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Abstract

Understanding the causes and consequences of conflicts continues to be an important contribution to the economic development literature, particularly the mechanisms that can reduce civilian deaths. We contribute to understanding attacks on civilians and the spillover effects by analysing the impact of government religious preference on civilian deaths. Using panel data analysis for 113 countries for the period 1989 to 2015, we find that a higher government preference towards religion causes more civilian deaths for countries experiencing intrastate conflict. Furthermore, we analyse this effect by the different types of conflict and find that the results are driven by both state-based and non-state-based conflicts. Lastly, a regional analysis shows that the negative impact of a strong preference towards religion from the government is particularly notable for countries in Africa and Asia.

Keywords: conflict, religion, government religious preference, civilian deaths

JEL Classification: C33, H56, O10, O55

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1 Introduction

The detrimental effects of conflicts are far-reaching, from the destruction of infrastructure and human capital as well as greater loss of life and refugee flows (Blattman & Miguel 2010). Yet, not all empirical evidence describe conflict's impact as negative. Blattman and Miguel (2010) note that sound and capable government institutions can be formed in conflicts' aftermath promoting technological and institutional development. Due to these heterogeneous effects, conflict has become an important topic in economic development, particularly understanding the causes of conflict. One such factor that is commonly attributed to conflict in the literature is religion (Basedau et al. 2016; Brown 2016; Fox 2004).

In this paper, we argue that government support towards a religion causes repercussions from insurgent groups who differ in religion. A government can favour religion through government policies, public education, or financing, to name a few. These favouritism mechanisms affect the way an economy functions. Increased preference for religion, from a government, is expected to stimulate a more imposing and barrier-type fiscal regime (Minkenberg 2002). We argue that government religious preference (GRP) can be a reason for a country to be in a greater state of conflict, suffer more civilian deaths, and endure the associated externalities, which is detrimental to economic development.

According to Lis et al. (2021), the mechanisms leading to civilian deaths in conflict are not fully understood. This study contributes to understanding one such mechanism: the grievances that can arise from religion to cause conflict and loss of lives. We investigate whether GRP affects the probability of increased civilian deaths during conflicts. Ordinary civilians are more likely to suffer from the externalities of high preference toward religion from the government. Although GRP has decreased in the past three decades, some of the least developed countries are still ruled by governments who favour religion (e.g. Somalia, Sudan, Yemen).

Using a Poisson model for 113 countries during the period 1989 to 2015, we find that a higher government preference toward religion causes higher civilian deaths for countries that experience intrastate conflict. These results hold for both state-based and non-state-based conflicts. We also find that Africa and Asia are the two regions driving these results. The results imply that civilian targeting during conflict is of greater concern when the government enforces certain religious policies on its citizens. Furthermore, regions that receive favourable treatment from the government due to similar religious ideologies can

be targeted by aggrieved militia or marginalised groups and increase civilian casualties. This is especially the case in remote areas where the state's army cannot fully protect its civilians.

In Section 2, a review of the available literature regarding conflict, causes of conflict and religion's impact is done. The methodology, as well as the models used and data sources, to investigate the impact of GRP on the state of conflict, is presented in Section 3. In Section 4, the empirical results, which outline the impact of GRP globally, as well as regionally, follow. Lastly, in Section 5, conclusions are made based on the findings and implications are discussed.

2 Literature Review

Religion's role in conflict has become more apparent in research since the events of 11 September 2001 (Fox 2004). According to Isaacs (2016), the percentage of civil wars, involving religion, increased from 21% to 43% between the 1960s and 1990s, particularly in the Middle East and North Africa where conflicts increased from 0% to 75% from 1975 to 2011. Yet, historians note that religion has always played key roles in conflict, such as the Crusades in the tenth century, known as Holy Wars, and based purely on religious motives (Stark 2016). Furthermore, Fox (2004) states that religion is one of the crucial foundations for a civilization that influences each individual's political and ethical decisions. Therefore, religion appears to be an important determinant of internal conflicts.

Basedau et al. (2016) uses the theoretical concept of collective action to explain why religion can cause armed conflict. Several features of religion, such as religious identity structures, create opportunities for rebellious movements and mobilisations. Several hypotheses of religion's impact were tested by using religious fractionalization, polarization, and dominance. The results indicate that the overlap of religious identities and discrimination against religious identities (e.g. education or restricted job opportunities due to religious beliefs) causes grievances that fuels religious armed conflicts. Religious leaders can use this as an incentive to start violent conflicts since, if the public identifies with a certain religion, they respond favourably to that religion's elites (Brown 2016). Brown (2016) further finds that Christian and Islam state preferences have a measurable impact that causes disputes to turn into armed conflict.

Collier et al. (2005) used ethnic and religious hatred as a measure of grievance. This is not

an easily quantifiable measure but is more pertinent in societies that are less homogenous and more fractionalized. The results did not indicate that religious fractionalization and polarization significantly contribute to the explanatory power of a civil war onset. Although, the Collier-Hoeffler model of civil war concluded that civilizations with diversity in their ethnic and religious identities are less prone to conflict than homogenous societies, as long as a certain religious or ethnic identity is not dominant (Collier et al. 2005). These findings support Fox (1998) in that ethnic issues have become interweaved with religious issues. Fox (1998) argues that religious prophecies detail the specific rules that the followers of the religion need to abide by, and these often leave room for interpretation which individuals use as an opportunity to steer the situation into conflict.

