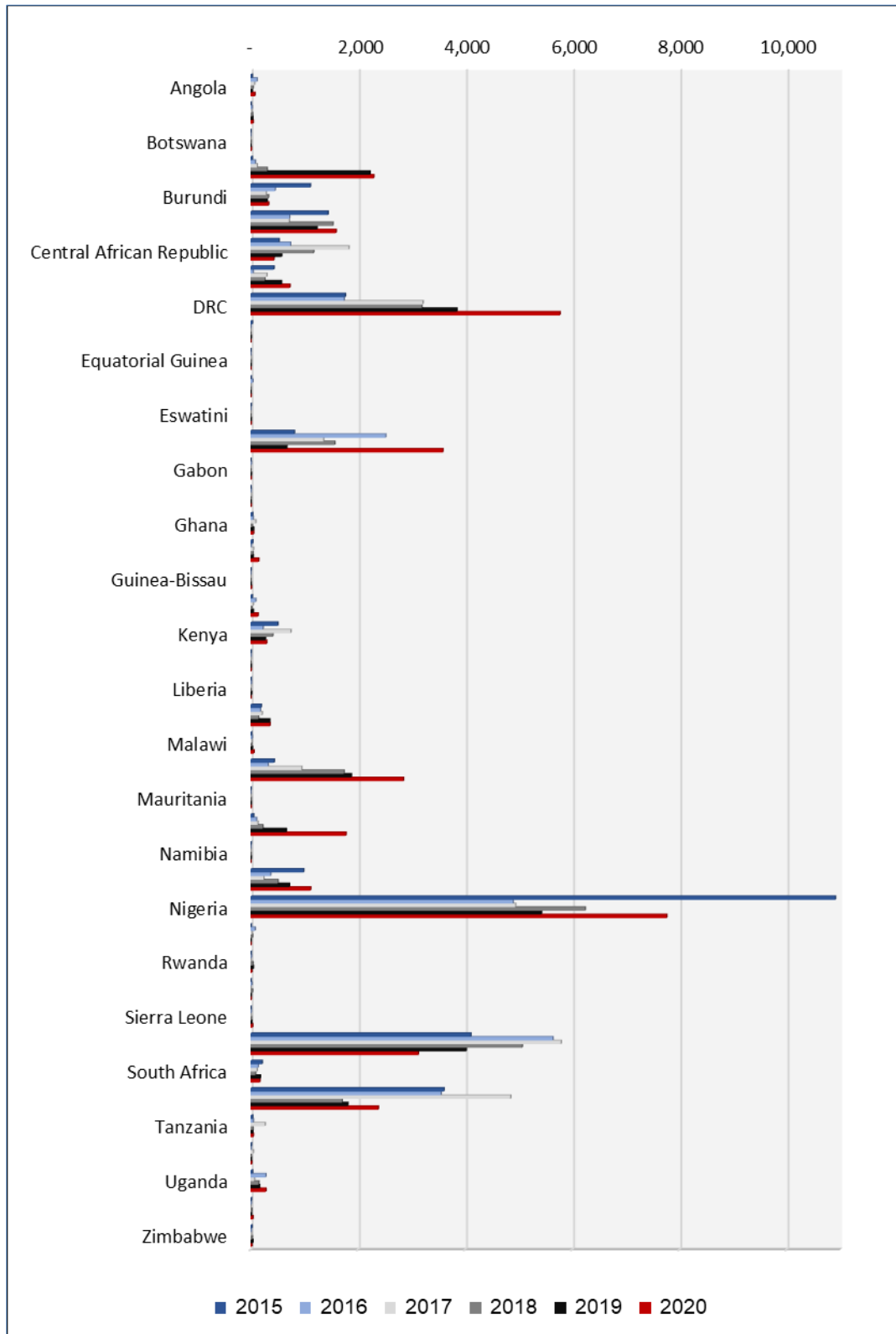
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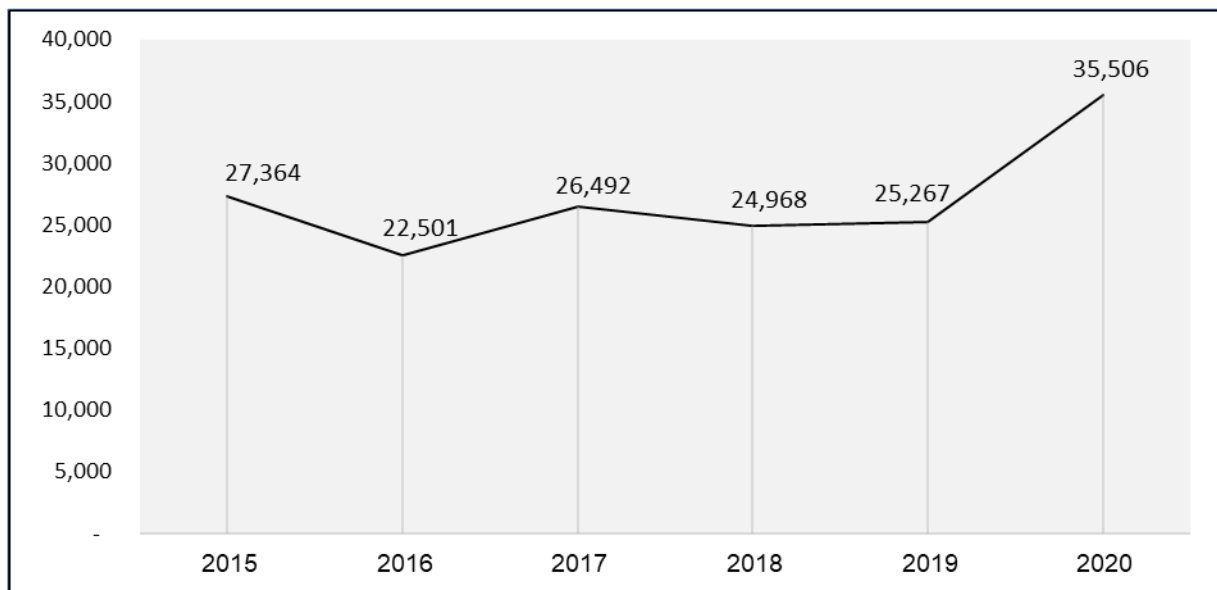
Appendix

