**Supplemental Materials for "BEYOND CIVIL WAR:**
**Quantitative examination of causes of violence within countries"**
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## Appendix A: Event Count Models of Banks Variables

In Table 2, we present logistic regressions of the incidence of ten types of violence—civil war, internal armed conflict, non-state violence, one-sided violence, revolts, guerrilla warfare, assassinations, coups, purges, and riots. The latter six variables are from the Banks (2005) data and are actually count data—recording the number of each type of events for each country year. In Table 3 (presented here), we use the count models and run these as negative binomial regressions.[1] The results are described briefly in the text of the paper.

[1] We use negative binomial (instead of poisson regressions) because each of the dependent variables (except for coups) demonstrated over dispersion.

**Table 3: Negative Binomial Regressions of Incidence of Violence**

| | Revolts | Guerrilla Warfare | Assassinations | Coups | Purges | Riots |
|---|---|---|---|---|---|---|
| **Log GDP per capita** | -0.045 (0.049) | 0.035 (0.068) | **0.169* (0.074)** | **-0.307* (0.124)** | 0.026 (0.066) | **0.143 (0.075)** |
| **Ethnic Fractionalization** | 1.271 (0.789) | 0.957 (0.866) | 0.901 (1.146) | 1.040 (1.181) | 0.362 (1.015) | -0.065 (0.918) |
| **Ethnic Fractionalization$^2$** | -1.040 (0.741) | -1.123 (0.834) | -1.160 (1.136) | -1.301 (1.149) | -0.803 (1.114) | 0.272 (1.015) |
| **Polity** | -0.009 (0.007) | -0.010 (0.011) | **0.032** (0.010)** | **-0.138** (0.025)** | **-0.055** (0.008)** | **0.022** (0.008)** |
| **Polity$^2$** | **-0.008** (0.002)** | **-0.004** (0.002)** | **-0.007** (0.002)** | **-0.020** (0.004)** | **-0.006** (0.002)** | **-0.006** (0.002)** |
| **Log Mountains** | **0.075* (0.038)** | **0.128* (0.055)** | **0.279** (0.051)** | 0.020 (0.055) | 0.060 (0.053) | **0.069 (0.042)** |
| **Political Instability** | **0.402** (0.086)** | **0.253 (0.146)** | **0.695** (0.178)** | **1.761** (0.172)** | **0.571** (0.128)** | **0.430** (0.125)** |
| **Log Population** | **0.110** (0.030)** | **0.136** (0.041)** | **0.180** (0.046)** | **-0.137* (0.062)** | **0.243** (0.046)** | **0.406** (0.041)** |
| **Peace Years** | **-0.293** (0.026)** | **-0.350** (0.036)** | **-0.228** (0.029)** | 0.011 (0.028) | **-0.340** (0.031)** | **-0.259** (0.030)** |
| **Peace Years$^2$** | **0.010** (0.002)** | **0.012** (0.002)** | **0.007** (0.001)** | -0.001 (0.001) | **0.012** (0.002)** | **0.009** (0.002)** |
| **Peace Years$^3$** | **-0.000** (0.000)** | **-0.000** (0.000)** | **-0.000** (0.000)** | 0.000 (0.000) | **-0.000** (0.000)** | **-0.000** (0.000)** |
| **Constant** | **-1.620** (0.564)** | **-2.312** (0.750)** | **-4.473** (0.820)** | 0.035 (1.296) | **-3.204** (0.696)** | **-5.219** (0.715)** |
| **Observations** | 6498 | 6491 | 6498 | 6603 | 6498 | 6498 |
| **Model Chi$^2$** | **650.25**** | **483.12**** | **285.02**** | **431.95**** | **522.33**** | **452.04**** |

Reported are coefficients with robust standard errors, clustered on country, in parentheses
Bold means statistically significant at the 0.1 level, *p<0.05, **p<0.01 (two-tailed tests)

**Appendix B: Different forms of violence as nested phenomena**

Table 2 in "Beyond Civil War: Quantitative Analysis of Violence within countries" demonstrates that several independent variables found in the literature to have significant effects on the likelihood that countries will experience civil war have similar effects for other forms of internal violence as well. We argue that this is because many theoretical arguments that seek to explain civil war are more generally arguments about violence within states. However, there are other potential explanations for the similar effects of covariates across violence types. One possibility is that these different measures of violence are nested phenomena, taking place within one another. To explore this possibility, we do two things. First, we examine the correlation structure between the ten measures of violence.[2] Table 4 presents the correlation structure.