The literature further notes that political and religious ideologies are intertwined by the purpose they serve. Even though religion's importance in the political sphere has been questioned and nullified over history, Fox (2004) argues that, recently, religion's importance in government structures has grown. This is mainly due to the failures of the "modern secular political ideologies", such as nationalism, that is either combined with communism, fascism, liberalism or socialism (Juergensmeyer 1993). By the end of the 1980s, many individuals felt that governments, based on these principles, had failed to deliver prosperity and fulfil their social justice promises. This caused a crisis of legitimacy for these government regimes and resulted in a shift back to religion as an authentic and sustainable foundation as a government structure (Fox 2004). Furthermore, Fox (2004) finds that the combination of religion and separatism has a strong impact on ethnic conflict.

Isaacs (2016) introduces the explicit use of religious rhetoric by organizations to measure religions impact on conflict and tests two hypotheses: (1) Organizations that used religious rhetoric in the past are more likely to engage in violence; and (2) Organizations that participated in violence in the past are more likely to adopt religious rhetoric. Using a logistic model, Isaacs (2016) found no support for (1) but did find support for (2). That is, the author finds strong support that past participation, intensity, and duration of violence increases the likelihood that an organization will adopt religious rhetoric to increase support. While much previous literature uses religious fractionalisation as a measure for religion, we introduce a measure that identifies government religious preferences. We argue that government preference towards one religious group can disadvantage the marginalised groups, usually through provision of public goods, and lead to grievances that can cause conflicts (Basedau et al. 2016; Brown 2016; Collier et al. 2005; Fox 2004).

3 Data and Methodology

The conflict data is from the UCDP Georeferenced Event Dataset Version 20.1, made available by the Uppsala Conflict Data Program (UCDP) (Sundberg & Melander 2013). From this dataset, we use the civilian deaths[1] defined as the best estimate of dead civilians from each conflict event. These deaths are collateral damage resulting from fighting between the different sides of a conflict in state-based and non-state-based conflict events (Sundberg & Melander 2013).[2]

The dependent variable for our model is the aggregate count of each country's civilian deaths in each year related to conflicts. We use a Poisson model[3] to analyse the effect of GRP on civilian deaths and estimate the following equation:

$$\begin{aligned} E[civilian\ deaths_{it}|log(GRP_{it}) + \boldsymbol{\eta_{it}} + \gamma_i + \delta_t] = \\ exp[\beta_0 + \beta_1 log(GRP_{it}) + \boldsymbol{\beta\eta_{it}} + \gamma_i + \delta_t + \epsilon_{it}] \end{aligned} \tag{1}$$

where i and t index for countries and years, respectively. The variable of interest is GRP. The variable $\boldsymbol{\eta}$ represents a vector of additional controls that includes institutions, income, population, and unemployment. The variables γ and δ are country and year fixed effects to control unobserved country and year heterogeneity.[4]

The data on GRP is from the Association of Religion Data Archives (ARDA) (Brown 2016).[5] The variable accounts for the favouritism of religion from a government and considers various factors, such as prevailing government policies, to account for this preference. The GRP variable is the composite index of the official status, religious education, financial support, regulatory burdens, and freedom of practice a government consents in a country. It is measured on a scale of 0 to 4 where 4, is when a government highly favours religion and 0, is no favouritism toward religion from a government. Important to note is that atheism or no religion is a choice and can be preferred (e.g. China) (Davis

[1] We also construct an ordinal variable of *Civilian Conflict* that is broken into 3 intensities and is a function of civilian deaths for robustness. See Section 4.2.

[2] In the analysis we also analyse various regions of the world to compare outcomes. These five regions are Africa, the Americas, Asia, Europe, and the Middle East.

[3] We also estimate the model using OLS. The results are similar to the Poisson model, though we lose significance.

[4] We note the possibility of endogeneity causing bias in our results. We have made several attempts to reduce its effects on our results such as using fixed effects to control for unobserved heterogeneity. Additionally for robustness, we specified the lags of the independent variables in the model, but the conclusions remained unchanged. These results are robust and displayed in Table A3 in Appendix A.

[5] The data, version 2 (GRP 2.0), is available at https://www.thearda.com/Archive/Files/Downloads/GRPCOMP_DL.asp.

2005).

We include different control variables that capture various factors, like wealth, quality of institutions, and the ability to access resources that have been identified as possible contributors to internal conflict (Murshed 2002). One control is the political regime in a country and is from the Polity IV dataset, compiled by the Integrated Network for Societal Conflict Research (INSCR). The polity score ranges from +10 (strongly democratic) to -10 (strongly autocratic). The variable is restructured to be on a scale of 0 (strongly autocratic) to 1 (strongly democratic) to simplify the interpretation of the regression results. This variable accounts for countries experiencing a foreign interruption in their political system, a period of transition from one political regime to another, and similar events (Marshall et al. 2002). According to Blattman and Miguel (2010), institutions that promote economic growth and prosperity act as barriers against the outbreak of a conflict. Therefore, we expect a negative association between political regime and conflict. However, it is important to note an undeniable reverse causality element about conflict. Conflict has the power to alter the political and social institutions, as well as change the regime type, in a country, all together (Blattman & Miguel 2010).

Additional controls include the log of income, log of population, and unemployment which are collected from the World Development Indicators (World Bank 2010). GDP per capita (at constant 2010 US$) is used as a measure of income and the level of poverty in a country. We expect increasing GDP per capita to reduce conflicts. Humphreys and Weinstein (2006) argues that a lack of resources and disgruntlement across troops can result in violent attacks on civilians. It also suggests that insurgent groups are more likely to target civilians if they do not have enough resources to directly challenge the armed forces of the government. Humphreys (2003) also finds that poverty is one of the main reasons for conflict and greater economic growth is associated with lower levels of conflict.

The unemployment rate is the percentage of the total labour force (modelled ILO estimate) to ensure uniformity across countries and is used as a measure of equal opportunities, for the citizens, throughout a country. Humphreys (2003) notes that economic inequality, especially horizontal inequality, is an important determinant of conflict given the limitations of opportunities for individuals who are not near the top end of the distribution spectrum. Therefore, we expect a positive association between unemployment and civilian deaths.