Appendix 1. Additional Descriptive Statistics and Graphs

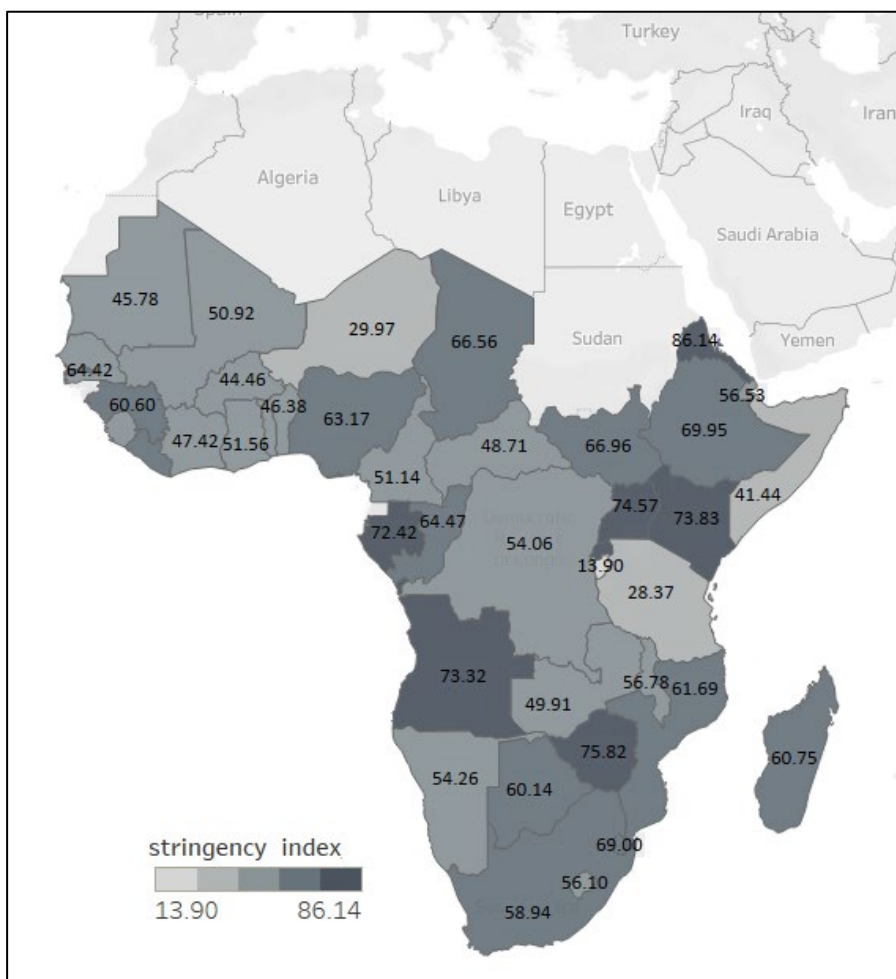
Table 1A. Total Fatalities per Country in Sub-Saharan Africa, 2015–2020



Source: Authors' compilation based on ACLED data.