**Table 4: Correlation between measures of violence incidence**

| | **Civil War** | **Internal Armed Conflict** | **Non-State War** | **One-Sided Violence** | **Revolts** | **Guerrilla Warfare** | **Assassinations** | **Coups** | **Purges** | **Riots** |
|---|---|---|---|---|---|---|---|---|---|---|
| **Civil War** | 1.000 | | | | | | | | | |
| **Internal Armed Conflict** | 0.525 | 1.000 | | | | | | | | |
| **Non-State War** | 0.214 | 0.278 | 1.000 | | | | | | | |
| **One-Sided Violence** | 0.469 | 0.620 | 0.318 | 1.000 | | | | | | |
| **Revolts** | 0.441 | 0.557 | 0.253 | 0.445 | 1.000 | | | | | |
| **Guerrilla Warfare** | 0.422 | 0.518 | 0.257 | 0.407 | 0.561 | 1.000 | | | | |
| **Assassinations** | 0.161 | 0.205 | 0.121 | 0.205 | 0.245 | 0.242 | 1.000 | | | |
| **Coups** | 0.162 | 0.133 | 0.046 | 0.102 | 0.248 | 0.080 | 0.055 | 1.000 | | |
| **Purges** | 0.014 | 0.045 | 0.049 | 0.065 | 0.117 | 0.043 | 0.038 | 0.066 | 1.000 | |
| **Riots** | 0.019 | 0.059 | 0.120 | 0.078 | 0.104 | 0.041 | 0.141 | 0.073 | 0.072 | 1.000 |

[2] For the Banks (2005) variables, we examine the correlation between the dichotomous measure of incidence, rather than the count measures, here.

The correlation structure presented in Table 4 demonstrates that, as might be expected, the correlation between all 10 of these types of violence is positive. That is, violence of any type measured here is more likely in years in which violence of some other type is occurring. This suggests that, to some extent at least, these are related phenomena in that they occur together. However, Table 4 also reveals that the correlations between these variables are not particularly high. The highest correlation identified is that between one-sided violence and internal armed conflict, at 0.62. One-sided violence (which could be committed either by rebel groups or governments) is much more likely to occur when an internal armed conflict is ongoing. Guerrilla warfare shows a high correlation with other variables that measure large-scale conflict, such as civil war, internal armed conflict, and revolts. This is not surprising in that guerrilla warfare is often a strategy used within such wars. None of these measures, however, shows such a high correlation that it would appear to occur just within a larger category like civil war. Rather, each of these measures seems to capture a somewhat different phenomenon.

We conducted a difference of means test comparing years with, and without, an internal armed conflict to determine if the six types of violence analyzed in Table 2 are more likely to occur when an internal armed conflict is underway and found that, for all six, they were. The means of each of the six violence variables are statistically significantly higher for the subset of observations when there is an internal armed conflict in that year than for the subset of years when internal armed conflict equals zero (all t-tests are statistically significant).

To further examine whether these other forms of violence are essentially nested within civil war, we also ran models predicting the non-civil war dependent variables excluding the years of ongoing civil war. Most of the incidences of internal violence are quite rare. It would not be surprising if these rare events are more likely to occur during an ongoing civil war, because civil control breaks down in some civil wars. If the various types of violence are more likely to occur when civil wars are already underway, then the reported similarity between the results across the incidences of various types might not be an indication of causal similarity in the incidence of all of these different types of violence, but rather an artifact of the fact that the breakdown of civil control accompanying many civil wars makes violence more likely as well.

