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## **Do Religious Factors Impact Armed Conflict? Empirical Evidence from Sub-Saharan Africa**

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# **Do Religious Factors Impact Armed Conflict?**

## **Empirical Evidence from Sub-Saharan Africa**

### **Abstract**

Theoretically, the “mobilization hypothesis” establishes a link between religion and conflict by arguing that religious structures such as overlapping ethnic and religious identities are prone to mobilization; once politicized, escalation to violent conflict becomes likelier. Yet, despite the religious diversity in sub-Saharan Africa and the religious overtones in a number of African armed conflicts, this assumption has not yet been backed by systematic empirical research on the religion–conflict nexus in the region. The following questions thus remain: Do religious factors significantly impact the onset of (religious) armed conflict? If so, do they follow the logic of the mobilization hypothesis and, if yes, in which way? To answer these questions, this paper draws on a unique data inventory of all sub-Saharan countries for the period 1990–2008, particularly including data on mobilization-prone religious structures (e.g. demographic changes, parallel ethno-religious identities) as well as religious factors indicating actual politicization of religion (e.g. inter-religious tensions, religious discrimination, incitement by religious leaders). Based on logit regressions, results suggest that religion indeed plays a significant role in African armed conflicts. The findings are compatible with the mobilization hypothesis: Overlaps of religious and ethnic identities and religious dominance are conflict-prone; religious polarization is conflict-prone only if combined with religious discrimination and religious tensions.

**Keywords:** Armed conflict, religion, sub-Saharan Africa, mobilization

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# Do Religious Factors Impact Armed Conflict? Empirical Evidence from Sub-Saharan Africa

Matthias Basedau, Georg Strüver, Johannes Vüllers and Tim Wegenast

## Article Outline

- 1 Introduction
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Man is a Religious Animal. He is the only Religious Animal. He is the only animal that has the True Religion – several of them. He is the only animal that loves his neighbor as himself and cuts his throat if his theology isn't straight. He has made a graveyard of the globe in trying his honest best to smooth his brother's path to happiness and heaven.

Mark Twain

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

Quantitative research on armed conflict onset has failed to find evidence for a significant causal influence of religious factors in Africa<sup>2</sup> and elsewhere. Rough terrain, weak state ca-

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capacity and socioeconomic problems appear to be among the most important robustly significant variables (Dixon 2009; Hegre/Sambanis 2006; Fearon/Laitin 2003; Collier/Sambanis 2005; Elbadawi/Sambanis 2000).

This comes as a surprise since in a number of African armed conflicts such as those in Ethiopia, Eritrea, Sudan, Somalia and Uganda, religion obviously plays a role. Also, the religious demography in Africa is diverse, which is often considered a risk, and religion plays a more pronounced role than it does, for instance, in Western countries (Pew 2010; Ellis/Ter Haar 2007). Theoretically, a link between religious factors and conflict can be established by a “mobilization hypothesis”: Certain religious structures such as parallel ethnic and religious identities or changing religious demographics are prone to mobilization in politics; once politicized, violent conflict becomes likelier. However, quantitative studies mostly limit analysis to simple demographic variables such as population shares and thus have failed to systematically test the theoretically identified causal mechanisms, particularly mobilization mechanisms. The following questions thus remain:

Do religious factors significantly impact the onset of (religious) armed conflict in Africa? Do effects, if present, follow the logic of the mobilization hypothesis and, if yes, in what ways?

This paper tries to answer these questions by drawing on a unique data inventory of all sub-Saharan countries for the period 1990-2008 that includes new measurements on religious variables in armed conflict but in particular encompasses indicators of various mobilization-prone religious structures (e.g. religious demographic changes, parallel ethno-religious identities) as well as religious factors indicating actual mobilization of religion (e.g. quality of inter-religious relations, incitement by religious leaders).

The paper proceeds as follows: First, we review the literature, discuss how religion and conflict might be linked theoretically and what empirical studies have found. Particularly, we show that research on the religion–conflict link suffers from a lack of adequate data. We then develop our hypotheses that mainly draw on the idea of “mobilization” of religion, present our database, and outline our empirical strategy. The following section presents the results of logit regressions on the religious determinants of onset of religious and “regular” armed conflicts and discusses their implications for the validity of the mobilization hypothesis. The final section summarizes the findings and draws conclusions for future research.

## 2 How Religion May Impact Armed Conflict

Over the last decade, there has been growing interest in research on the religion–conflict link (e.g. Huntington 1996; Juergensmeyer 2008). Today, the “ambivalence of religion” has been

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2 If not indicated otherwise, “Africa” denotes the 48 countries of “sub-Saharan Africa” (that is, excluding North Africa).

widely accepted: Religion may not only incite violence but also contribute to peace (Appleby 2000; Philpott 2007).<sup>3</sup> Ambivalence also refers to the scope of impact. Sometimes religion may count more, in other circumstances it may count less. Furthermore, it seems plausible that the ambivalence of religion depends on context (Basedau/De Juan 2008). Under certain religious and non-religious conditions, religion spurs conflict or fosters peace – or differs in regards to how much religion counts. Finally, it appears useful to consider different religious dimensions. “Religion” is a complex phenomenon and difficult to define precisely (as argued by, for instance, Ter Haar 2005). We do not intend to solve this problem once and for all; we believe that for analysis in *social sciences* it is useful to distinguish between different dimensions of religion (Basedau 2009; Harpviken/Røislien 2008). There are different ways to typologize these dimensions – or “factors,” as we prefer to say – but we basically mean that religion is not, as often intuitively thought, solely about religious ideas (and the respective discourse). Other religious factors relevant for social science analysis include demographic structures of religion, religious organizations, and the related behavior of religious actors. In this paper we will mainly distinguish between religious demographic structures on the one hand and the actual politicization of religion on the other hand. While structures refer to certain constellations such as fractionalization and the like, actual politicization is indicated, for instance, by the quality of inter-religious relations as well as the behavior of religious actors.

Theoretically, a number of hypotheses connect religious factors or variables to conflict: First, from a socio-psychological point of view, diverse religious identities, similar to ethnic and other social identities, form a group identity and can result in escalating inter-group dynamics. Research demonstrates that people often privilege in-group members over out-group members (Seul 1999: 565; Stewart 2009). As a result, violent escalation becomes likelier.

Second, religious identities are special. They are connected to particular religious ideas. Such religious ideas are shared values and norms legitimized by a transcendental source, and therefore it might be argued that they are hardly subject to negotiation and compromise given their accepted supernatural origin (e.g. Svensson/Harding 2011: 135; Horowitz 2009: 167-172). This can also entail a higher propensity for violent behavior by religious actors: non-believers and adherents to different religious traditions might be converted by force, and heretics may have to be punished. Conflicts over the role of religion in society or the state are likely to emerge between different religious groups, especially if the religion in question claims universal validity. Furthermore, combatants might be motivated through specific religious rewards for participation in acts of violence (e.g. Anderson 2004; Toft 2007; Svensson 2007).

Third, religion – or more precisely, religious factors – might be understood as a possible mobilization resource for and in conflicts. This idea is by no means incompatible with the former two ideas, but this theoretical branch stresses the role of leaders in the organization of

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3 This article focuses on the religion–conflict link. Looking at the peace dimension is certainly commendable but beyond the scope of this paper.

collective action (Fearon/Laitin 2000; De Juan 2009). In order to mobilize followers, leaders can choose from different identities, such as religious, ethnic or other social identities. Sometimes, religion may be the most rational choice for them.<sup>4</sup> For instance, politicization of religion might increase the risk of a violent escalation of a conflict, which is principally rooted in political or socioeconomic problems (e.g. Keddie 1998; Hasenclever/De Juan 2007: 21-24).

### *Empirical Findings Thus Far*

Empirically, the coexistence of various religious communities within a given society should increase the likelihood of conflict onset because of the aforementioned socio-psychological in- and out-group dynamics and/or principally incompatible religious ideas (Huntington 1996; Hasenclever/Rittberger 2003: 109-110). Studies find no empirical evidence for this assumption (e.g. Russett et al. 2000; Tusicisny 2004). Religious diversity as such is not significantly linked to a higher probability of (domestic) armed conflict. Furthermore, the studies show mixed or non-significant results for other religious demographic structures. The results are consistent neither for a strongly fractionalized religious structure, nor for a so-called polarized structure, in which two more-or-less large religious groups coexist (e.g. Croissant et al. 2010; Montalvo/Reynal-Querol 2005; Fearon/Laitin 2003; Ellingsen 2000). However, some studies find positive evidence that conflicts that are fought along religious boundaries may display a higher intensity and may endure longer than other conflicts that are not fought along such lines (Horowitz 2009: 167-172; Svensson 2007; Toft 2007; Pearce 2005; Ellingsen 2005).