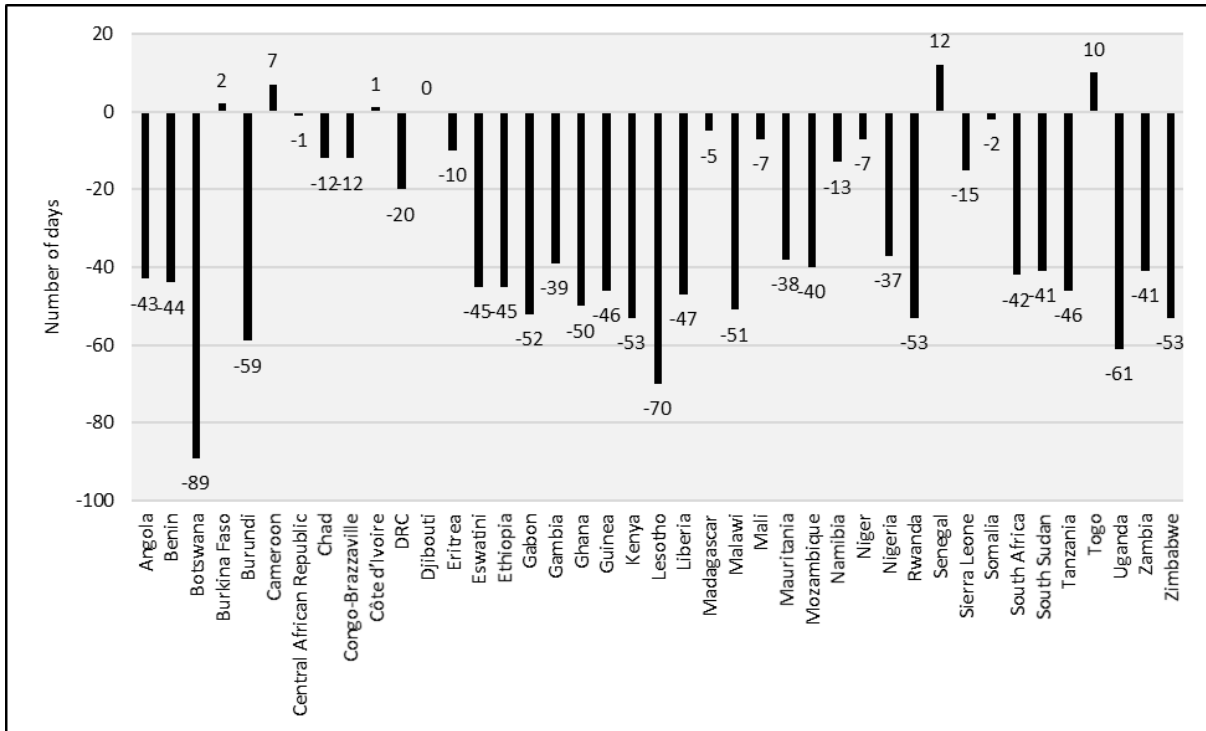
**Table 2A. Total Number of Fatalities in Sub-Saharan Africa, 2015–2020**

Source: Authors' compilation based on ACLED data.