The population variable is the total population and the correlation with conflict is ambiguous in the literature. Population growth has been found to add pressures on society through increased poverty, inequality, and scarcity of resources (Tir & Diehl 1998). The increased pressure of a greater population, on a country's resources, can even lead to a more autocratic political regime (Boucekkine et al. 2016). Raleigh and Hegre (2009) found that population is linked to the feasibility of conflict, particularly for rebels. Large populations can be easier targets for rebels but can also be a transactional cost to rebels (too many people to coordinate or get co-operation from). While on the other hand, densely populated areas are easier to protect for military purposes than a population that is spread out.

3.1 Descriptive Statistics

The summary statistics of the data are reported in Table 1. These variables are shown across the different regions and for all the countries in the sample.[6] From Table 1, Africa, Asia and the Middle East are the regions experiencing the most conflict-related deaths. The mean for civilian deaths in Africa is more than double the next closest region. Middle eastern countries have the highest preference towards religions from the government, followed by Asia, the Americas, Europe and Africa. African and Middle Eastern countries are more autocratic while countries in Europe and the Americas have pretty strong democratic polity scores.

Table 1: Summary Statistics of Variables Across Regions

Columns by: Regions	Africa	The Americas	Asia	Europe	The Middle East	The World
n (%)	1161 (38.7)	540 (18.0)	534 (17.8)	415 (13.8)	351 (11.7)	3001 (100.0)
Government Religious Preference, mean (sd)	2.150 (0.583)	2.279 (0.394)	2.524 (0.546)	2.192 (0.371)	3.126 (0.367)	2.359 (0.585)
Total Deaths, mean (sd)	1061.854 (1.6e+04)	128.933 (471.934)	746.024 (1861.716)	184.933 (869.237)	1150.305 (6769.683)	726.864 (1.0e+04)
Civilian Deaths, mean (sd)	622.829 (1.5e+04)	27.244 (151.846)	128.537 (466.152)	58.766 (486.121)	233.897 (1432.581)	304.213 (9599.040)
Political Regime, mean (sd)	0.495 (0.269)	0.860 (0.148)	0.546 (0.318)	0.802 (0.249)	0.325 (0.298)	0.593 (0.316)
GDP per capita (thousand constant 2010 US$), mean (sd)	1.597 (1.831)	9.054 (12.277)	1.709 (1.772)	15.357 (16.244)	15.644 (16.641)	6.509 (11.511)
Population (millions), mean (sd)	17.561 (24.058)	40.076 (70.356)	161.634 (349.027)	31.948 (39.712)	24.210 (25.879)	50.091 (160.883)
Unemployment (ILO Estimate %), mean (sd)	9.575 (8.067)	7.208 (3.957)	3.779 (3.166)	12.648 (8.076)	7.833 (4.161)	8.335 (6.914)

sd - Standard Deviation. Observations are for the years 1989-2011.

Urdal (2005) notes that a greater state of conflict is associated with lower economic growth and higher deaths related to the conflict. We expect the same from the summary statistics and correlation analysis.[7] We also expect these effects to be greater in regions such as Africa, Asia, and the Middle East.

[6] Table A1 in appendix A lists the countries in each region.

[7] See Table A2 in appendix A for correlations.

4 Empirical Results

4.1 Regression Results

Table 2 reports the results for the Poisson model. Column 1 includes country fixed effects only, while Column 2 includes both country and time fixed effects. Column 3 includes control variables with country fixed effects, and Column 4 is the complete model with country and year fixed effects.

Table 2: Poisson Regression - Total Civilian Deaths

Dependent Variable:	Total Civilian Deaths			
	(1)	(2)	(3)	(4)
Log GRP	17.390	10.725**	15.741***	14.916***
	(12.054)	(4.258)	(2.929)	(3.275)
Political Regime			-0.147	-1.404
			(1.148)	(0.935)
Log Income			-6.179***	-4.439***
			(1.030)	(0.553)
Log Population			-1.329	-7.724***
			(1.951)	(1.331)
Unemployment			-0.198*	0.028
			(0.112)	(0.058)
Country FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	2835	2835	2449	2449
Pseudo R-Squared	0.592	0.811	0.879	0.920
χ^2	2.081	6.344	263.566	183.098
Log Likelihood	-1876052.992	-866386.847	-520440.575	-342582.447

Standard Errors in parentheses are adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). * $p < .10$, ** $p < .05$, *** $p < .01$

From Columns 2-4 in Table 2, a 0.1% increase in GRP leads to a significant increase in the average civilian deaths of between 1.07% and 1.57%.[8] The positive and significant

[8]This unit of change is used since it accurately presents a change in the sample data. The average value of a change in GRP for all countries is 0.004 which is roughly 0.2% of the mean. Although, this change ranges from -3.33 to 0.93.

effect of GRP remains robust to the addition of controls as well as country- and year-specific fixed effects. These results support prior expectations that greater GRP will lead to grievances, such as horizontal inequalities across religious groups, which can escalate violence and lead to more civilian deaths in conflict (Basedau et al. 2016). Furthermore, if a state prefers a religion, there would be greater opportunities for those affiliated with the same religion and a dominating nature of that religion in the country. It follows from Collier et al. (2005) that a domination of a religious identity is more prone to conflicts.

As expected, lower levels of income are associated with greater levels of conflict and civilian deaths. The negative sign on the coefficient of population supports one of the hypotheses set out by Raleigh and Hegre (2009). Densely populated areas may be difficult to co-ordinate for rebels, but easier to protect for military purposes than a population that is spread out (Raleigh & Hegre 2009). The effect of the political regime and unemployment are insignificant.