The empirical findings on religion as a mobilization resource are inconsistent. For instance, there is little support for the claim that a higher politicization of religion automatically increases the (internal) conflict risk. Studies found a resurgence of religion in politics in the last few decades worldwide, but a corresponding increase in religious conflicts did not occur (Moghadam 2003; Fox 2007). Moreover, case studies show that religious overtones in armed conflict do not necessarily depend on religious politicization. Rather, elites must convince believers to engage in specific behavior. Furthermore, these studies point out the importance of – and the dependence upon – numerous (non-religious) factors in mobilization processes, such as the organizational structures of religious organizations and their dependence on state regulations (e.g. Wiktorowicz 2004; Fox 1999). These recent approaches underscore the importance of looking not only at interfaith relations, but also at the relationship between the religious groups and the conflict parties.

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4 Toft argues it the other way around: political elites will tender religious bids, if religious legitimacy seems to be rational to secure their own survival (Toft 2007: 102–107). This also emphasizes the role of political leaders for the process of religious charging of a conflict. Another approach argues that successful mobilization requires that both sides – conflict party and religious actor – must have interest in it (De Juan 2009). But in both approaches it is necessary that religious leaders convince their believers of their religious interpretations – which is likelier under specific (non-)religious conditions such as credibility of religious leaders or problematic inter-religious relations.

Looking at studies that specifically deal with Africa, we find that the majority of studies on religion and conflict in sub-Saharan Africa are single case studies; comprehensive quantitative and comparative studies on religion and conflict are virtually non-existent (Basedau/De Juan 2008: 6). This comes as a surprise since religion has a high social relevance in Africa, this relevance having apparently increased in recent years (Pew 2010; Ellis/Ter Haar 2007; McCauley/Gyimah-Boadi 2009). Also, the religious diversity, particularly the juxtaposition of Christians and Muslims in many African countries and the continent as a whole, is often considered a risk. Though recent systematic descriptive studies have found that in almost half of the 48 sub-Saharan countries religion and violence are substantially linked in one way or the other (Basedau et al. 2011), large-N studies on the causal religion–conflict link in Africa find no evidence for a significant influence of religious diversity (Collier/Sambanis 2005; Elbadawi/Sambanis 2000). Instead, Collier and Hoeffler (2002) find that combined high ethno-linguistic fractionalization and religious fractionalization decrease the likelihood of civil war incidence in Africa. Haynes (2005) estimates that socioeconomic and political factors better explain civil war (onset) than do ethnic and religious fragmentation. Basedau and Vüllers (2010) find initial support for the mobilization hypothesis. In particular, the overlap of religious and ethnic boundaries apparently makes armed conflict more likely (see also Stewart 2009).

Summarizing the global and Africa-specific state of the art on the religion–conflict link, at least two observations are striking: Firstly, there is a contradiction between the findings of single case studies and the results of quantitative and cross-regional studies. While religion generally plays at best a minor role in armed conflict, religion evidently impacts armed conflict and its dynamics in particular countries such as Nigeria and Somalia (e.g. Harnischfeger 2006; Love 2006). Secondly, and closely related, the data quality of most of the large-N studies seems to be questionable: commonly, studies only measure the influence of religion with demographical constellations. Only a few studies go further and consider religious incompatibilities or general remands on religious symbols.

### 3 Hypothesis: The Mobilization of Religion in Conflict

The following question remains: Under what circumstances will religious factors increase the risk of armed conflict onset? We believe that the theoretical approaches discussed above are far from mutually exclusive but rather form different parts of what one might call the “mobilization hypothesis” (Basedau/Vüllers 2010: 53-55). In a nutshell, our “mobilization hypothesis” argues that religious phenomena will be rational sources for religious and/or political actors in conflict processes, if (a) particular *conflict-prone religious structures* are present and (b) religion also becomes *politicized*. These two conditions taken together are necessary to the mobilization of religion and, if jointly present, will increase the risk of (religious) armed conflict onset.

Both “structures” and “politicization” deserve brief illustration: In reference to the above-discussed theoretical approaches, specific religious demographic structures such as fraction-

alization, polarization, or the dominance of one religious group can be considered potentially conflict-prone (e.g. Reynal-Querol 2002; Montalvo/Reynal-Querol 2005; Ellingsen 2005). Furthermore, some argue that parallel ethno-religious identity structures are most conflict-prone because mobilization resources multiply in this context (Stewart 2009). Other authors will stress significant changes in the religious demographic structure. These changes render violence likelier because the religious group that is shrinking can feel threatened in their social position by the religious group that is growing (Slack/Doyon 2001).

As argued above, religion must be politicized to be socially relevant for the believers and to be part of the conflict. Obviously, the behavior of leaders comes into play here. Incitements for violence by religious (and political) leaders increase the likelihood of conflict onset. Other proxies for religious politicization are feelings of discrimination on the part of religious groups and possibly already-existing inter-religious tensions. The quality of inter-religious relations may indicate the already-existing level of politicization or, more precisely, the perceptions of different religious communities vis-à-vis each other. “Tense” inter-religious relations, for example, indicate that socio-psychological in- and out-group dynamics have already materialized in the sense that they already matter for political conflict (e.g. Seul 1999). Feelings of discrimination on the part of religious groups form another proxy for the salience of religious identities. Comparable to ethnic discrimination, religious discrimination can increase the likelihood of the onset of violent conflict (Gurr 2000; Fox 2004a: 90-93).

Taking into account this outline of the “mobilization hypothesis” our first hypothesis reads as follows:

H1: The onset of armed conflict is significantly connected to religious factors only when mobilization-prone religious structures in a given country are combined with evidence of politicization of religion.

Additionally, we argue that mobilization works better with regard to the type of conflict. Conflict-prone religious structures and politicization of religion should matter more for conflicts in which religion obviously plays a role, such as armed conflicts in which conflict parties differ by religious affiliations and/or religious incompatibilities are present (e.g. Toft 2007: 97, Svensson 2007: 936-937). Accordingly, the second hypothesis reads as follows:

H2: The impact of the “mobilization mechanism” is substantially stronger for the onset of religious armed conflict than for “general” armed conflict.

#### **4 Data and Empirical Strategy**

Given that many of the theoretically important religious factors have not been tested thus far, a new database on Religion in Sub-Saharan Africa (RSSA) is particularly useful for the purpose of this contribution. This database contains some 30 religion-specific variables, of which many are particularly important with regard to the testing of the mobilization hypothesis (see below).

The database covers the years 1990 to 2008 and includes all 48 countries of sub-Saharan Africa. Data were coded by year and we have a maximum of 909 observations per variable.<sup>5</sup> Usually, variables were constructed either dichotomously or on nominal or ordinal scales. We were keen to maintain a uniform, consistent basis of sources in order to avoid distorted information. We used various annual *Africa Yearbook* editions, Religious Freedom Reports and Human Rights Practices Country Reports (the latter two compiled by the U.S. Department of State) as well as Economist Intelligence Unit Country Reports published on (at least) a quarterly basis.

In order to test whether religious indicators have an impact on internal violence propensity, we employed two different dependent variables. The variable *conflict onset* (Hypothesis 1) was taken from the UCDP/PRIO Armed Conflict Onset Dataset (version 4/2010) to measure intra-state conflict onset. The dichotomous variable *conflict onset* has a value of 1 if there is a conflict onset with more than 25 annual battle-related deaths.<sup>6</sup> A total of 57 civil war events happened within the period under consideration (1990-2008).<sup>7</sup> In order to capture the religious overtones in conflict (Hypothesis 2), we employed another dichotomous dependent variable (*religious conflict onset*) that takes the value of 1 if at least one intra-state conflict onset happened in which the warring factions differed substantially according to their religious affiliation.<sup>8</sup> The variable encompasses a total of 26 onset-years in episodes in 13 different countries.

The explanatory variables included in this study describe the structural and politicized dimensions of the mobilization hypothesis. Regarding the religious structure, we include two continuous variables: First, we use the fractionalization index by Alesina et al. (2003) to measure religious heterogeneity (*fractionalization*). Second, we construct a polarization index of the inter-religious structure (Christians, Muslims, African Traditionalists) according to Montalvo/Reynal-Querol (2005) ranging from 0 to 1 (*polarization*).<sup>9</sup> In addition, we included several binary variables from the RSSA database in the regression tables. We coded whether religious identities overlap at least partially with ethnic, regional or social boundaries (*religious-ethnic overlap*, *religious-regional overlap*, *religious-social overlap*).<sup>10</sup> Additionally, we coded

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5 Eritrea became an independent state in 1993 (before: 47 states).

6 Usually, these are new conflicts. However, we also count new episodes of armed conflicts as onset if the conflict remained under 25 battle deaths for at least one year.

7 Following the suggestion made by Hegre and Sambanis (2006: 523), ongoing conflict years are coded as 0s instead of dropping them from the sample, as multiple conflicts happening in the same country are not uncommon.

8 We created a further variable for religious conflicts (religious conflict 2). It encompasses conflicts with a religious incompatibility. However, there are only 12 cases in seven countries rendering analysis less fruitful (see Table A3 in the Annex).

9 We have recalculated the values for all sub-Saharan countries on the basis of data provided by the World Christian Database.

10 Please note that this kind of parallel identity differs from differences in religious identities between the conflict parties. Here, we deal with overlaps of religious and ethnic/social identities in society, but not with overlaps of religious identities and the support base/members of the conflict parties.

three variables on religious dominance taking the value of 1 if at least 60% of a country's population adheres to Islam (*dominance islam*), Christianity (*dominance christ*) or one of the two (*dominance*).<sup>11</sup> Finally, we assessed if moderate or strong changes in the religious demography of a country occurred during the sample period (*demographic change*).