**Appendix 1B. Average Stringency Score in Sub-Saharan Africa, 2020**

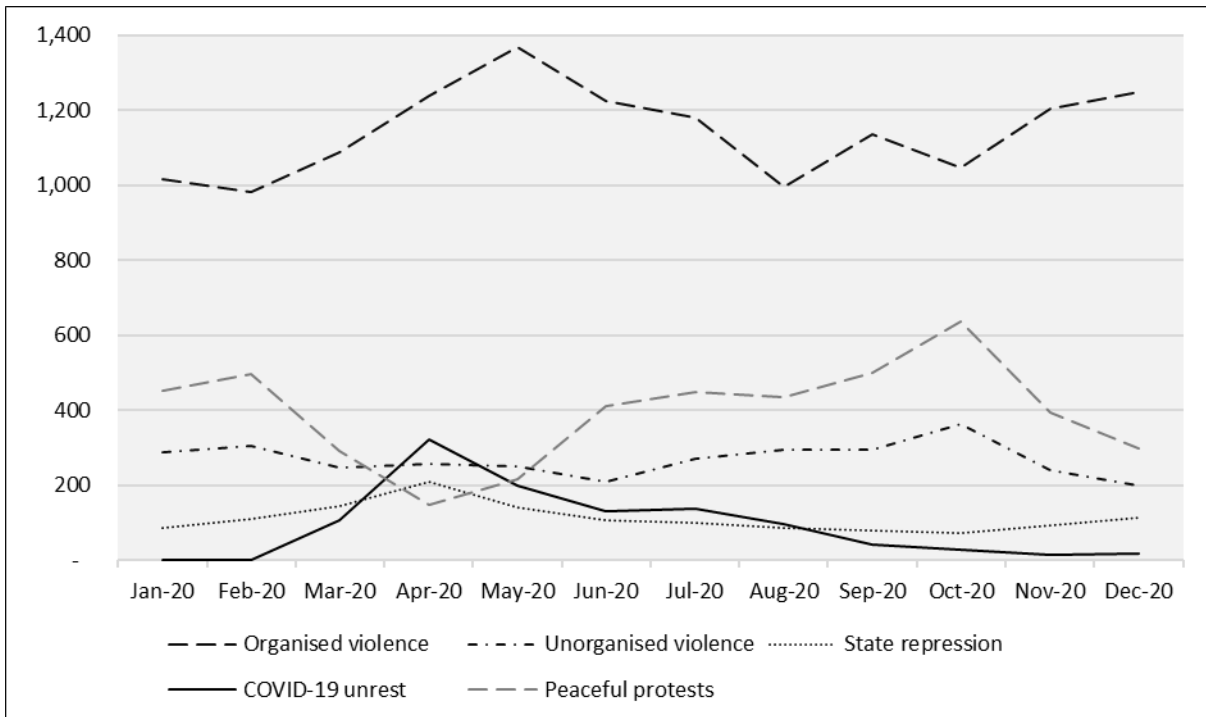
Source: Authors' compilation according to Oxford COVID-19 Government Response Tracker (Hale et al. 2021).

**Appendix 1C. Time (in days) between First Government Response and First Recorded COVID-19 Case**



Source: Authors' compilation according to *Our World in Data* (Roser et al. 2020).

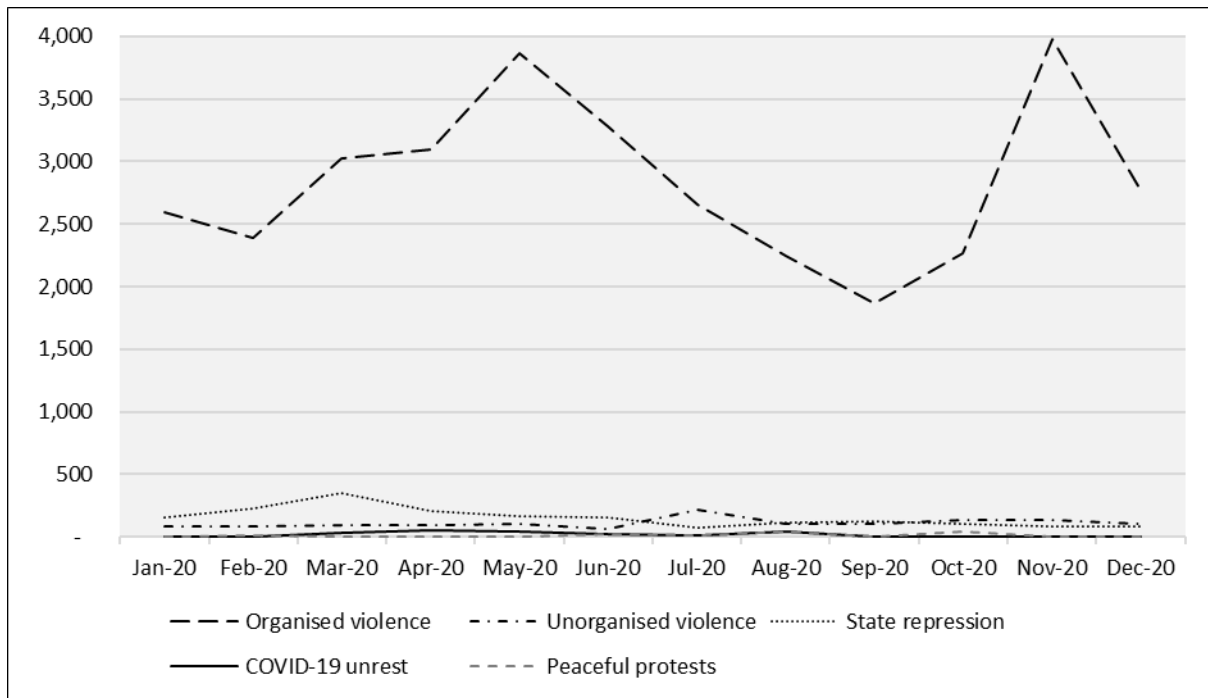
**Appendix 1D. Number of Conflict Events in Sub-Saharan Africa, January to December 2020**