In Table 5 we replicate the analyses of Table 2 excluding all years of an ongoing internal armed conflict. The results are substantively very similar to those reported in Table 2.[3] What these sensitivity analyses demonstrate is that the reasonable expectation that riots, purges, coups, revolts and other forms of internal violence are more likely during civil wars is true. They are. However, even absent the presence of civil wars, these less severe forms of violence are more likely to occur under the same general conditions that make civil war more likely. Thus, the similarity between the results reported in Tables 2 and 3 is not an artifact of one kind of violence being a subset of the other.

[3] We also replicated the event count models in Table 3 excluding years of ongoing civil wars. Those results are virtually identical to those in Table 3—the only significant sign shift was for Log GDP per capita for guerrilla warfare. That variable was negative and insignificant in Table 3; it becomes positive and significant when years of ongoing civil war are excluded.

**Table 5: Replication of Table 2, excluding years of ongoing internal armed conflict**

| | Non-State War | One-Sided Violence | Revolts | Guerrilla Warfare | Assassin-ations | Coups | Purges | Riots |
|---|---|---|---|---|---|---|---|---|
| **Log GDP per capita** | -0.198 (0.172) | **-0.423 (0.256)** | -0.065 (0.084) | 0.090 (0.085) | 0.115 (0.078) | **-0.396* (0.159)** | 0.027 (0.076) | 0.057 (0.073) |
| **Ethnic Frac-tionalization** | **7.410 (3.820)** | 2.434 (2.931) | 0.819 (0.965) | 1.083 (0.936) | 0.105 (0.939) | 2.281 (1.490) | 0.349 (0.857) | 0.382 (0.815) |
| **Ethnic Frac-tionalization$^2$** | -2.288 (3.156) | -0.459 (2.793) | -0.189 (1.044) | -1.444 (1.044) | 0.031 (0.969) | **-2.692* (1.565)** | -0.966 (1.001) | -0.526 (0.940) |
| **Polity** | **0.078* (0.037)** | 0.007 (0.033) | -0.014 (0.010) | 0.008 (0.010) | **0.027* (0.011)** | **-0.132** (0.029)** | **-0.047** (0.009)** | **0.022** (0.008)** |
| **Polity$^2$** | **-0.022** (0.008)** | -0.006 (0.006) | **-0.008** (0.002)** | **-0.008** (0.002)** | -0.003 (0.002) | **-0.021** (0.006)** | **-0.007** (0.002)** | **-0.009** (0.002)** |
| **Log Mountains** | -0.063 (0.098) | -0.008 (0.115) | **0.093 (0.050)** | **0.202** (0.058)** | **0.214** (0.050)** | 0.101 (0.083) | 0.072 (0.050) | **0.093* (0.042)** |
| **Political Instability** | -0.253 (0.299) | **0.629* (0.295)** | **0.763** (0.134)** | 0.257 (0.161) | **0.832** (0.157)** | **1.770** (0.218)** | **0.508** (0.145)** | **0.344** (0.134)** |
| **Log Population** | **0.735** (0.124)** | **0.526** (0.119)** | 0.028 (0.047) | **0.141** (0.042)** | **0.162** (0.042)** | -0.134 (0.085) | **0.245** (0.036)** | **0.306** (0.044)** |
| **Peace Years** | **-1.026** (0.219)** | **-0.527* (0.233)** | **-0.256** (0.044)** | **-0.349** (0.037)** | **-0.171** (0.025)** | -0.036 (0.046) | **-0.358** (0.037)** | **-0.290** (0.035)** |
| **Peace Years$^2$** | **0.134** (0.038)** | 0.015 (0.040) | **0.010** (0.003)** | **0.012** (0.002)** | **0.005** (0.001)** | 0.001 (0.002) | **0.014** (0.003)** | **0.012** (0.003)** |
| **Peace Years$^3$** | **-0.005** (0.002)** | 0.001 (0.002) | **-0.000* 0.000** | **-0.000** (0.000)** | **-0.000** (0.000)** | -0.000 (0.000) | **-0.000** (0.000)** | **-0.000** (0.000)** |
| **Constant** | **-9.663** (2.679)** | -4.793 (3.137) | -1.347 (0.937) | **-3.230** 0.836** | **-4.602** (0.880)** | 0.466 (1.694) | **-3.278** (0.653)** | **-3.836** (0.689)** |
| **Observations** | 1917 | 1917 | 5472 | 5469 | 5472 | 5559 | 5472 | 5472 |
| **Model Chi$^2$** | **134.34**** | **122.56**** | **308.13**** | **334.57**** | **240.43**** | **230.98**** | **441.38**** | **366.87**** |