With regard to the politicized dimension of religion, we draw almost exclusively on new data collected in the RSSA database. Whether the inter-religious relations are contentious is considered by including the variable *tensions*. It is coded 1 if moderate or strong tensions exist in the relations between adherents of different religions in a country, and 0 otherwise. The binary variable *discrimination* measures whether a religious community feels discriminated against or not. In contrast, the variable *minority discrimination* does not measure the self-perception of a religious community but whether a minority religion is discriminated against objectively by government restrictions and laws. The variable draws on the categorical variable *m* of the Religion and State Data (Fox 2004b). Further dichotomous variables quantify escalations by religious actors or institutions (e.g. legitimization or incitement of violence) (*religious calls for violence*), and the legitimization of violence by violent actors referring to religion (*calls for violence*).

Finally, we measured the combined effect of structural and politicized conditions by creating variables which take the value of 1 if both the structural and politicized dimensions are given. For instance, the variable *dominance & discrimination* takes the value of 1 for societies in which the share of Muslims or Christians is greater than or equal to 60% (*dominance*) and a religious community feels discriminated against.<sup>12</sup>

Control variables were chosen in accordance with sensitivity and meta-analyses performed by Hegre and Sambanis (2006) and Dixon (2009). Given that our sample is restricted to relatively few cases (48 countries) and a short period of time (19 years), we decided to limit our base model to a total of seven control variables:<sup>13</sup> logarithm of total population (*log population*), GDP growth (*gdp growth*), logarithm of per capita GDP (*log gdppc*) (all from the World Bank African Development Indicators), regime durability (*durable*) measuring the years since the most recent regime change, the level of democracy (*polity2*) measured by the combined

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11 The coding is based on data on the inter-religious structure provided by the World Christian Database. Due to the fact that the share of African Traditionalists (ATR) does not exceed 50.5% in any country, no variable on ATR dominance is coded (see also Table A2 in the Annex).

12 In total, we coded six "combined variables": polarization75 & discrimination, polarization75 & tensions, dominance & discrimination, dominance & tensions, overlap & discrimination, overlap & tensions. Polarization75 is a dichotomous variable indicating whether a state is considered religiously polarized or not. It equals "1" if the country's religious polarization value exceeds the sample's 75<sup>th</sup> percentile. An overview of all the variables employed in this study is given in Table A1 of the Annex. Table A2 reports descriptive statistics.

13 Although oil exports are frequently mentioned as a robust correlate of civil war, we do not employ it as a control for three reasons. First, we had to limit the number of controls. Second, according to the sensitivity analysis by Hegre and Sambanis (2006: 533), oil does not belong to the highly robust correlates of civil war (which we use). Finally, our own pre-testing did not find oil to be robustly connected to civil war in Africa.

polity score (both from the Polity IV Project, see Jagers/Marshall 2009), as well as rough terrain (*lmtnest\_i*) (from Hegre/Sambanis 2006). In addition, a variable reflecting the duration since the last event/onset (*peace years*) was included in all models in order to minimize problems of temporal dependence on a history of conflict (Beck et al. 1998). Except for *peace years*, all other independent variables were lagged one year.<sup>14</sup>

## 5 Quantitative Findings

Table 1 presents the results of the logistic estimations for variables on the religious structure and both dependent variables.<sup>15</sup> In line with our expectations, we find that an overlap of religious identities with ethnic boundaries exhibits an increased conflict probability (Models 3 and 7 of Table 1). Parallel religious and ethnic boundaries increase the odds for the onset of armed conflict and religious conflict by approximately 2 and 11 times, respectively. This may be due to the fact that out-group differences become more salient and are more easily exploited.<sup>16</sup>

We further find that predominantly Muslim societies are more likely to experience armed conflicts but not religious armed conflict (Models 4 and 8 of Table 1). Expressed in odds ratio, the dominance of Islam in a country doubles the risk of armed conflict onset. Albeit statistically not significant, countries with a Christian dominance also bear an 18% higher risk of armed conflict onset. Only a high percentage share of adherents of ATR seems to reduce armed conflict risks slightly.

Our analysis also shows that religiously fractionalized and polarized countries seem to be less prone to armed conflict (Models 1 and 2 of Table 1). In addition, religious fractionalization also reduces the risk for religious conflict onset (Model 5 of Table 1). These results partly corroborate previous authors advocating the conflict-reducing effect of fractionalization and polarization. Esteban and Ray (2008), for example, suggest that (ethnic) polarization has a pacifying effect due to the large costs incurred whenever equally powerful groups face each other. Horowitz (1985) noted that the risk of internal violence decreases in highly homogeneous and highly heterogeneous societies, suggesting that a polarized structure is most conflict-prone. Collier and Hoeffler (1998) and Ellingsen (2000) corroborate this claim by showing that countries with a moderate amount of ethnic fractionalization are more likely to

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14 Likelihood Ratio Tests of the reported specification against several different nested models revealed that the applied full models have a proper specification. In addition, a stepwise inclusion of all independent variables as well as the variance inflated factor (VIF) indicated that the reported findings are unlikely to be driven by multi-collinearity.

15 In addition to the logit estimations, “rare-event logit models” as suggested by King and Zeng (2001) were equally performed for all models presented in this paper. The authors show that when binary dependent variables measure the occurrence of “rare events,” standard logit or probit estimations may produce biased coefficients.

16 Interestingly, the overlap of religion and social stratum (religious-social overlap) does not produce significant results.

experience civil war outbreak. Our findings on religious structures and conflict, however, are rather in line with Collier and Hoeffler's (2004) suggestion that it is neither fractionalization nor polarization but the contested dominance of one group (Muslims and, to some extent, Christians) that represents the highest armed conflict risk.

**Table 1: Conflict Onset and Religious Structure<sup>17</sup>**

|                                 | (1)<br>conflict<br>onset | (2)<br>conflict<br>onset | (3)<br>conflict<br>onset | (4)<br>conflict<br>onset | (5)<br>religious<br>conflict<br>onset | (6)<br>religious<br>conflict<br>onset | (7)<br>religious<br>conflict<br>onset | (8)<br>religious<br>conflict<br>onset |
|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| L1.fraction-<br>alization       | -2.037***<br>(0.751)     |                          |                          |                          | -1.747*<br>(1.034)                    |                                       |                                       |                                       |
| L1.polariza-<br>tion            |                          | -1.776***<br>(0.567)     |                          |                          |                                       | -0.493<br>(0.847)                     |                                       |                                       |
| L1.religious-<br>ethnic overlap |                          |                          | 0.633*<br>(0.338)        |                          |                                       |                                       | 2.412****<br>(0.704)                  |                                       |
| L1.domi-<br>nance islam         |                          |                          |                          | 0.737**<br>(0.346)       |                                       |                                       |                                       | 0.397<br>(0.485)                      |
| L1.log po-<br>pulation          | 0.231<br>(0.144)         | 0.164<br>(0.131)         | 0.0543<br>(0.130)        | 0.122<br>(0.126)         | 0.297<br>(0.207)                      | 0.222<br>(0.185)                      | 0.0227<br>(0.248)                     | 0.207<br>(0.181)                      |
| L1.gdp<br>growth                | 0.0191<br>(0.0142)       | 0.0255*<br>(0.0146)      | 0.0169<br>(0.0130)       | 0.0208<br>(0.0142)       | 0.0204*<br>(0.0115)                   | 0.0218*<br>(0.0118)                   | 0.0122<br>(0.0106)                    | 0.0210*<br>(0.0114)                   |
| L1.log<br>gdppc                 | -0.172<br>(0.221)        | -0.383**<br>(0.184)      | -0.322*<br>(0.195)       | -0.266<br>(0.214)        | -0.0879<br>(0.246)                    | -0.240<br>(0.215)                     | -0.271<br>(0.271)                     | -0.192<br>(0.235)                     |
| L1.durable                      | -0.0299*<br>(0.0174)     | -0.0169<br>(0.0163)      | -0.0184<br>(0.0174)      | -0.0256<br>(0.0169)      | -0.0557**<br>(0.0240)                 | -0.0454*<br>(0.0272)                  | -0.0411<br>(0.0295)                   | -0.0495**<br>(0.0245)                 |
| L1.polity2                      | 0.0134<br>(0.0276)       | 0.0179<br>(0.0291)       | 0.0370<br>(0.0302)       | 0.0164<br>(0.0269)       | 0.0148<br>(0.0355)                    | 0.0219<br>(0.0381)                    | 0.0638<br>(0.0426)                    | 0.0199<br>(0.0358)                    |
| L1.lmtnest_i                    | 0.148<br>(0.104)         | 0.0416<br>(0.101)        | 0.133<br>(0.114)         | 0.153<br>(0.105)         | 0.0736<br>(0.147)                     | 0.0108<br>(0.154)                     | 0.190<br>(0.225)                      | 0.0529<br>(0.144)                     |
| peace years                     | -0.102***<br>(0.0328)    | -0.0998***<br>(0.0328)   | -0.109***<br>(0.0352)    | -0.109***<br>(0.0340)    | -0.121**<br>(0.0483)                  | -0.126**<br>(0.0512)                  | -0.0805*<br>(0.0488)                  | -0.125**<br>(0.0509)                  |
| _cons                           | -3.783<br>(2.701)        | -1.454<br>(2.555)        | -1.579<br>(2.200)        | -2.757<br>(2.497)        | -5.692*<br>(3.416)                    | -4.186<br>(3.076)                     | -3.547<br>(3.155)                     | -4.669<br>(3.146)                     |
| N                               | 750                      | 750                      | 750                      | 750                      | 750                                   | 750                                   | 750                                   | 750                                   |
| pseudo R <sup>2</sup>           | 0.085                    | 0.094                    | 0.076                    | 0.077                    | 0.087                                 | 0.078                                 | 0.144                                 | 0.078                                 |

Robust standard errors in parentheses, \* p<0.10, \*\* p<0.05, \*\*\* p<0.01, \*\*\*\* p<0.001

Source: Authors' compilation.