Source: Authors' compilation based on ACLED data.



**Appendix 1E. Number of Conflict Fatalities in Sub-Saharan Africa, January to December 2020**



Source: Authors' compilation based on ACLED data.

**Appendix 2. Additional Bivariate Correlations (Robustness Checks)****Table 2A. Bivariate Correlations: Change in Number of Events, 2020 vs. 2015–2019**

		Total events	Organised violence (battles, violence against civilians, etc.)	Unorganised violence (riots)	State repression (violence against civilians)	COVID-19 unrest	Unorganised peaceful protests
	Sources	ACLED	ACLED	ACLED	ACLED	ACLED	ACLED
<b>Fragility</b>							
Fatalities mean 2015–2019	ACLED	.539**	.598**	.075	.162	.173	.311*
	World	-.042	-.127	-.049	.070	.160	.213
GDP p.c. (log)	Bank						
Health Index	UN	.135	.054	.184	.399**	.645**	.241
Liberal democracy	V-Dem	.035	-.014	.012	.063	.192	.158
Political corruption	V-Dem	.251	.243	.144	.083	.033	.177
Jihadist armed groups in 2021	UCDP	.582**	.692**	.099	.652**	.244	.201
<b>COVID-19 &amp; responses</b>							
COVID-19 deaths (log)	JHU	.406**	.332*	.215	.467**	.678**	.461**
	Oxford-	.182	.232	-.006	.130	-.188	.042
Time reaction	Tracker						
Stringency average	Oxford-Tracker	-.007	-.016	.029	.157	.209	.002
<b>Post-COVID-19 developments &amp; controls</b>							
Economic output strength 2019–2021	BTI	.112	.080	.279†	.304*	.054	.033
Freedom of movement	V-Dem	-.033	-.071	.024	-.004	.142	.059
Cleavage management	BTI	-.118	-.161	-.028	.033	.099	.019
Population size (log)	UN	.490**	.499**	.321*	.414**	.506**	.261†

Notes: \*\* Correlation is significant at the 0.01 level (two-tailed).

\* Correlation is significant at the 0.05 level (two-tailed).

† Correlation is significant at the 0.1 level (two-tailed).

### Appendix 3. Additional Multivariate Regressions (Robustness checks)

**Table 3A. Linear Regressions, Total Fatalities, 2020**

	Model 1: Total fatalities	Model 2: Organised fatalities	Model 3: Unorganised violent events	Model 4: Unorganised peaceful events	Model 5: State violence fatalities
Fatalities	.813***	.818***	.420**	.418*	.080
mean 2015–2019	(.104)	(.102)	(.006)	(.005)	(.016)
GDP p.c. (log)	-.142†	-.146†	.009	-.105	-.124
	(351.998)	(342.933)	(18.873)	(7.258)	(52.620)
Health index	-.232*	-.244*	.171	-.027	-.288
	(20.672)	(20.140)	(1.108)	(.426)	(3.090)
Political corruption	-.140†	-.143†	.061	-.263	-.063
	(560.709)	(546.268)	(30.063)	(11.562)	(83.820)
COVID-19 deaths (log)	.211*	.212*	.117	.114	.271
	(230.607)	(224.668)	(12.364)	(4.755)	(34.473)
Stringency average	.011	.006	.113	.193	-.182
	(7.654)	(7.457)	(.410)	(.158)	(1.144)
Population (log)	.186*	.178†	.351*	.236	.240
	(272.828)	(265.801)	(14.628)	(5.626)	(40.785)
Observations	43	43	43	43	43
R <sup>2</sup>	.888	.888	.675	.365	.180

*Notes:* Robust standard errors are in parentheses. COVID-19 unrest is not calculated here as this number is logically identical with the increase numbers (no such events before 2020).