Reported are coefficients with robust standard errors, clustered on country, in parentheses
Bold means statistically significant at the 0.1 level, *p<0.05, **p<0.01 (two-tailed tests)

**Appendix C: The Sequencing of Violence**

Another potential reason why the same variables could show similar correlations with different measures of internal violence is if some forms of violence lead to others. We investigate two possibilities. First, civil war may follow periods of other forms of violence. Second, the outbreak of civil war may lead to other forms of violence. To investigate these possibilities, we conduct two sets of analyses. Table 6 reports the result of regressions of our eight non-civil war measures of violence with a one-year lagged measure of internal armed conflict as an additional independent variable. The lagged measure of internal armed conflict is positive and significant for non-state wars, one-sided violence, revolts, guerrilla warfare, and assassinations, suggesting that civil war in a previous year significantly increases the occurrence of these other forms of violence. However, the effects of the original covariates on the other types of violence is still substantively very similar to that reported in the article in Table 2, indicating that this effect of civil war is not the reason these variables show similar effects across measures of violence.

Table 7 reports the results of eight regressions of internal armed conflict with one-year lagged measure of the eight other measures of violence. Again, these regressions show that, in general, civil war is more likely to follow other forms of internal violence.[4] One-sided violence, revolts, guerrilla warfare, assassinations, and riots all make internal armed conflict more likely in the following year, and non-state war is positive although not quite statistically significant. The effects of the different covariates on civil war are very consistent regardless of whether and which lagged measure of violence is used. Again, these results suggest that, while violence does lead to violence in a subsequent year, this sequencing does not negate the similar effect of covariates across different types of internal violence.

Tables 6 and 7 allow for examining the effect of violence in one year on other types of violence in the next year. It is also possible, however, that violence occurs in sequence within the same year. To examine the possibility that internal armed conflict and other forms of violence influence each other, we also conducted bivariate probits pairing internal armed conflict with each of the eight non-civil war variables. Table 8 reports the result of these eight bivariate probits.[5] They show that, in general, there is a correlation between civil war and other forms of violence—the "rho" term examines whether there is significant correlation in errors in the two equations, and it is significant for all the regressions except those pairing internal armed conflict with riots and purges. Despite this correlation, Table 8 shows that the original covariates generally have similar effects, both in sign and significance, on each of the dependent variables in these bivariate probits. This suggests that the similarity shown in Table 2 is not driven by correlation of errors.

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[4] We also ran six logistic regressions of internal armed conflict using one-year lagged values of the count variables (rather than the dichotomous incidence measures) from the Banks (2005) data. These analyses were substantively identical to those presented in Table 7.

[5] Because we are estimating two dependent variables at the same time, it was unclear what "peace years" variables made sense to include. We have excluded the peace years variables. We have run these models with civil war peace years variables and the results are substantively similar, although fewer variables are statistically significant when civil war peace years are included.