The remaining, non-religious control variables are largely in line with the findings of previous studies. While a rough terrain (*lmtnest\_i*) and a large population (*log population*) increase the risk of conflict onset, stable and peaceful regimes (*durable*, *peace years*) and economically

<sup>17</sup> Further variables on the religious structure such as change of (religious) demography, the inter-religious structure (islam, christ, atr), and overlap of religious and regional boundaries (religious-regional overlap, religious-social overlap) – not reported here due to space constraints – were considered by our estimations. The majority does not reach statistical significance. Noteworthy exceptions are parallel religious and regional boundaries increasing the risk of religious conflict (significant at the 10% level). ATR percentage share show negative and significant results as well and, expressed in odds ratio, reduce the risk of armed conflict and religious armed conflict by 5% and 6%, respectively.

rich countries in per capita terms (*log gdppc*) are less likely to experience the onset of armed conflict. Note, however, that only regime stability and per capita income reach statistical significance at conventional levels. The coefficient's sign for the growth of national income (*gdp growth*) and regime type (*polity2*) seems to contradict some previous studies. This may be due to the restriction on a sample of sub-Saharan countries and a relatively short sample period compared to other quantitative civil war studies.

Next, we included variables indicating actual politicization of religion in the base model (Table 2). We asked, for example, whether countries characterized by contentious inter-religious relations run a higher risk of armed conflict. In general, the included variables do not reach statistical significance.<sup>18</sup> The only exception is *tensions*; the presence of inter-religious relations characterized by moderate or severe tensions entails a higher armed conflict risk (Model 1 of Table 2). Odds ratios reveal that quarrelsome inter-religious relations make internal violence 2.6 times more likely.

**Table 2: Conflict Onset and Politicized Religion**

|                           | (1)<br>conflict onset | (2)<br>conflict onset  | (3)<br>conflict onset  | (4)<br>religious<br>conflict onset | (5)<br>religious<br>conflict onset | (6)<br>religious<br>conflict onset |
|---------------------------|-----------------------|------------------------|------------------------|------------------------------------|------------------------------------|------------------------------------|
| L1.tensions               | 0.954*<br>(0.563)     |                        |                        | 0.878<br>(0.804)                   |                                    |                                    |
| L1.discrimi-<br>nation    |                       | -0.472<br>(0.405)      |                        |                                    | 0.199<br>(0.461)                   |                                    |
| L1. calls for<br>violence |                       |                        | -0.461<br>(0.810)      |                                    |                                    | 0.0504<br>(0.849)                  |
| L1.log popu-<br>lation    | 0.0499<br>(0.151)     | 0.189<br>(0.147)       | 0.132<br>(0.127)       | 0.119<br>(0.224)                   | 0.169<br>(0.191)                   | 0.201<br>(0.180)                   |
| L1.gdp<br>growth          | 0.0520<br>(0.0327)    | 0.0236*<br>(0.0140)    | 0.0203<br>(0.0136)     | 0.0398<br>(0.0372)                 | 0.0188*<br>(0.0112)                | 0.0203*<br>(0.0113)                |
| L1.log gdppc              | -0.360<br>(0.311)     | -0.271<br>(0.192)      | -0.257<br>(0.194)      | -0.175<br>(0.383)                  | -0.199<br>(0.227)                  | -0.206<br>(0.214)                  |
| L1.durable                | -0.0177<br>(0.0276)   | -0.0206<br>(0.0170)    | -0.0228<br>(0.0173)    | -0.0774*<br>(0.0466)               | -0.0476*<br>(0.0273)               | -0.0470*<br>(0.0266)               |
| L1.polity2                | 0.0311<br>(0.0351)    | 0.0169<br>(0.0288)     | 0.0195<br>(0.0291)     | -0.000441<br>(0.0432)              | 0.0245<br>(0.0385)                 | 0.0224<br>(0.0373)                 |
| L1.lmtnest_i              | 0.0105<br>(0.113)     | 0.0967<br>(0.100)      | 0.0731<br>(0.100)      | -0.0146<br>(0.130)                 | 0.0140<br>(0.148)                  | 0.0221<br>(0.148)                  |
| peace years               | -0.113***<br>(0.0390) | -0.114****<br>(0.0337) | -0.119****<br>(0.0352) | -0.109*<br>(0.0562)                | -0.124**<br>(0.0514)               | -0.124**<br>(0.0527)               |
| _cons                     | -1.633<br>(3.060)     | -3.418<br>(2.738)      | -2.613<br>(2.407)      | -3.859<br>(3.945)                  | -3.935<br>(3.192)                  | -4.381<br>(2.940)                  |
| N                         | 555                   | 750                    | 750                    | 555                                | 750                                | 750                                |
| pseudo R <sup>2</sup>     | 0.100                 | 0.070                  | 0.068                  | 0.106                              | 0.077                              | 0.076                              |

Robust standard errors in parentheses; \* p<0.10, \*\* p<0.05, \*\*\* p<0.01, \*\*\*\* p<0.001

Source: Authors' compilation.

<sup>18</sup> We further tested the effect of religious discrimination against minority religions (minority discrimination), and escalation by religious actors and/or institutions (religious calls for violence). None of them reached statistical significance.

In the next two tables (Tables 3 and 4), we return to our main hypotheses. We expect that the onset of armed conflict is significantly connected to religion only when the proper religious structures (e.g. high religious polarization or dominance, overlap of religious identities with ethnic boundaries) in a given country are combined with evidence of politicization. In order to test this proposition, we combined the polarization indices of inter-religious structure and dominance of Islam or Christianity (as well as the coexistence of religious and ethnic boundaries) with two “politicized” variables (*discrimination*, *tensions*). For this purpose, we created dummy variables equaling 1 if, for example, a society is characterized by religious dominance (or religious polarization, coexistence of religious and ethnic boundaries) and – at the same time – one group experiences subjective feelings of discrimination (or inter-religious relations are characterized by anywhere from minor to severe tensions).