In Table 3, we disaggregate our dependent variable by state-based and non-state-based conflicts. State-based conflicts are defined as "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a calendar year." While non-state-based conflicts are defined as "the use of armed force between two organized armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year" (Sundberg & Melander 2013).

We are interested in observing if GRP might have heterogeneous effects on different types of conflicts. We observe that GRP increases civilian deaths for non-state-based conflicts relatively more than state-based conflicts. For state-based conflicts, a 0.1% increase in GRP leads to an average increase of civilian deaths of between 0.41% and 0.59% compared to the non-state-based conflicts with an average increase of civilian deaths of between 0.64% and 1.10%. Anderton (2014) argues that a well-resourced army should be able to directly challenge militia groups and hence, reduce civilian casualties.

On the other hand, rebel fighting can increase civilian casualties due to groups targeting admin areas and civilians who have similar religious ideologies with the government (Lis et al. 2021). These rebel groups dislike the better services and favouritism afforded to these regions. Stronger democratic institutions also lead to less civilian deaths in non-state-based conflicts. From Column 7 and 8, a 0.01 unit increase in the polity

score will decrease civilian deaths by between 1.56% and 2.35%.[9] The significance of population in non-state-based conflicts and insignificance in state-based conflicts support the hypothesis that rebel groups target less populous areas that do not get support and protection from the state's army and are seen as easier targets.

Table 3: Poisson Regression - State vs. Non-State Conflicts

Dependent Variable:	Total Civilian Deaths							
	State-Based Conflicts				Non-State-Based Conflicts			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log GRP	2.653***	4.094***	5.926***	4.835**	6.663	6.397**	9.551**	11.018***
	(0.798)	(1.022)	(2.084)	(2.449)	(4.652)	(3.063)	(4.380)	(2.680)
Political Regime			-0.584	-0.603			-2.353*	-1.562*
			(0.715)	(0.903)			(1.209)	(0.950)
Log Income			-1.604	-2.959***			-4.515***	-4.852***
			(1.028)	(0.665)			(0.937)	(0.900)
Log Population			1.693	-2.342			1.224	-8.448***
			(1.272)	(1.539)			(1.343)	(2.510)
Unemployment			-0.045	-0.015			-0.115	0.075
			(0.083)	(0.045)			(0.163)	(0.128)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes	No	Yes	No	Yes
Number of Observations	2215	2215	1866	1866	1215	1215	974	974
Pseudo R-Squared	0.549	0.688	0.440	0.581	0.467	0.584	0.624	0.760
χ^2	11.061	16.046	11.131	22.464	2.051	4.363	29.656	49.005
Log Likelihood	-171648.350	-118524.426	-68171.745	-51053.600	-15036.798	-11748.863	-8727.489	-5558.012

Standard Errors in parentheses are adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). The two samples used only include civilian casualties from state-based and non-state-based conflicts. * $p < .10$, ** $p < .05$, *** $p < .01$

The negative association between the institutional variable and civilian deaths during conflict suggests a mechanism that may attenuate the positive effects of GRP. Table 4 includes an interaction between GRP and political regime. Table 4 Panel A lists the regression coefficients while Panel B lists the marginal effects. The marginal effects are used since it is simpler to interpret the effects of the interaction in a Poisson model. The marginal effects can be interpreted as the increase in the count of civilian deaths with a 1% increase in GRP and a unit increase in the political regime.

From Column 4 and 8 in Panel B, we can see that a 1% increase in GRP leads to roughly 151 and 82 more civilian deaths in state-based and non-state-based conflicts, respectively.[10] These differences show that strong democratic political institutions mitigate the effect of GRP in non-state-based conflicts. Table 4 Column 2 and Column 6 have sig-

[9] The average change in the political regime variable for the sample is 0.009. Therefore, a 0.01 unit change is applicable to the sample used.

[10] A 1% increase in GRP is relatively large for the sample. See previous note.

nificant marginal effects for political regime. A unit increase in political regime decreases civilian deaths by 148 and 24 in state-based and non-state-based conflicts, respectively.[11] These results show that improving institutional quality can mitigate the negative impact of GRP on civilian deaths, especially in the case of non-state-based conflicts.

Table 4: Poisson Regression - Interaction (State vs. Non-State Conflicts)

Dependent Variable:	Total Civilian Deaths							
	State-Based Conflicts				Non-State-Based Conflicts			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Regression Coefficients								
Log GRP	0.490	2.014	-0.101	-3.208	8.977	9.717*	6.430	7.510**
	(1.285)	(1.748)	(2.200)	(2.780)	(7.618)	(5.760)	(5.135)	(2.988)
Political Regime	-4.962**	-4.583**	-14.109***	-16.523***	1.902	-1.350	-8.079*	-8.974***
	(1.971)	(1.864)	(2.810)	(3.262)	(4.196)	(4.241)	(4.242)	(2.795)
Log GRP ×	3.958	1.294	14.509***	17.693***	-2.842	-2.199	6.982	8.564***
Political Regime	(2.655)	(2.256)	(2.661)	(3.505)	(5.118)	(5.355)	(4.283)	(3.063)
Log Income			-2.219**	-3.808***			-4.680***	-5.219***
			(1.052)	(0.601)			(0.900)	(0.829)
Log Population			2.133*	-3.089*			1.459	-9.067***
			(1.125)	(1.640)			(1.371)	(2.603)
Unemployment			-0.058	-0.008			-0.090	0.116
			(0.091)	(0.047)			(0.162)	(0.122)
Panel B: Marginal Effects								
Log GRP	78.223	110.270	181.179**	151.663**	56.593	64.079*	69.411**	82.469***
	(47.916)	(67.468)	(79.687)	(75.125)	(52.068)	(37.245)	(28.298)	(21.292)
Political Regime	-40.657	-148.572***	-21.117	-10.433	-5.177	-24.668*	-13.728	-10.208
	(50.297)	(44.978)	(33.823)	(48.215)	(11.216)	(14.995)	(16.149)	(16.930)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes	No	Yes	No	Yes
Number of Observations	2157	2157	1866	1866	1180	1180	974	974
Pseudo R-Squared	0.548	0.711	0.475	0.619	0.476	0.605	0.629	0.766
χ^2	17.901	32.498	34.345	44.401	2.638	10.724	48.118	68.050
Log Likelihood	-165431.153	-105830.247	-63957.255	-46378.483	-14627.024	-11019.130	-8610.082	-5427.336