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

**Table 3B. Linear Regressions, Change in Events, 2020 vs. 2015–2019**

	Model 1: Total events	Model 2: Organised violence	Model 3: Unorganised violence	Model 4: Unorganised peaceful events	Model 5: State vio- lence	Model 6: COVID- related events
Fatalities	.479**	.554**	-.056	.282	-.027	.041
mean 2015– 2019	(.054)	(.038)	(.012)	(.017)	(.005)	(.005)
GDP p.c. (log)	-.016	-.138	.079	.265	.107	.164
	(182.049)	(126.966)	(38.945)	(56.910)	(16.476)	(17.991)
Health index	-.187	-.285	-.040	.110	.227	.495**
	(10.691)	(7.456)	(2.287)	(3.342)	(.968)	(1.057)
Political	.059	-.072	.199	.295†	.172	.225
corruption	(289.991)	(202.248)	(62.036)	(90.654)	(26.245)	(28.658)
COVID-19	.366†	.337†	.083	.376	.151	.214
deaths (log)	(119.267)	(83.180)	(25.514)	(37.284)	(10.794)	(11.786)
Stringency	-.099	-.047	-.019	-.220	.086	.059
average	(3.958)	(2.761)	(.847)	(1.237)	(.358)	(.391)
Population	.139	.184	.294	-.156	.231	.130
(log)	(141.103)	(98.409)	(30.185)	(44.110)	(12.770)	(13.944)
Observations	43	43	43	43	43	43
R <sup>2</sup>	.532	.585	.135	.399	.297	.611

Notes: \*\* Correlation is significant at the 0.01 level (two-tailed).

\* Correlation is significant at the 0.05 level (two-tailed).

† Correlation is significant at the 0.1 level (two-tailed).

**Table 3C. Linear Regressions, Total Events, 2020**

	Model 1: Total events	Model 2: Organised vio- lent events	Model 3: Unorganised vio- lent events	Model 4: Unorganised peaceful events	Model 5: State vio- lence
Fatalities	.650***	.724***	.088	.421**	.225
mean 2015–2019	(.068)	(.045)	(.018)	(.025)	(.006)
GDP p.c. (log)	.009	-.128	.181	.228	.018
	(228.620)	(151.157)	(60.891)	(84.497)	(19.542)
Health index	-.019	-.216†	.327	.254	.173
	(13.426)	(8.877)	(3.576)	(4.962)	(1.148)
Political	.097	.023	.196	.154	.260
corruption	(364.175)	(240.782)	(96.995)	(134.598)	(31.130)
COVID-19	.283†	.193	.225	.363*	-.007
deaths (log)	(149.777)	(99.028)	(39.892)	(55.357)	(12.803)
Stringency	-.144	-.113	-.092	-.163	.006
average	(4.971)	(3.87)	(1.324)	(1.837)	(.425)
Population	.123	.141	.187	-.031	.315
(log)	(177.199)	(117.159)	(47.195)	(65.492)	(15.147)
Observations	43	43	43	43	43
R <sup>2</sup>	.767	.795	.473	.634	.411

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

**Table 3D. Stepwise Linear Regression, COVID-Related Fatalities, 2020**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Fatalities	.351*						.438**
mean 2015–2019	(.001)						(.001)
GDP p.c. (log)	.116 (2.747)						-.062 (3.394)
Health index	.288* (.168)						.165 (.195)
Political corruption	.175 (5.271)						.128 (5.652)
Population (log)	.376* (2.632)						.348* (2.730)
Jihadist	-.014 (2.689)						-.120 (2.753)
COVID-19 deaths (log)		.543*** (1.737)					.113 (2.308)
Stringency average			.242 (.105)				.349* (.085)
Time reaction			-.052 (.059)				-.127 (.042)
Output strength				.065 (.852)			.278* (.771)
Freedom of movement					.046 (8.414)		-.113 (6.835)
Cleavage management						-.147 (.681)	-.052 (.625)
Observations	43	43	43	43	43	43	43
R <sup>2</sup>	.618	.295	.067	.004	.002	.022	.741