**Table 3: Combined Effects of the Religious Structure and Politicized Religion (1)**

|                                             | (1)<br>conflict<br>onset | (2)<br>conflict<br>onset | (3)<br>conflict<br>onset | (4)<br>conflict<br>onset | (5)<br>religious<br>conflict<br>onset | (6)<br>religious<br>conflict<br>onset | (7)<br>religious<br>conflict<br>onset | (8)<br>religious<br>conflict<br>onset |
|---------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| L1.polarizati<br>on75                       | -0.491<br>(0.347)        |                          | -0.663*<br>(0.398)       |                          | 0.151<br>(0.440)                      |                                       | 0.597<br>(0.535)                      |                                       |
| L1.discrimi-<br>nation                      | -0.308<br>(0.386)        |                          |                          |                          | 0.151<br>(0.425)                      |                                       |                                       |                                       |
| L1.polarizati<br>on75 & dis-<br>crimination |                          | -0.0639<br>(0.447)       |                          |                          |                                       | 0.964*<br>(0.512)                     |                                       |                                       |
| L1.tensions                                 |                          |                          | 1.005*<br>(0.547)        |                          |                                       |                                       | 0.897<br>(0.845)                      |                                       |
| L1.polarizati<br>on75 & ten-<br>sions       |                          |                          |                          | -0.2981<br>(0.4248)      |                                       |                                       |                                       | 1.0564**<br>(0.5342)                  |
| L1.log popu-<br>lation                      | 0.178<br>(0.150)         | 0.118<br>(0.133)         | 0.0942<br>(0.166)        | 0.1261<br>(0.1632)       | 0.168<br>(0.191)                      | 0.0689<br>(0.171)                     | 0.0682<br>(0.217)                     | 0.0452<br>(0.2084)                    |
| L1.gdp<br>growth                            | 0.0247*<br>(0.0145)      | 0.0204<br>(0.0139)       | 0.0567*<br>(0.0330)      | 0.0514<br>(0.0336)       | 0.0184*<br>(0.0111)                   | 0.0138<br>(0.0109)                    | 0.0363<br>(0.0347)                    | 0.0343<br>(0.0344)                    |
| L1.log gdppc                                | -0.340*<br>(0.199)       | -0.281<br>(0.197)        | -0.408<br>(0.297)        | -0.4088<br>(0.3266)      | -0.171<br>(0.236)                     | -0.119<br>(0.220)                     | -0.0747<br>(0.417)                    | -0.0444<br>(0.4466)                   |
| L1.durable                                  | -0.0177<br>(0.0169)      | -0.0211<br>(0.0177)      | -0.0110<br>(0.0283)      | -0.0208<br>(0.0284)      | -0.0491*<br>(0.0296)                  | -0.0522*<br>(0.0282)                  | -0.0857*<br>(0.0499)                  | -0.0924*<br>(0.0509)                  |
| L1.polity2                                  | 0.0221<br>(0.0295)       | 0.0229<br>(0.0286)       | 0.0358<br>(0.0357)       | 0.0283<br>(0.0366)       | 0.0215<br>(0.0417)                    | 0.0166<br>(0.0403)                    | -0.00858<br>(0.0489)                  | -0.0168<br>(0.0499)                   |
| L1.lmtnest_i                                | 0.0758<br>(0.104)        | 0.0814<br>(0.100)        | 0.00767<br>(0.115)       | 0.0659<br>(0.1086)       | 0.0208<br>(0.156)                     | 0.0194<br>(0.151)                     | -0.00164<br>(0.135)                   | 0.0106<br>(0.1318)                    |
| peace years                                 | -0.112***<br>(0.0333)    | -0.119***<br>(0.0358)    | -0.115***<br>(0.0384)    | -0.126***<br>(0.0389)    | -0.122**<br>(0.0529)                  | -0.104*<br>(0.0552)                   | -0.0963<br>(0.0608)                   | -0.0896**<br>(0.0600)                 |
| _cons                                       | -2.739<br>(2.849)        | -2.292<br>(2.449)        | -1.936<br>(3.292)        | -1.7316<br>(3.4105)      | -4.148<br>(3.102)                     | -3.031<br>(2.730)                     | -3.960<br>(3.611)                     | -3.2056<br>(3.4760)                   |
| N                                           | 750                      | 750                      | 555                      | 555                      | 750                                   | 750                                   | 555                                   | 750                                   |
| pseudo R <sup>2</sup>                       | 0.076                    | 0.067                    | 0.111                    | 0.0901                   | 0.077                                 | 0.091                                 | 0.114                                 | 0.120                                 |

Robust standard errors in parentheses; \* p<0.10, \*\* p<0.05, \*\*\* p<0.01, \*\*\*\* p<0.001

Source: Authors' compilation.

Contrary to our expectations, a combined effect of polarization – in this case, the fourth quartile (*polarization75*) – and religious discrimination (*polarization75 & discrimination*) as well as contentious inter-religious relations and religious discrimination (*polarization75 & tensions*) on armed conflict cannot be observed (Models 2 and 4 of Table 3). However, in religiously highly polarized societies, the risk of religious conflict onset is significantly increased if religious communities feel discriminated against or the inter-religious relations are burdened with tensions (Models 6 and 8 of Table 3). Expressed in odds ratio, the presence of polarization with discrimination and contentious inter-religious relations increase the odds for religious conflicts by approximately 2.6 and 2.4 times, respectively.

With respect to religious dominance, Table 4 evidences that religious dominance exacerbates the risk for armed conflicts when there are simultaneous contentious inter-religious relations (*dominance & tensions*) as shown by Model 4. Note, however, that a possible conditional effect of polarization and contentious inter-religious relations on armed conflict is rather weak, as the effect size of *tensions* by itself is higher than that of *dominance & tensions*.

**Table 4: Combined Effects of Religious Structure and Politicized Religion (2)**

|                                       | (1)<br>conflict<br>onset | (2)<br>conflict<br>onset | (3)<br>conflict<br>onset | (4)<br>conflict<br>onset | (5)<br>religious<br>conflict<br>onset | (6)<br>religious<br>conflict<br>onset | (7)<br>religious<br>conflict<br>onset | (8)<br>religious<br>conflict<br>onset |
|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| L1.dominance                          | 0.611*<br>(0.322)        |                          | 0.881**<br>(0.379)       |                          | 0.0486<br>(0.428)                     |                                       | -0.309<br>(0.537)                     |                                       |
| L1.discrimi-<br>nation                | -0.270<br>(0.391)        |                          |                          |                          | 0.213<br>(0.436)                      |                                       |                                       |                                       |
| L1.dominance<br>& discrimina-<br>tion |                          | -0.787<br>(0.656)        |                          |                          |                                       | -1.286<br>(1.057)                     |                                       |                                       |
| L1.tensions                           |                          |                          | 1.152**<br>(0.555)       |                          |                                       |                                       | 0.831<br>(0.795)                      |                                       |
| L1.dominance<br>& tensions            |                          |                          |                          | 0.927**<br>(0.380)       |                                       |                                       |                                       | -0.285<br>(0.540)                     |
| L1.log popu-<br>lation                | 0.183<br>(0.149)         | 0.139<br>(0.123)         | 0.106<br>(0.163)         | 0.134<br>(0.160)         | 0.170<br>(0.193)                      | 0.242<br>(0.171)                      | 0.0926<br>(0.227)                     | 0.141<br>(0.221)                      |
| L1.gdp<br>growth                      | 0.0249*<br>(0.0145)      | 0.0202<br>(0.0134)       | 0.0636*<br>(0.0357)      | 0.0614*<br>(0.0357)      | 0.0189*<br>(0.0113)                   | 0.0207*<br>(0.0112)                   | 0.0371<br>(0.0360)                    | 0.0362<br>(0.0373)                    |
| L1.log gdppc                          | -0.366*<br>(0.196)       | -0.241<br>(0.192)        | -0.471*<br>(0.285)       | -0.453<br>(0.287)        | -0.209<br>(0.231)                     | -0.150<br>(0.213)                     | -0.103<br>(0.411)                     | -0.149<br>(0.409)                     |
| L1.durable                            | -0.0195<br>(0.0165)      | -0.0238<br>(0.0173)      | -0.0121<br>(0.0262)      | -0.0127<br>(0.0270)      | -0.0473*<br>(0.0281)                  | -0.0509*<br>(0.0271)                  | -0.0812<br>(0.0503)                   | -0.0850*<br>(0.0479)                  |
| L1.polity2                            | 0.0169<br>(0.0287)       | 0.0132<br>(0.0301)       | 0.0258<br>(0.0332)       | 0.0257<br>(0.0351)       | 0.0249<br>(0.0395)                    | 0.00563<br>(0.0399)                   | -0.00124<br>(0.0451)                  | -0.00670<br>(0.0447)                  |
| L1.lmtnest_i                          | 0.0646<br>(0.105)        | 0.0940<br>(0.0993)       | -0.0269<br>(0.123)       | 0.00774<br>(0.120)       | 0.0113<br>(0.159)                     | 0.0422<br>(0.145)                     | 0.00625<br>(0.148)                    | 0.0527<br>(0.140)                     |
| peace years                           | -0.109***<br>(0.0331)    | -0.109***<br>(0.0339)    | -0.111***<br>(0.0375)    | -0.119***<br>(0.0364)    | -0.125**<br>(0.0522)                  | -0.112**<br>(0.0532)                  | -0.103*<br>(0.0596)                   | -0.112**<br>(0.0544)                  |
| _cons                                 | -3.212<br>(2.852)        | -2.834<br>(2.415)        | -2.605<br>(3.256)        | -2.114<br>(3.341)        | -3.918<br>(3.172)                     | -5.345*<br>(3.009)                    | -3.712<br>(3.813)                     | -3.601<br>(4.115)                     |
| N                                     | 750                      | 750                      | 555                      | 555                      | 750                                   | 750                                   | 555                                   | 555                                   |
| pseudo R <sup>2</sup>                 | 0.079                    | 0.071                    | 0.120                    | 0.111                    | 0.077                                 | 0.085                                 | 0.107                                 | 0.098                                 |

Robust standard errors in parentheses; \* p<0.10, \*\* p<0.05, \*\*\* p<0.01, \*\*\*\* p<0.001

Source: Authors' compilation.