Standard Errors in parentheses are adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). The two samples used only include civilian casualties from state-based and non-state-based conflicts. * $p < .10$, ** $p < .05$, *** $p < .01$

4.2 Robustness

4.2.1 Total Deaths

Table 5 presents the same Poisson specifications as before but using total battle deaths instead of civilian deaths. In Column 1 and 2 we still find a significant and positive effect on total battle deaths. The positive effect of GRP is robust to additional controls as well as year- and country-specific fixed effects even though it is not significant. We also find similar effects for all other control variables.

[11] A one-unit increase in political regime is relatively large for the sample. See previous note.

Table 5: Poisson Regression - Total Deaths

Dependent Variable:	Total Deaths			
	(1)	(2)	(3)	(4)
Log GRP	4.300**	2.974**	3.099	1.514
	(1.914)	(1.397)	(2.355)	(1.922)
Political Regime			0.737	0.481
			(0.931)	(0.940)
Log Income			-5.247***	-4.204***
			(1.357)	(0.621)
Log Population			0.780	-5.329***
			(1.211)	(1.154)
Unemployment			-0.076*	0.035
			(0.045)	(0.029)
Country FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	2997	2997	2577	2577
Pseudo R-Squared	0.540	0.654	0.714	0.787
χ^2	5.050	4.535	30.010	95.163
Log Likelihood	-3229575.197	-2431707.594	-1550295.592	-1154715.397

Standard Errors in parentheses adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). * $p < .10$, ** $p < .05$, *** $p < .01$

4.2.2 Ordered Logit

We also construct an ordinal variable of *Civilian Conflict* that is broken into 3 intensities and estimate the model using an ordered logit for robustness.[12] The model specification uses the categories of conflict which is a function of civilian deaths:

$$y^*_{it} = GRP_{it} + polreg_{it} + \eta_{it} + \nu_i + \epsilon_{it}.$$

where y^* is a discrete intensity measure of civilian deaths: (1) if no conflict (0-25 civilian deaths per year); (2) if mid-intensity conflict (25-999 civilian deaths per year); and (3) if high-intensity conflict (1000 or more civilian deaths per year) (Gleditsch et al. 2002; Wallensteen & Sollenberg 2001). These discrete categories aids with extreme outliers.

[12]More information on the ordered logit model is provided in Appendix B.

Table 6: Random Effects Ordered Logistic Model

Dependent Variable:	Civilian Conflict			
	(1)	(2)	(3)	(4)
Panel A: Regression Coefficients				
Log GRP	4.497***	4.411***	4.762***	4.847***
	(1.212)	(1.194)	(1.298)	(1.353)
Political Regime			-1.556**	-1.659**
			(0.763)	(0.820)
Log Income			-1.786***	-2.400***
			(0.647)	(0.775)
Log Population			0.609	-1.282
			(0.967)	(1.778)
Unemployment			0.034	0.040
			(0.042)	(0.042)
Panel B: Marginal Effects				
	Log GRP			
No Conflict	-0.483***	-0.464***	-0.490***	-0.490***
	(0.132)	(0.127)	(0.136)	(0.140)
Mid-Intensity Conflict	0.401***	0.387***	0.453***	0.455***
	(0.111)	(0.107)	(0.127)	(0.130)
High-Intensity Conflict	0.082***	0.077***	0.037**	0.035**
	(0.028)	(0.026)	(0.015)	(0.014)
	Political Regime			
No Conflict			0.160**	0.168**
			(0.079)	(0.084)
Mid-Intensity Conflict			-0.148**	-0.156**
			(0.073)	(0.078)
High-Intensity Conflict			-0.012*	-0.012*
			(0.007)	(0.007)
CRE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	2997	2997	2676	2676
Wald χ^2	14.461	52.241	66.330	160.070
$Sigma_u$	4.261	4.453	2.855	2.937
Rho	0.564	0.575	0.465	0.472

Robust Standard Errors in parentheses for coefficients. Delta-Method standard errors in parentheses for marginal effects. Rho is the proportion of the total variance contributed by the panel-level variance component. $Sigma_u$ is the variance component attributable to the panel id. Unobserved effects in the ordered logit model is controlled for by adapting Chamberlain's approach (Wooldridge 2010). CRE denotes Chamberlain's approach. Adding regional fixed effects to models produces similar results. Civilian conflict is a categorical variable. There are three categories: (1) No conflict (civilian deaths ≤ 25), (2) Mid-intensity conflict ($25 <$ civilian deaths ≤ 1000), and (3) High-intensity conflict (civilian deaths > 1000). * $p < .10$, ** $p < .05$, *** $p < .01$

We also use the Chamberlain approximate fixed effects method to control for country-specific fixed effects by including means of the time-variant independent variables (Wooldridge 2012). In Table 6 Columns 2 and 4, we control for year-specific fixed effects. In Panel A of Table 6, we present the ordered logit regression coefficients and Panel B is the marginal effects at the mean values of the explanatory variables.[13] From Panel A in Table 6, GRP has a positive and significant effect on the state of conflict in a country. We also see that a more democratic political system is associated with a lower state of conflict.