**Table 6: Logistic Regressions of Internal Armed Conflict with lagged measures of other DVs**

| | Non-State Wars | One-Sided Violence | Revolts | Guerrilla Warfare | Assassin-ations | Coups | Purges | Riots |
|---|---|---|---|---|---|---|---|---|
| **Internal Armed Conflict (one-year lag)** | **0.805** (0.254)** | **1.962** (0.219)** | **1.470** (0.139)** | **1.344** (0.121)** | **0.726** (0.129)** | 0.166 (0.193) | -0.222 (0.145) | -0.123 (0.147) |
| **Log GDP per capita** | **-0.394* (0.174)** | **-0.402** (0.141)** | -0.066 (0.072) | 0.018 (0.066) | **0.217** (0.063)** | **-0.344** (0.134)** | 0.019 (0.074) | 0.108 (0.077) |
| **Ethnic Frac-tionalization** | **6.338* (2.503)** | **2.811 (1.523)** | 0.706 (0.921) | **1.702 (0.888)** | 0.275 (0.822) | 1.506 (1.231) | 0.200 (0.824) | 0.465 (0.840) |
| **Ethnic Frac-tionalization$^2$** | -3.027 (2.244) | -1.757 (1.445) | -0.330 (0.996) | **-1.936* (0.894)** | -0.430 (0.833) | -1.740 (1.235) | -0.687 (0.941) | -0.355 (0.965) |
| **Polity** | 0.026 (0.026) | 0.007 (0.018) | **-0.020* (0.008)** | 0.007 (0.009) | **0.024** (0.009)** | **-0.141** (0.026)** | **-0.047** (0.008)** | **0.022** (0.007)** |
| **Polity$^2$** | **-0.012* (0.006)** | -0.004 (0.004) | **-0.009** (0.002)** | **-0.006** (0.002)** | **-0.005** (0.002)** | **-0.020** (0.005)** | **-0.006** (0.002)** | **-0.008** (0.002)** |
| **Log Mountains** | 0.006 (0.086) | -0.043 (0.073) | **0.081 (0.045)** | **0.164** (0.057)** | **0.212** (0.043)** | 0.017 (0.066) | 0.072 (0.047) | 0.063 (0.039) |
| **Political Instability** | 0.343 (0.248) | 0.230 (0.224) | **0.671** (0.116)** | **0.259 (0.133)** | **0.727** (0.142)** | **1.890** (0.176)** | **0.462** (0.134)** | **0.383** (0.114)** |
| **Log Population** | **0.532** (0.093)** | **0.460** (0.070)** | 0.011 (0.036) | **0.114** (0.039)** | **0.167** (0.035)** | **-0.156* (0.069)** | **0.233** (0.032)** | **0.302** (0.042)** |
| **Peace Years** | **-1.106** (0.180)** | **-0.865** (0.144)** | **-0.274** (0.026)** | **-0.367** (0.034)** | **-0.187** (0.023)** | 0.007 (0.029 | **-0.330** (0.029)** | **-0.304** (0.035)** |
| **Peace Years$^2$** | **0.156** (0.036)** | **0.084** (0.030)** | **0.010** (0.002)** | **0.013** (0.002)** | **0.006** (0.001)** | -0.001 (0.001) | **0.011** (0.002)** | **0.012** (0.003)** |
| **Peace Years$^3$** | **-0.007** (0.002)** | -0.002 (0.002) | **-0.000** (0.000)** | **-0.000** (0.000)** | **-0.000** (0.000)** | 0.000 (0.000) | **-0.000** (0.000)** | **-0.000** (0.000)** |
| **Constant** | **-5.516** (1.958)** | **-3.298* (1.533)** | -0.866 (0.725) | **-2.437** (0.673)** | **-5.229** (0.701)** | 0.390 (1.397) | **-3.154** (0.631)** | **-4.268** (0.664)** |
| **Observations** | 2378 | 2378 | 6497 | 6490 | 6497 | 6597 | 6497 | 6497 |
| **Model Chi$^2$** | **206.75**** | **417.82**** | **710.31**** | **704.64**** | **434.18**** | **353.96**** | **517.00**** | **395.58**** |

Reported are coefficients with robust standard errors, clustered on country, in parentheses
Bold means statistically significant at the 0.1 level, *p<0.05, **p<0.01 (two-tailed tests)