Finally, Table 5 summarizes the findings for the combined effects of parallel religious and ethnic boundaries and religious discrimination or contentious inter-religious relations. As can be observed, especially the coexistence of parallel ethno-religious boundaries with contentious inter-religious relations seems to have a strong positive and highly significant effect on religious conflict onset (Model 8). When African societies are characterized by overlaps of ethnic and religious boundaries as well as the presence of inter-religious tensions, the potential for religious conflicts increases by more than 9 times. A similar combined effect for contentious inter-religious relations and religious discrimination cannot be found.<sup>19</sup>

**Table 5: Combined Effects of Religious Structure and Politicized Religion (3)**

|                                     | (1)<br>conflict<br>onset   | (2)<br>conflict<br>onset | (3)<br>conflict<br>onset | (4)<br>conflict<br>onset | (5)<br>religious<br>conflict<br>onset | (6)<br>religious<br>conflict<br>onset | (7)<br>religious<br>conflict<br>onset | (8)<br>religious<br>conflict on-<br>set |
|-------------------------------------|----------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------------|
| L1.religious-<br>ethnic overlap     | 0.941***<br>(0.330)        |                          | 0.511<br>(0.432)         |                          | 2.569***<br>(0.666)                   |                                       | 3.139***<br>(1.197)                   |                                         |
| L1.discrimi-<br>nation              | -0.909**<br>(0.431)        |                          |                          |                          | -0.516<br>(0.577)                     |                                       |                                       |                                         |
| L1.overlap &<br>discrimina-<br>tion |                            | -0.148<br>(0.419)        |                          |                          |                                       | 0.525<br>(0.485)                      |                                       |                                         |
| L1.tensions                         |                            |                          | 0.942*<br>(0.568)        |                          |                                       |                                       | 1.102<br>(0.826)                      |                                         |
| L1. overlap<br>&_tensions           |                            |                          |                          | 0.849*<br>(0.441)        |                                       |                                       |                                       | 2.239***<br>(0.781)                     |
| L1.log popu-<br>lation              | 0.183<br>(0.158)           | 0.134<br>(0.144)         | 0.0203<br>(0.150)        | 0.0266<br>(0.149)        | 0.122<br>(0.301)                      | 0.113<br>(0.186)                      | -0.0461<br>(0.278)                    | 0.00750<br>(0.226)                      |
| L1.gdp<br>growth                    | 0.0221<br>(0.0135)         | 0.0213<br>(0.0139)       | 0.0460<br>(0.0315)       | 0.0424<br>(0.0310)       | 0.0151<br>(0.0108)                    | 0.0158<br>(0.0111)                    | 0.0214<br>(0.0321)                    | 0.0263<br>(0.0321)                      |
| L1.log gdppc                        | -0.376**<br>(0.188)        | -0.279<br>(0.195)        | -0.444<br>(0.304)        | -0.506<br>(0.317)        | -0.359<br>(0.308)                     | -0.180<br>(0.225)                     | -0.315<br>(0.433)                     | -0.345<br>(0.395)                       |
| L1.durable                          | -0.0148<br>(0.0165)        | -0.0212<br>(0.0173)      | -0.0158<br>(0.0286)      | -0.0187<br>(0.0299)      | -0.0378<br>(0.0298)                   | -0.0479*<br>(0.0278)                  | -0.0888<br>(0.0653)                   | -0.0853<br>(0.0637)                     |
| L1.polity2                          | 0.0340<br>(0.0309)         | 0.0209<br>(0.0291)       | 0.0472<br>(0.0383)       | 0.0527<br>(0.0381)       | 0.0632<br>(0.0430)                    | 0.0294<br>(0.0391)                    | 0.0741<br>(0.0525)                    | 0.0577<br>(0.0486)                      |
| L1.lmtnest_i                        | 0.189<br>(0.115)           | 0.0826<br>(0.0995)       | 0.0328<br>(0.125)        | 0.0556<br>(0.123)        | 0.208<br>(0.220)                      | 0.0125<br>(0.152)                     | 0.160<br>(0.252)                      | 0.0523<br>(0.200)                       |
| peace years                         | -<br>0.0987***<br>(0.0334) | -0.119***<br>(0.0352)    | -0.101**<br>(0.0428)     | -0.0955**<br>(0.0453)    | -0.0788<br>(0.0482)                   | -0.118**<br>(0.0526)                  | -0.0540<br>(0.0528)                   | -0.0597<br>(0.0564)                     |
| _cons                               | -3.469<br>(2.573)          | -2.533<br>(2.647)        | -1.086<br>(2.873)        | -0.229<br>(2.924)        | -4.653<br>(3.708)                     | -3.274<br>(3.010)                     | -3.689<br>(3.437)                     | -2.203<br>(3.236)                       |
| N                                   | 750                        | 750                      | 555                      | 555                      | 750                                   | 750                                   | 555                                   | 555                                     |
| Pseudo R <sup>2</sup>               | 0.089                      | 0.067                    | 0.106                    | 0.104                    | 0.148                                 | 0.080                                 | 0.196                                 | 0.176                                   |

Robust standard errors in parentheses; \* p<0.10, \*\* p<0.05, \*\*\* p<0.01, \*\*\*\* p<0.001

Source: Authors' compilation.

<sup>19</sup> We further tested the combined effects of several structural variables (such as fractionalization and demographic change) with other politicized variables (such as discrimination, tensions, and calls for violence). None of them reached statistical significance and are not reported due to space constraints.

## 6 Discussion

The empirical data provide an answer to our key research question on whether religious factors impact the likelihood of armed conflict onset in Africa: indeed, they do. Although religious variables certainly do not provide an exhaustive explanation of armed conflict in Africa, some variables such as overlapping ethnic and religious identities apparently exert substantial impact. “Overlaps” and other variables (such as inter-religious tensions and perceived discrimination) have been tested for the very first time, which may explain why many previous studies have not found significant impact of religious factors in Africa.

With regard to our two hypotheses, inspired by the idea of a “mobilization hypothesis,” we find that Hypothesis 1 must be modified. It is not exclusively the interaction of structural and politicization variables that returns the best results. While politicization variables – indicators that capture feelings of discrimination and actual behavior of religious and violent actors – almost never independently impact armed conflict onset (exception: inter-religious tensions), structures characterized by an overlap of religious and ethnic boundaries or the dominance of one religious group (Islam) are independently significant variables. Combined variables – such as overlaps of polarization and identity under the condition of discrimination or tensions – also count. Except for the combined effect of polarization with tensions and discrimination, there is little evidence that the combined variables are much stronger than the effects of particular structural variables alone.

Regarding Hypothesis 2 – the differences between armed conflict and religious armed conflict – results are not completely in line with our expectations either. Generally, religious factors do not have stronger influence on religious conflict than on armed conflict in general. An exception is the overlap of religious and ethnic boundaries which is significant for both types of conflict but stronger for religious conflict onset. More importantly, however, the best models and variables for the two types of conflict differ.<sup>20</sup> Religious tensions and dominance (also in combination) mainly impact armed conflict in general, while religious polarization is only a positive predictor for religious armed conflict – and this holds true only when it is combined with either *discrimination* or *religious tensions*.

In terms of theory, our results are far from being incompatible with the mobilization hypothesis, though they do not fit completely as expected. In general, we have evidence that particular structures are conflict-prone (*identity overlaps & dominance*), at least one (*polarization*) only if combined with variables indicating behavioral dimension and/or mobilization (*discrimination* and *tensions*). Generally, however, the evidence for the role of variables indicating politicization, especially verbal calls for violence by religious actors, is less substantial

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20 For religious conflict onset (2), an armed conflict with religious incompatibility, the following variables proved significant: religious-ethnic overlap (positive, 5% level), demographic change (negative, 10%), tensions (positive, 1%), religious calls for violence (positive, 5%). Positive significant results were also returned for the following combinations (all at the 5% level): tensions & religious-ethnic overlap, tensions & polarization, polarization & discrimination, polarization & religious calls for violence.

than expected. An at least partial solution to this puzzle stems from the findings on the substantial role of overlapping ethnic and religious identities. Many conflicts in which the warring factions differ by religious identity are at the same time ethnic conflicts, and the politicization and mobilization may be found in the realm of ethnicity.<sup>21</sup> Consider the case of Côte d'Ivoire: religious differences add to the ethno-regional differences between North and South, and they were mobilized in the field of ethnicity rather than religion (Nordas 2010).

## 7 Conclusion

The religiously diverse societies south of the Sahara and the religious overtones in a number of African conflicts show the importance of conducting empirical studies such as the one presented here. Most global quantitative studies limit their analysis to demographic variables, and systematic studies on Africa are completely absent. Case studies study the religion–conflict link more closely but focus on a limited number of cases. The questions thus remain of whether religious factors significantly impact the onset of armed conflict in Africa, and what may explain the religious overtones in some of these conflicts.

The utility of the unique RSSA database is demonstrated by the results of a causal analysis employing logit regressions. Though religion does not explain everything, findings lend empirical support to the idea that religious variables substantially impact (religious) armed conflict in Africa.

Theoretically, results are roughly in line with the mobilization hypothesis which suggests that certain demographic structures are conflict-prone but have to be politicized in order to trigger violent conflict. We have identified particular religious structures as conflict-prone. Religious and ethnic identity overlaps are significant predictors for both armed and religious armed conflict, while dominance only counts for armed conflict. Polarization only proves significant if combined with variables exceeding pure structures and containing an element of politicization (*discrimination* and *tension*). Particularly, the strong role of overlapping ethnic and religious identities, alone and in combination, calls for future research. This finding suggests that religious armed conflicts are often at the same time ethnic conflicts, and mobilization of identities may mainly work through “ethnic channels.” Future research should therefore engage in a more in-depth investigation of the interaction of ethnicity and religion in conflicts and politics general.

Many challenges for future work persist. For instance, the database allows for many more research questions to be investigated (ones that were beyond the scope of this paper). This refers to other dependent variables (e.g. incidence, duration, termination, intensity, “re-

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21 This idea is supported by the finding that only in conflicts with religious incompatibilities – where religious ideas are contested – are verbal calls for violence by religious leaders significant (see FN 19). Only when genuinely religious ideas are at stake in the conflict does escalation by religious leaders become important – but not when conflict parties differ simply by religious affiliation.

religious violence,” non-conflict variables) and other models including variables that, for instance, capture the “bright side” of religion such as the impact of inter-religious networks or religious peace initiatives.