Focusing on the marginal effects in Panel B is more informative. On average, an increase in GRP decreases the probability of being in a state of no conflict by 49%. It also increases the probability of being in a state of mid-intensity and high-intensity conflict by roundabout 45% and 3.5%, respectively. All these effects are significant. Furthermore, being more democratic causes an increase in the probability of roundabout 16%, for a country to not be in a state of conflict. It also reduces the probability of a country finding itself in a state of mid-intensity or high-intensity conflict by 15.6% and 1.2%, respectively.

4.2.3 Regional Analysis

We also investigate if the effects of GRP on conflicts are similar across the different global regions.[14] Regional factors such as geography, educational attainment, employment opportunities, language, religious discrimination, and disadvantages to minorities are important when measuring the impact of GRP on intrastate conflict (Nafziger 2002).

We find that the positive and significant effects of GRP are driven by countries in Asia and Africa.[15] Table 7 presents the results for the African region which has been affected by intrastate conflicts in the last three decades. More worrying is that countries across Africa have the highest average civilian deaths in conflicts across all the regions. Countries in Africa are also characterised by low income, weak institutions, moderate unemployment, and high populations. A 0.1% increase in GRP leads to a $1.4 - 2.7\%$ increase in civilian deaths across all the model specifications. These effects are higher than those of the global sample.

In Table 7, Column 4, political regime plays an important role in Africa. A 0.01 unit

[13] Average marginal effects lead to similar results.

[14] Table A1 in appendix A lists the countries in each region.

[15] Tables A4, A5, and A6 are in Appendix A for the Middle East, Europe, and the Americas, respectively. A test was done on the region MENA, and the effect of GRP was positive and significant on civilian deaths. Nevertheless, the focus is on the regions specified by the UCDP/PRIO dataset and the results are small and insignificant in most cases. Therefore, the focus is on Africa and Asia.

Table 7: Poisson Regression for Africa - Total Civilian Deaths

Dependent Variable:	Total Civilian Deaths			
	(1)	(2)	(3)	(4)
Log GRP	27.867**	17.692***	14.117***	17.843***
	(11.273)	(3.806)	(2.952)	(3.502)
Political Regime			-1.435	-3.837***
			(1.166)	(1.177)
Log Income			-7.160***	-4.906***
			(1.332)	(0.806)
Log Population			-2.228	-11.689***
			(2.770)	(3.369)
Unemployment			-0.198**	0.016
			(0.089)	(0.098)
Country FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	1161	1161	965	961
Pseudo R-Squared	0.607	0.892	0.916	0.951
χ^2	6.111	21.603	329.232	188.249
Log Likelihood	-1487237.666	-407897.661	-306621.391	-180546.355

Standard Errors in parentheses adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). * $p < .10$, ** $p < .05$, *** $p < .01$

increase in political regime decreases the average civilian deaths by 3.83%. Once again, with countries in Africa having relatively low incomes per capita, the role of income in civilian deaths cannot be ignored.

After Africa, Asia is the next region with the lowest mean income. Asia also has the highest population mean and has been afflicted by numerous conflicts in the past few years - especially in countries such as Afghanistan, Pakistan, India, and China - to mention a few. Table 8 displays the effect of GRP for the Asia region. Although the effect of GRP is smaller than in Africa, these effects are all positive. Through the different specifications, a 0.1% increase in GRP increases the average civilian deaths in Asia by between 0.37% and 0.71%.

In Column 4 of Table 8, the quality of Asian countries' institutions does not reduce

Table 8: Poisson Regression for Asia - Total Civilian Deaths

Dependent Variable:	Total Civilian Deaths			
	(1)	(2)	(3)	(4)
Log GRP	3.709**	4.668***	3.904***	7.104***
	(1.789)	(1.317)	(1.157)	(2.304)
Political Regime			-0.424	-1.083*
			(0.612)	(0.646)
Log Income			-2.449***	-3.944***
			(0.701)	(0.966)
Log Population			6.934***	-1.528
			(1.649)	(4.049)
Unemployment			-0.152	0.031
			(0.132)	(0.068)
Country FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	507	507	463	463
Pseudo R-Squared	0.531	0.638	0.524	0.683
χ^2	4.298	12.554	29.030	42.100
Log Likelihood	-56437.703	-43479.467	-40322.629	-26852.438

Standard Errors in parentheses adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). * $p < .10$, ** $p < .05$, *** $p < .01$

the number of civilian deaths in conflict as much as for countries in Africa. A 0.01 unit increase in political regime decreases the average civilian deaths by 1.08%. These effects are not as significant as for the Africa region. Furthermore, the population has insignificant effects on civilian deaths for countries in Asia.

5 Conclusion

In this paper, we contribute to understanding attacks on civilians during conflicts by arguing that GRP plays an important role. Specifically, policy preference for a certain religion in terms of religious education, financial support, regulatory burdens, and freedom of practice a government consents in a country causes grievances and more civilian deaths in the associated intrastate conflicts.

The results show that GRP has a significant effect on the number of civilian deaths in a country. Specifically, a 0.1% increase in GRP leads to an increase in average civilian deaths by between 1.1% and 1.6%. We also find that countries have a higher probability to be in a state of mid-intensity or high-intensity conflict with an increase in GRP, while the probability to be in a state of no conflict decreases. We further analyse the effects by focusing on state-based and non-state-based conflicts and find that the effect of GRP on civilian deaths during non-state-based conflicts is relatively larger than during state-based conflicts.