**Table 7: Logistic Regressions of Internal Armed Conflict, including lagged measures of other DVs**

| | Non-State Wars | One-Sided Violence | Revolts | Guerrilla Warfare | Assassin-ations | Coups | Purges | Riots |
|---|---|---|---|---|---|---|---|---|
| **Lagged DV** | 0.452 (0.297) | **1.108** ** **(0.214)** | **0.363** ** **(0.130)** | **0.913** ** **(0.151)** | **0.412** ** **(0.160)** | -0.195 (0.256) | -0.267 (0.167) | **0.251 (0.131)** |
| **Log GDP per capita** | -0.106 (0.147) | -0.042 (0.139) | -0.071 (0.106) | -0.087 (0.107) | -0.109 (0.108) | -0.065 (0.103) | -0.085 (0.105) | -0.100 (0.104) |
| **Ethnic Frac-tionalization** | 2.572 (1.705) | 2.581 (1.650) | **4.678** ** **(1.720)** | **4.423** ** **(1.670)** | **4.623** ** **(1.727)** | **4.932** ** **(1.711)** | **4.432** * **(1.741)** | **4.471** * **(1.748)** |
| **Ethnic Frac-tionalization$^2$** | -1.952 (1.561) | -1.926 (1.498) | **-3.813** * **(1.574)** | **-3.417** * **(1.541)** | **-3.732** * **(1.577)** | **-4.075** ** **(1.550)** | **-3.620** * **(1.583)** | **-3.660** * **(1.589)** |
| **Polity** | -0.017 (0.018) | -0.016 (0.018) | 0.010 (0.013) | 0.009 (0.014) | 0.007 (0.013) | 0.007 (0.013) | 0.007 (0.013) | 0.008 (0.013) |
| **Polity$^2$** | -0.006 (0.004) | -0.006 (0.004) | -0.004 (0.003) | -0.004 (0.003) | -0.004 (0.003) | -0.004 (0.003) | -0.005 (0.003) | -0.005 (0.003) |
| **Log Mountains** | **0.128 (0.070)** | **0.156** * **(0.067)** | 0.079 (0.063) | 0.055 (0.063) | 0.070 (0.062) | 0.080 (0.060) | 0.089 (0.062) | 0.086 (0.062) |
| **Political Instability** | -0.137 (0.239) | -0.113 (0.242) | 0.144 (0.160) | 0.185 (0.160) | 0.151 (0.156) | 0.225 (0.147) | 0.206 (0.163) | 0.151 (0.161) |
| **Log Population** | **0.303** ** **(0.076)** | **0.257** ** **(0.075)** | **0.294** ** **(0.063)** | **0.269** ** **(0.063)** | **0.279** ** **(0.061)** | **0.289** ** **(0.059)** | **0.294** ** **(0.061)** | **0.273** ** **(0.062)** |
| **Peace Years** | **-0.925** ** **(0.107)** | **-0.820** ** **(0.099)** | **-0.901** ** **(0.070)** | **-0.867** ** **(0.067)** | **-0.925** ** **(0.068)** | **-0.951** ** **(0.070)** | **-0.927** ** **(0.068)** | **-0.934** ** **(0.067)** |
| **Peace Years$^2$** | **0.042** ** **(0.006)** | **0.037** ** **(0.006)** | **0.043** ** **(0.005)** | **0.041** ** **(0.005)** | **0.044** ** **(0.005)** | **0.046** ** **(0.005)** | **0.044** ** **(0.005)** | **0.045** ** **(0.005)** |
| **Peace Years$^3$** | **-0.001** ** **(0.000)** | **-0.000** ** **(0.000)** | **-0.001** ** **(0.000)** | **-0.001** ** **(0.000)** | **-0.001** ** **(0.000)** | **-0.001** ** **(0.000)** | **-0.001** ** **(0.000)** | **-0.001** ** **(0.000)** |
| **Constant** | -2.062 (1.305) | **-2.587** * **(1.174)** | **-2.757** ** **(0.839)** | **-2.583** ** **(0.849)** | **-2.209** * **(0.872)** | **-2.678** ** **(0.849)** | **-2.395** ** **(0.866)** | **-2.153** ** **(0.857)** |
| **Observations** | 2246 | 2246 | 6586 | 6579 | 6586 | 6742 | 6586 | 6586 |
| **Model Chi$^2$** | **258.79** ** | **300.60** ** | **758.01** ** | **740.63** ** | **723.59** ** | **701.29** ** | **739.27** ** | **752.47** ** |