Second, we concede that our database contains relatively few observations – at least if multiple regressions are the methodology of choice. Hence, it would certainly be useful to expand the coverage in terms of time and geography (namely, Asia, Latin America, North Africa and the Middle East). It might also be worthwhile to code data at the sub-national level and to look at the micro level. Given recent developments in countries such as Nigeria, Somalia and the Côte d’Ivoire (let alone countries such as Afghanistan, Iraq, India and Pakistan), it will remain particularly pertinent to further study the religion–conflict link, and not only in Africa.

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## Annex

Table A1: Variable Definitions and Data Sources

| <i>Variable</i>              | <i>Definition</i>                                                                                                                                               | <i>Source</i>                                                                 |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| conflict onset               | Armed conflict onset (> 25 battle deaths) according to UCDP/PRIO onset data (v. 4-2010), coded 1 if at least one onset occurred in a given year and 0 otherwise | Harbom/Wallensteen 2009; Gleditsch et al. 2002                                |
| religious conflict onset     | Armed conflict onset with conflict parties differing by religious affiliation, coded 1 if at least one onset occurred in a given year and 0 otherwise           | Own coding on the basis of UCDP/PRIO (RSSA)                                   |
| religious conflict onset (2) | Armed conflict onset with religious incompatibility, coded 1 if at least one onset occurred in a given year and 0 otherwise                                     | Own coding on the basis of UCDP/PRIO (RSSA)                                   |
| demographic change           | Coded 1 if moderate or strong changes in religious demography (relative size of groups) occurred and 0 otherwise                                                | Own coding (RSSA)                                                             |
| fractionalization            | Religious fractionalization index                                                                                                                               | Alesina et al. 2003, missing years imputed                                    |
| polarization                 | Polarization index of inter-religious structure (Christians, Muslims, African Traditional)                                                                      | Own coding (data: World Christian Database)                                   |
| polarization75               | Third quartile of <i>polarization</i>                                                                                                                           | Own coding                                                                    |
| religious-ethnic overlap     | Coded 1 if religious identities overlap at least partially with ethnic boundaries and 0 otherwise                                                               | Own coding (RSSA)                                                             |
| religious-regional overlap   | Coded 1 if religious identities overlap at least partially with regional boundaries and 0 otherwise                                                             | Own coding (RSSA)                                                             |
| religious-social overlap     | Coded 1 if religious identities overlap at least partially with social boundaries and 0 otherwise                                                               | Own coding (RSSA)                                                             |
| ATR                          | Inter-religious structure, percentage share of adherents to African Traditional Religions                                                                       | Own coding (data: World Christian Database)                                   |
| Islam                        | Inter-religious structure, percentage share of adherents to Islam                                                                                               | Own coding (data: World Christian Database)                                   |
| Christ                       | Inter-religious structure, percentage share of adherents to the Christian church                                                                                | Own coding (data: World Christian Database)                                   |
| dominance christ             | Coded 1 if the percentage share of Christians exceeds 60% and 0 otherwise                                                                                       | Own coding (data: World Christian Database)                                   |
| dominance islam              | Coded 1 if the percentage share of Muslims exceeds 60% and 0 otherwise                                                                                          | Own coding (data: World Christian Database)                                   |
| dominance                    | Coded 1 if the percentage share of Muslims or Christians exceeds 60% and 0 otherwise                                                                            | Own coding (data: World Christian Database)                                   |
| tensions                     | Inter-religious relations (moderate or strong tension present)                                                                                                  | Own coding (RSSA)                                                             |
| discrimination               | Coded 1 if a religious community feels discriminated and 0 otherwise                                                                                            | Own coding (RSSA)                                                             |
| minority discrimination      | Coded 1 if minority religions are discrimination and 0 otherwise                                                                                                | Binary version of variable <i>m</i> from Fox 2004 (own coding from 2003-2008) |

| <i>Variable</i>                 | <i>Definition</i>                                                                                                                                                                                               | <i>Source</i>                              |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| calls for violence              | Coded 1 if a (secular) conflict parties/violent actors legitimize violence referring to religious ideas/institutions/elites and 0 otherwise                                                                     | Own coding (RSSA)                          |
| religious calls for violence    | Coded 1 if escalation by religious actors/institutions (e.g. degrading of (adherents of) other beliefs/non believers, legitimization or incitement of violence, and active engagement) occurred and 0 otherwise | Own coding (RSSA)                          |
| polarization75 & discrimination | Combined effect of <i>polarization75</i> and <i>discrimination</i> , takes a value of 1 if both variables are coded 1 and 0 otherwise                                                                           | Own coding                                 |
| polarization75 & tensions       | Combined effect of <i>polarization_p75</i> and <i>tensions</i> , takes a value of 1 if both variables are coded 1 and 0 otherwise                                                                               | Own coding                                 |
| dominance & discrimination      | Combined effect of <i>dominance</i> and <i>discrimination</i> , takes a value of 1 if both variables are coded 1 and 0 otherwise                                                                                | Own coding                                 |
| dominance & tensions            | Combined effect of <i>dominance</i> and <i>tensions</i> , takes a value of 1 if both variables are coded 1 and 0 otherwise                                                                                      | Own coding                                 |
| overlap & discrimination        | Combined effect of <i>religious-ethnic overlap</i> and <i>discrimination</i> , takes a value of 1 if both variables are coded 1 and 0 otherwise                                                                 | Own coding                                 |
| overlap & tensions              | Combined effect of <i>religious-ethnic overlap</i> and <i>tensions</i> , takes a value of 1 if both variables are coded 1 and 0 otherwise                                                                       | Own coding                                 |
| log population                  | Log version of total population                                                                                                                                                                                 | World Bank: African Development Indicators |
| gdp growth                      | GDP growth (annual %)                                                                                                                                                                                           | World Bank: African Development Indicators |
| log gdppc                       | Log version of GDP per capita (constant 2000 USD)                                                                                                                                                               | World Bank: African Development Indicators |
| durable                         | Regime durability, years since most recent regime change                                                                                                                                                        | Jagers/Marshall 2009                       |
| polity2                         | Combined polity score from the Polity IV Project (autocracy and democracy index)                                                                                                                                | Jagers/Marshall 2009                       |
| lmtnest_I                       | Rough terrain (such as mountainous terrain)                                                                                                                                                                     | Hegre/Sambanis 2006, missing years imputed |
| peace years                     | Years since last onset of dependent variable                                                                                                                                                                    | Own coding                                 |

**Table A2: Descriptive Statistics**

| <i>Variable</i>                            | <i>Observations</i> | <i>Mean</i> | <i>Standard Deviation</i> | <i>Minimum</i> | <i>Maximum</i> |
|--------------------------------------------|---------------------|-------------|---------------------------|----------------|----------------|
| conflict onset                             | 909                 | .0627063    | .2425674                  | 0              | 1              |
| religious conflict onset                   | 909                 | .0286029    | .1667793                  | 0              | 1              |
| religious conflict onset (2)               | 909                 | .0132013    | .1141989                  | 0              | 1              |
| demographic change                         | 909                 | .1474147    | .354714                   | 0              | 1              |
| fractionalization                          | 909                 | .5023618    | .254891                   | .0028          | .8603          |
| polarization                               | 909                 | .5907701    | .3003853                  | .04            | .99            |
| polarization_p75                           | 909                 | .310231     | .4628427                  | 0              | 1              |
| religious-ethnic overlap                   | 909                 | .4565457    | .4983824                  | 0              | 1              |
| religious-regional overlap                 | 909                 | .6446645    | .4788784                  | 0              | 1              |
| religious-social overlap                   | 909                 | .1881188    | .3910222                  | 0              | 1              |
| ATR                                        | 909                 | 15.37625    | 15.18508                  | 0              | 50.5           |
| Islam                                      | 909                 | 30.29107    | 33.42196                  | 0              | 99.09          |
| Christ                                     | 909                 | 51.88396    | 34.0492                   | .27            | 96.5           |
| dominance christ                           | 909                 | .4389439    | .4965313                  | 0              | 1              |
| dominance islam                            | 909                 | .2090209    | .4068332                  | 0              | 1              |
| dominance                                  | 909                 | .6479648    | .4778678                  | 0              | 1              |
| tensions                                   | 713                 | .6535764    | .4761641                  | 0              | 1              |
| discrimination                             | 909                 | .2750275    | .446774                   | 0              | 1              |
| minority discrimination                    | 865                 | .5479769    | .4979808                  | 0              | 1              |
| calls for violence                         | 909                 | .0638064    | .2445423                  | 0              | 1              |
| religious calls for violence               | 909                 | .1320132    | .3386915                  | 0              | 1              |
| polarization75 & discrimination            | 909                 | .1276128    | .3338418                  | 0              | 1              |
| polarization75 & tensions                  | 713                 | .1870187    | .3901412                  | 0              | 1              |
| dominance & tensions                       | 713                 | .1177118    | .3224439                  | 0              | 1              |
| dominance & tensions                       | 713                 | .3548387    | .4788003                  | 0              | 1              |
| overlap & discrimination                   | 909                 | .20022      | .4003852                  | 0              | 1              |
| overlap & tensions                         | 713                 | .3211781    | .4672568                  | 0              | 1              |
| log population                             | 909                 | 15.47418    | 1.577116                  | 11.15625       | 18.8349        |
| gdp growth                                 | 866                 | 3.834566    | 8.185424                  | -51.03086      | 106.2798       |
| log gdppc                                  | 867                 | 6.113924    | 1.062943                  | 4.130945       | 9.070162       |
| durable                                    | 852                 | 9.673709    | 11.26099                  | 0              | 81             |
| polity2                                    | 852                 | .084507     | 5.463469                  | -10            | 10             |
| lmtnest_I                                  | 814                 | 1.570248    | 1.407859                  | 0              | 4.421247       |
| peace years (conflict onset)               | 909                 | 6.49725     | 5.316134                  | 0              | 18             |
| peace years (religious conflict onset)     | 909                 | 7.723872    | 5.532214                  | 0              | 18             |
| peace years (religious conflict onset (2)) | 909                 | 8.40154     | 5.548588                  | 0              | 18             |

Source: Authors' compilation.