We also take into account the combination of GRP and the political regime of a country. Although stable democratic institutions reduce civilian deaths - especially in non-state-based conflicts - an increase in GRP still increases the number of civilian deaths. More specifically, the count of civilian deaths associated with an increase in GRP is less in non-state-based conflicts when accounting for institutional quality. As a final analysis, the results are shown across five different regions in the world. We find that GRP has the largest effect on African countries as well as significant effects in Asia.

Given that GRP is a composite of official religion status, religious education, financial support, regulatory burdens, and free exercise, the implications of the results are twofold. First, governments enforcing religious ideologies should do more to protect their innocent citizens from attacks. Second, rebel groups target regions that get government support due to similar religious ideologies, especially remote areas where the state's army cannot fully protect its civilians. Improving institutional quality is shown to be an important mechanism to mitigate the effect of GRP on civilian deaths.

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Appendix A

Table A1: Countries in Each Region

Africa	The Americas	Asia	Europe	The Middle East
Algeria	Argentina	Afghanistan	Albania	Bahrain
Angola	Bolivia	Bangladesh	Armenia	Egypt
Botswana	Brazil	Bhutan	Azerbaijan	Iran
Burundi	Canada	Cambodia	Bosnia-Herzegovina	Iraq
Cameroon	Colombia	China	Croatia	Israel
Central African Republic	Ecuador	India	France	Jordan
Chad	El Salvador	Indonesia	Georgia	Kuwait
Comoros	Guatemala	Kyrgyzstan	Germany	Lebanon
Congo	Guyana	Laos	Macedonia, FYR	Saudi Arabia
DR Congo (Zaire)	Haiti	Malaysia	Moldova	Syria
Djibouti	Honduras	Myanmar (Burma)	Netherlands	Turkey
Eritrea	Jamaica	Nepal	Russia (Soviet Union)	United Arab Emirates
Ethiopia	Mexico	Pakistan	Serbia (Yugoslavia)	Yemen
Gambia	Nicaragua	Papua New Guinea	Spain	
Ghana	Panama	Philippines	Ukraine	
Guinea	Paraguay	Solomon Islands	United Kingdom	
Guinea-Bissau	Peru	Sri Lanka		
Ivory Coast	Trinidad and Tobago	Tajikistan		
Kenya	United States of America	Thailand		
Kingdom of eSwatini	Venezuela	Uzbekistan		
Lesotho				
Liberia				
Libya				
Madagascar (Malagasy)				
Mali				
Mauritania				
Morocco				
Mozambique				
Namibia				
Niger				
Nigeria				
Rwanda				
Senegal				
Sierra Leone				
Somalia				
South Africa				
South Sudan				
Sudan				
Tanzania				
Togo				
Tunisia				
Uganda				
Zambia				
Zimbabwe (Rhodesia)				

These classifications are based on the UCDP Georeferenced Event Dataset version 20.1 (Sundberg & Melander 2013).

Table A2: Variable Correlations

	Civilian Conflict	Total Deaths	Civilian Deaths	Log GRP	Political Regime	Log Population	Log Income
Total Deaths	0.185***						
Civilian Deaths	0.105***	0.967***					
Log GRP	0.102***	0.014	-0.002				
Political Regime	-0.087***	-0.049***	-0.029	-0.197***			
Log Population	0.247***	0.021	-0.003	0.102***	0.124***		
Log Income	-0.187***	-0.061***	-0.041**	0.249***	0.277***	0.107***	
Unemployment	-0.080***	-0.026	-0.024	-0.035*	0.066***	-0.209***	0.201***

Civilian conflict is a categorical variable. There are three categories: (1) No conflict (civilian deaths ≤ 25), (2) Mid-intensity conflict ($25 <$ civilian deaths ≤ 1000), and (3) High-intensity conflict (civilian deaths > 1000). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A3: Poisson Regression - Total Civilian Deaths

Dependent Variable:	Total Civilian Deaths			
	(1)	(2)	(3)	(4)
Lagged GRP	8.769	5.192***	9.676***	8.714***
	(5.433)	(1.237)	(2.602)	(1.666)
Lagged Political Regime			2.640	-3.027**
			(2.576)	(1.331)
Lagged Log Income			4.345**	0.661
			(2.053)	(0.812)
Lagged Log Population			-12.161***	-2.236
			(4.366)	(2.063)
Lagged Unemployment			0.140	0.037
			(0.120)	(0.077)
Country FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	2676	2676	2304	2304
Pseudo R-Squared	0.600	0.821	0.768	0.883
χ^2	2.605	17.604	21.641	53.728
Log Likelihood	-1815929.393	-812819.731	-980524.785	-495625.186

Standard Errors in parentheses adjusted for country and year clusters. Robust standard errors lead to similar results. Lagged variables are an attempt to capture unobserved heterogeneity (endogeniety). Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). * $p < .10$, ** $p < .05$, *** $p < .01$

Table A4: Poisson Regression for The Middle East - Total Civilian Deaths

Dependent Variable:	Total Civilian Deaths			
	(1)	(2)	(3)	(4)
Log GRP	5.013	-28.475***	11.005	14.721
	(6.113)	(9.942)	(7.592)	(9.980)
Political Regime			5.301***	4.833***
			(1.237)	(1.560)
Log Income			-6.888***	-5.903***
			(0.797)	(1.297)
Log Population			6.610***	3.705
			(2.043)	(4.691)
Unemployment			0.079	0.032
			(0.125)	(0.114)
Country FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	323	323	255	255
Pseudo R-Squared	0.491	0.852	0.813	0.849
χ^2	0.673	8.203	85.921	27.415
Log Likelihood	-124453.798	-36280.844	-9261.478	-7472.693

Standard Errors in parentheses adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). * $p < .10$, ** $p < .05$, *** $p < .01$