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

**Table 3E. Linear Mixed Models, Conflict Events and Fatalities in Sub-Saharan Africa, 2020 Monthly Observation**

	Model 1: Total events	Model 2: Total fatalities	Model 3: COVID-related events	Model 4: COVID-related fatali- ties
Fatalities	0.348***	.096***	7.650	.000*
mean 2015–2019	(.005)	(.008)	(.000)	(7.362)
GDP p.c. (log)	12.699	-27.546	1.803	.159
	(15.992)	(25.091)	(1.145)	(.225)
Health index	.739	-2.508†	.270***	.020
	(.896)	(1.417)	(.064)	(.012)
Political corruption	29.041	-72.531	3.755†	.064
	(28.045)	(43.508)	(1.982)	(.387)
COVID-19 deaths/million	.147	.079	.0431	-.012†
	(.115)	(.594)	(.028)	(.007)
Stringency average	-.010	.318	.065***	.011***
	(.036)	(.196)	(.009)	(.002)
Population (log)	26.568*	62.145**	1.696†	.572**
	(13.110)	(20.386)	(.929)	(.182)
Observations	516	516	516	516

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

**Table 3F. Linear Mixed Models, Total Events in Sub-Saharan Africa, 2020 Monthly Observation**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Fatalities	.033***						.032***
mean 2015–2019	(.005)						(.005)
GDP p.c. (log)	14.372						20.437
	(13.455)						(15.714)
Health index	.818						.662
	(.823)						(.953)
Political corruption	21.742						39.151
	(25.814)						(42.562)
Population (log)	18.293						42.750
	(12.891)						(32.163)
Jihadist	25.508†						18.246
	(13.169)						(13.511)
COVID-19 deaths/million		.105					22.037
		(.111)					(13.765)
Stringency average			.006				.154
			(.036)				(.115)
Time reaction			.402				-.008
			(.417)				(.036)
Output strength				-8.135			.054
				(5.980)			(.205)
Freedom of movement					-69.016		-.323
					(59.332)		(3.818)
Cleavage management						-10.830*	-44.063
						(4.643)	(31.106)
Observations	516	516	516	516	516	516	516

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10



**Table 3G. Linear Mixed Models, COVID-19 Unrest Events in Sub-Saharan Africa, 2020 Monthly Observation**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Fatalities	9.966						4.890
mean 2015–2019	(.000)						(.000)
GDP p.c. (log)	2.768*						1.698
	(1.067)						(1.176)
Health index	.314***						.276***
	(.065)						(.072)
Political corruption	4.836*						.799
	(2.047)						(3.142)
Population (log)	.943						4.713†
	(1.022)						(2.368)
Jihadist	.482						1.340
	(1.044)						(.998)
COVID-19 deaths/million		.063*					.726
		(.029)					(1.015)
Stringency average			.069***				.045
			(.009)				(.029)
Time reaction			-.019				.065***
			(.022)				(.008)
Output strength				.128			-.015
				(.338)			(.015)
Freedom of movement					3.111		-.180
					(3.311)		(.284)
Cleavage management						.183	-1.949
						(.272)	(2.319)
Observations	516	516	516	516	516	516	516

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

**Table 3H. Linear Mixed Models, Total Conflict Fatalities in Sub-Saharan Africa, 2020 Monthly Observation**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Fatalities	.091***						.092***
mean 2015–2019	(.007)						(.008)
GDP p.c. (log)	-12.084						-22.324
	(19.024)						(22.935)
Health index	-2.529*						-2.878*
	(1.164)						(1.409)
Political	-78.931*						-2.071
corruption	(36.497)						(61.163)
Population	40.232*						-98.584*
(log)	(18.226)						(46.098)
Jihadist	66.873**						46.761*
	(18.619)						(19.439)
COVID-19		-.008					61.042**
deaths/million		(.594)					(19.771)
Stringency			.298				.293
average			(.197)				(.588)
Time reaction			.860				.315
			(.869)				(.197)
Output				-15.424			.222
strength				(12.456)			(.295)
Freedom of					-59.810		4.325
movement					(124.737)		(5.538)
Cleavage						-24.914*	30.995
management						(9.497)	(45.188)
Observations	516	516	516	516	516	516	516