**Table A3: Religious Conflicts in Sub-Saharan Africa, 1990-2008**

| <i>Country</i>                   | <i>Year of conflict onset (conflict onset)</i> | <i>Conflict parties opposing government forces (Side B)</i>            | <i>Religious armed conflict? Parties differ by religious affiliation (religious conflict onset)</i> | <i>Religious armed conflict? Religious incompatibility (religious conflict onset [2])</i> |
|----------------------------------|------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Angola                           | 1991                                           | FLEC-R                                                                 | No                                                                                                  | No                                                                                        |
| Angola                           | 1994                                           | FLEC-FAC, FLEC-R                                                       | No                                                                                                  | No                                                                                        |
| Angola                           | 1996                                           | FLEC-FAC                                                               | No                                                                                                  | No                                                                                        |
| Angola                           | 1998                                           | UNITA                                                                  | Yes                                                                                                 | No                                                                                        |
| Angola                           | 2002                                           | FLEC-FAC, FLEC-R                                                       | No                                                                                                  | No                                                                                        |
| Angola                           | 2004                                           | FLEC-FAC                                                               | No                                                                                                  | No                                                                                        |
| Angola                           | 2007                                           | FLEC-FAC                                                               | No                                                                                                  | No                                                                                        |
| Burundi                          | 1991                                           | Palipehutu                                                             | No                                                                                                  | No                                                                                        |
| Burundi                          | 1994                                           | CNDD                                                                   | No                                                                                                  | No                                                                                        |
| Burundi                          | 2008                                           | Palipehutu-FNL                                                         | No                                                                                                  | No                                                                                        |
| Central African Republic         | 2001                                           | Military faction (forces of André Kolingba), Forces of Francois Bozize | No                                                                                                  | No                                                                                        |
| Central African Republic         | 2006                                           | UFDR                                                                   | Yes                                                                                                 | No                                                                                        |
| Chad                             | 1997                                           | FARF, MDD                                                              | Yes                                                                                                 | No                                                                                        |
| Chad                             | 2005                                           | FUCD                                                                   | No                                                                                                  | No                                                                                        |
| Comoros                          | 1997                                           | MPA/Republic of Anjouan                                                | No                                                                                                  | No                                                                                        |
| Congo                            | 1993                                           | Cobras, Ninjas                                                         | Yes                                                                                                 | Yes                                                                                       |
| Congo                            | 1997                                           | Cobras, Cocoyes                                                        | Yes                                                                                                 | Yes                                                                                       |
| Congo                            | 2002                                           | Ntsiloulous                                                            | Yes                                                                                                 | Yes                                                                                       |
| Cote d'Ivoire                    | 2002                                           | MJP, MPCI, MPIGO, FN                                                   | Yes                                                                                                 | No                                                                                        |
| Democratic Republic of the Congo | 1996                                           | AFDL, MLC, RCD, RCD-ML                                                 | No                                                                                                  | No                                                                                        |
| Democratic Republic of the Congo | 2006                                           | CNDP                                                                   | No                                                                                                  | No                                                                                        |
| Democratic Republic of the Congo | 2007                                           | BDK                                                                    | Yes                                                                                                 | Yes                                                                                       |
| Djibouti                         | 1991                                           | FRUD                                                                   | No                                                                                                  | No                                                                                        |
| Djibouti                         | 1999                                           | FRUD – AD                                                              | No                                                                                                  | No                                                                                        |
| Eritrea                          | 1997                                           | EIJM – AS                                                              | Yes                                                                                                 | Yes                                                                                       |
| Eritrea                          | 1999                                           | EIJM – AS                                                              | Yes                                                                                                 | Yes                                                                                       |
| Eritrea                          | 2003                                           | EIJM – AS                                                              | Yes                                                                                                 | Yes                                                                                       |
| Ethiopia                         | 1994                                           | OLF; ONLF                                                              | Yes                                                                                                 | No                                                                                        |
| Ethiopia                         | 1996                                           | ONLF; ARDUF; al-Itahad al-Islami                                       | Yes                                                                                                 | Yes                                                                                       |
| Ethiopia                         | 1998                                           | Oromiya                                                                | Yes                                                                                                 | No                                                                                        |
| Ethiopia                         | 1999                                           | ONLF; al-Itahad al-Islami                                              | Yes                                                                                                 | Yes                                                                                       |
| Ethiopia                         | 2004                                           | ONLF                                                                   | Yes                                                                                                 | No                                                                                        |
| Guinea                           | 2000                                           | RFDG                                                                   | No                                                                                                  | No                                                                                        |
| Guinea-Bissau                    | 1998                                           | Military Junta for the Consolidation of Democracy, Peace and Justice   | No                                                                                                  | No                                                                                        |

| <i>Country</i>                                 | <i>Year of conflict onset (conflict onset)</i> | <i>Conflict parties opposing government forces (Side B)</i> | <i>Religious armed conflict? Parties differ by religious affiliation (religious conflict onset)</i> | <i>Religious armed conflict? Religious incompatibility (religious conflict onset [2])</i> |
|------------------------------------------------|------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Lesotho                                        | 1998                                           | Military faction                                            | Yes                                                                                                 | No                                                                                        |
| Liberia                                        | 2000                                           | LURD, MODEL                                                 | Yes                                                                                                 | No                                                                                        |
| Mali                                           | 1990                                           | MPA                                                         | No                                                                                                  | No                                                                                        |
| Mali                                           | 1994                                           | FIAA                                                        | No                                                                                                  | No                                                                                        |
| Mali                                           | 2007                                           | ATNMC                                                       | No                                                                                                  | No                                                                                        |
| Niger                                          | 1991                                           | FLAA                                                        | No                                                                                                  | No                                                                                        |
| Niger                                          | 1994                                           | CRA                                                         | No                                                                                                  | No                                                                                        |
| Niger                                          | 1995                                           | FDR, FARS                                                   | No                                                                                                  | No                                                                                        |
| Niger                                          | 1997                                           | UFRA                                                        | No                                                                                                  | No                                                                                        |
| Niger                                          | 2007                                           | MNJ                                                         | No                                                                                                  | No                                                                                        |
| Nigeria                                        | 2004                                           | Ahlul Sunnah Jamaa                                          | Yes                                                                                                 | Yes                                                                                       |
| Rwanda                                         | 1990                                           | FDR                                                         | No                                                                                                  | No                                                                                        |
| Randa                                          | 1997                                           | FDLR                                                        | No                                                                                                  | No                                                                                        |
| Senegal                                        | 1990                                           | MFDC                                                        | Yes                                                                                                 | No                                                                                        |
| Senegal                                        | 1992                                           | MFDC                                                        | Yes                                                                                                 | No                                                                                        |
| Senegal                                        | 1995                                           | MFDC                                                        | Yes                                                                                                 | No                                                                                        |
| Senegal                                        | 1997                                           | MFDC                                                        | Yes                                                                                                 | No                                                                                        |
| Senegal                                        | 2000                                           | MFDC                                                        | Yes                                                                                                 | No                                                                                        |
| Senegal                                        | 2003                                           | MFDC                                                        | Yes                                                                                                 | No                                                                                        |
| Sierra Leone                                   | 1991                                           | RUF, AFRC, Kamajors, WSB                                    | No                                                                                                  | No                                                                                        |
| Somalia                                        | 2001                                           | SRRC                                                        | No                                                                                                  | No                                                                                        |
| Somalia                                        | 2006                                           | ARS/UIC, Al-Shabaab, Harakat Ras Kamboni                    | No                                                                                                  | Yes                                                                                       |
| Uganda                                         | 1994                                           | LRA, ADF, WNB, UNRF II                                      | Yes                                                                                                 | Yes                                                                                       |
| Total (years with at least one conflict onset) | 57                                             |                                                             | 26                                                                                                  | 12                                                                                        |

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