Table A5: Poisson Regression for Europe - Total Civilian Deaths

Dependent Variable:	Total Civilian Deaths			
	(1)	(2)	(3)	(4)
Log GRP	2.843	5.728**	10.679***	7.549*
	(1.749)	(2.232)	(3.057)	(4.093)
Political Regime			-3.995*	-4.318**
			(2.369)	(1.804)
Log Income			-4.726***	-7.040**
			(1.301)	(2.872)
Log Population			-11.277	-12.698
			(11.616)	(7.890)
Unemployment			-0.093	-0.135
			(0.093)	(0.147)
Country FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	412	412	347	347
Pseudo R-Squared	0.475	0.789	0.594	0.752
χ^2	2.643	6.583	39.163	26.935
Log Likelihood	-44882.460	-18028.476	-11292.046	-6883.434

Standard Errors in parentheses adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). * $p < .10$, ** $p < .05$, *** $p < .01$

Table A6: Poisson Regression for The Americas - Total Civilian Deaths

Dependent Variable:	Total Civilian Deaths			
	(1)	(2)	(3)	(4)
Log GRP	0.468	-0.826	3.098	3.915
	(1.557)	(2.311)	(2.918)	(3.069)
Political Regime			-3.303***	-3.966***
			(1.004)	(1.327)
Log Income			-0.623	3.231
			(1.744)	(3.330)
Log Population			-4.899***	-17.237***
			(1.724)	(6.576)
Unemployment			0.177***	0.212***
			(0.031)	(0.041)
Country FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	Yes
Number of Observations	432	432	419	419
Pseudo R-Squared	0.404	0.628	0.553	0.728
χ^2	0.090	0.128	103.238	62.183
Log Likelihood	-21919.756	-13678.442	-15669.210	-9525.902

Standard Errors in parentheses adjusted for country and year clusters. Robust standard errors lead to similar results. Singletons were removed that affects the standard errors and not the estimates (Correia 2015; Correia et al. 2020). * $p < .10$, ** $p < .05$, *** $p < .01$

Appendix B

Table B1 presents summary statistics across the different intensities of civilian conflict.

Table B1: Variables Across Civilian Conflict Categories

Columns by: Civilian Death Conflict Categories	No Conflict	Mid-Intensity Conflict	High-Intensity Conflict	P-value
n (%)	2338 (77.9)	594 (19.8)	69 (2.3)	
Government Religious Preference, mean (sd)	2.328 (0.588)	2.467 (0.556)	2.491 (0.610)	0.00
Total Deaths, mean (sd)	68.706 (1202.508)	1412.418 (2776.458)	1.7e+04 (6.4e+04)	0.00
Civilian Deaths, mean (sd)	1.472 (4.280)	232.921 (229.769)	1.1e+04 (6.3e+04)	0.00
Political Regime, mean (sd)	0.606 (0.323)	0.561 (0.283)	0.437 (0.266)	0.00
GDP per capita (thousand constant 2010 US$), mean (sd)	7.358 (12.469)	3.493 (5.918)	2.182 (6.071)	0.00
Population (millions), mean (sd)	39.375 (136.204)	88.421 (223.628)	82.010 (222.622)	0.00
Unemployment (ILO Estimate %), mean (sd)	8.637 (7.062)	7.257 (6.287)	7.148 (5.833)	0.00

As illustrated in Table B1, a higher mean of GRP coincides with a greater state of conflict in a country. Countries, in a state of conflict, were more likely to be in a state of minor conflict than major conflict. The intriguing observation is the increase in the standard deviation of government religion preference with greater magnitudes of conflict, even though there are fewer observations. This can be explained by outliers within the sample, as when conflict is at extreme levels, the same can be said for GRP. Countries in a higher state of conflict are more autocratic than democratic and have less income.

For the above specification, we use the ordered logit model with the categories of conflict which is a function of civilian deaths. That is, we also estimate an ordered logit model:

$$y_{it}^* = GRP_{it} + polreg_{it} + \eta_{it} + \nu_i + \epsilon_{it}.$$

which have the three ordered categories

$$conflict_{it} = 0 \text{ if } y_{it}^* \leq \kappa_1$$
$$conflict_{it} = 1 \text{ if } \kappa_1 < y_{it}^* \leq \kappa_2$$
$$conflict_{it} = 2 \text{ if } \kappa_2 < y_{it}^*$$

that does not neglect the discreteness of the different states of conflict a country finds itself in (Orme & Combs-Orme 2009). These type of models are useful variants of the Poisson model since the dependent variable is an ordered count variable where the intervals or measurements between outcomes are arbitrary (Honoré & Kyriazidou 2000). Note that the errors, ϵ_{it}, are logistically distributed and independent of ν_i. Let p_{itj} be the

probability of observing outcome $j = 0, 1$ and 2 for $conflict$. Since there are only three possible outcomes for the dependent variable, it follows that

$$
\begin{aligned}
p_{it0} &= P(conflict = 0) = \frac{1}{1 + exp(\eta_{it} - \kappa_1 + \nu_i)} \\
p_{it1} &= P(conflict = 1) = \frac{1}{1 + exp(\eta_{it} - \kappa_2 + \nu_i)} \\
&\quad - \frac{1}{1 + exp(\eta_{it} - \kappa_1 + \nu_i)} \\
p_{it2} &= P(conflict = 2) = 1 - \frac{1}{1 + exp(\eta_{it} - \kappa_2 + \nu_i)}.
\end{aligned}
$$

The greater these probabilities are, the greater the chances of observing that state of conflict. The effect GRP have on these probabilities is investigated by the use of marginal effects. Therefore, given a change in the value of GRP, the changes to the probabilities in the above three equations are examined and presented in Table 6.