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

**Table 3I. Linear Mixed Models, COVID-19 Unrest Fatalities in Sub-Saharan Africa, 2020 Monthly Observation**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Fatalities	.000*						.000**
mean 2015–2019	(7.805)						(8.196)
GDP p.c. (log)	.236						.059
	(.205)						(.231)
Health index	.016						.026+
	(.012)						(.014)
Political corruption	.237						-.777
	(.394)						(.611)
Population (log)	.486*						-.178
	(.197)						(.459)
Jihadist	.132						.436*
	(.201)						(.194)
COVID-19 deaths/million		-.007					.099
		(.007)					(.197)
Stringency average			.010***				-.010
			(.002)				(.007)
Time reaction			-.003				.011***
			(.004)				(.002)
Output strength				.027			-.005+
				(.062)			(.002)
Freedom of movement					.176		.079
					(.620)		(.055)
Cleavage management						-.056	-.011
						(.050)	(.454)
Observations	516	516	516	516	516	516	516

Note: Robust standard errors are in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

#### Appendix 4. Overview of BTI Expert Assessments

**Table 4A. Change and Level of Conflict Intensity, and Explicit Pandemic Influence**

Intensity level early 2021	Increased conflict intensity	Stable conflict intensity	Decreased conflict intensity	N
High: 9–10	CAR (+1), Mali (+2), Ethiopia (+3)	<b>Nigeria</b> , Somalia, South Sudan		7
Some: 6–8	Guinea (+1) Mozambique (+3)	Burkina Faso, <b>Chad</b> , Burundi, <b>Lesotho</b> , Rwanda, Uganda, DRC	Cameroon (-1), <b>Congo-Brazzaville (-1)</b>	11
Low: 3–5	Benin (+1), <b>Niger (+1)</b> , <b>Namibia (+1)</b> , <b>Zimbabwe (+1)</b>	Côte d'Ivoire, Mauritania, Gambia, Ghana, Guinea-Bissau, Liberia, Senegal, <b>Sierra Leone</b> , Equatorial Guinea, Angola, Djibouti, Eritrea, <b>Eswatini</b> , <b>Madagascar</b> , Malawi, South Africa, Tanzania, Zambia, Togo	<b>Kenya (-1)</b>	24
None: 1–2		Gabon, Botswana, Mauritius		3
N	9	33	3	45

Notes: DRC is preliminary.

In **bold cases**, experts identified an increasing impact on conflict by the pandemic.

Assessments rely on preliminary results.

## Appendix 5. Robustness Checks

**Table 5. Linear Mixed Models, Conflicts in Sub-Saharan Africa, 2020 Monthly (South Africa Excluded)**

	Model 1: Total events	Model 2: Total fatalities	Model 3: COVID-related events	Model 4: COVID-related fatalities
Fatalities	.035***	.092***	.000	.000**
mean 2015–2019	(.004)	(.008)	(.000)	(8.265)
GDP (log)	-3.163	-27.636	-.178	-.027
	(13.380)	(24.360)	(.842)	(.241)
Health index	-1.102	-3.281*	.138*	.019
	(.838)	(1.533)	(.053)	(.015)
Democracy	30.878	-2.773	-.531	-.779
	(33.918)	(61.735)	(2.134)	(.613)
Political	35.921	-99.700*	3.992*	-.187
corruption	(25.631)	(46.467)	(1.603)	(.460)
Population	12.885	46.492*	.541	.453*
(log)	(10.818)	(19.994)	(.695)	(.200)
Jihadist	26.521*	61.801**	1.254†	.111
	(10.993)	(19.965)	(.589)	(.197)
COVID-19	.078	.482	-.026	-.000
deaths/million	(.168)	(1.048)	(.043)	(.012)
Stringency	.010	.323	.0539***	.010***
average	(.032)	(.204)	(.008)	(.002)
Time reaction	-.059	.198	-.026*	-.005†
	(.165)	(.300)	(.010)	(.002)
Output	5.460	5.542	.309	.096†
strength	(3.253)	(5.908)	(.204)	(.058)
Freedom of	-15.013	37.050	.935	.108
movement	(25.464)	(46.484)	(1.608)	(.462)
Cleavage	-1.292	-2.079	.088	-.019
management	(2.907)	(5.271)	(.181)	(.052)
Observations	504	504	504	504

*Note:* Robust standard errors are in parentheses.  
\*\*\* p<0.001, \*\* p<0.01, \* p<0.05, † p<0.10

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