Reported are coefficients with robust standard errors, clustered on country, in parentheses
Bold means statistically significant at the 0.1 level, *p<0.05, **p<0.01 (two-tailed tests)

**Table 8: Bivariate Probits of Internal Armed Conflict paired with each other DV**

| | **Model 1** | | **Model 2** | | **Model 3** | | **Model 4** | |
|---|---|---|---|---|---|---|---|---|
| | **Internal Armed Conflict** | **Non-State War** | **Internal Armed Conflict** | **One-Sided Violence** | **Internal Armed Conflict** | **Revolts** | **Internal Armed Conflict** | **Guerrilla Warfare** |
| **Log GDP per capita** | **-0.239*** | **-0.300**** | **-0.235*** | **-0.325**** | **-0.210*** | **-0.195**** | **-0.214*** | **-0.112** |
| | **(0.108)** | **(0.112)** | **(0.104)** | **(0.097)** | **(0.087)** | **(0.049)** | **(0.087)** | **(0.062)** |
| **Ethnic Fractionalization** | **3.646*** | **3.506** | **3.662*** | **2.988*** | **4.224**** | **1.531*** | **4.101**** | **2.545**** |
| | **(1.484)** | **(1.799)** | **(1.473)** | **(1.261)** | **(1.401)** | **(0.758)** | **(1.333)** | **(0.837)** |
| **Ethnic Fractionalization$^2$** | **-3.218*** | -1.486 | **-3.229*** | **-2.331** | **-3.388*** | -1.134 | **-3.321*** | **-2.511**** |
| | **(1.532)** | (1.672) | **(1.519)** | **(1.252)** | **(1.363)** | (0.820) | **(1.311)** | **(0.872)** |
| **Polity** | -0.001 | 0.005 | -0.002 | -0.004 | 0.016 | -0.005 | 0.016 | 0.010 |
| | (0.014) | (0.017) | (0.014) | (0.013) | (0.010) | (0.006) | (0.010) | (0.007) |
| **Polity$^2$** | **-0.008**** | **-0.006** | **-0.008**** | **-0.005** | **-0.006*** | **-0.007**** | **-0.006*** | **-0.005**** |
| | **(0.003)** | **(0.003)** | **(0.003)** | **(0.003)** | **(0.002)** | **(0.001)** | **(0.002)** | **(0.002)** |
| **Log Mountains** | **0.133*** | 0.037 | **0.132*** | 0.032 | 0.054 | **0.069*** | 0.054 | **0.131**** |
| | **(0.064)** | (0.058) | **(0.064)** | (0.058) | (0.057) | **(0.035)** | (0.056) | **(0.045)** |
| **Political Instability** | 0.093 | 0.211 | 0.112 | 0.178 | **0.251*** | **0.528**** | **0.242*** | **0.241**** |
| | (0.130) | (0.144) | (0.127) | (0.129) | **(0.101)** | **(0.071)** | **(0.100)** | **(0.086)** |
| **Log Population** | **0.251**** | **0.393**** | **0.247**** | **0.345**** | **0.237**** | **0.067*** | **0.237**** | **0.164**** |
| | **(0.067)** | **(0.059)** | **(0.067)** | **(0.059)** | **(0.056)** | **(0.030)** | **(0.056)** | **(0.041)** |
| **Constant** | **-2.052**** | **-4.176**** | **-2.071*** | **-2.462*** | **-2.490**** | -0.383 | **-2.403**** | **-2.196**** |
| | **(0.927)** | **(1.185)** | **(0.904)** | **(1.002)** | **(0.816)** | (0.518) | **(0.798)** | **(0.597)** |
| **Observations** | 2381 | | 2381 | | 6498 | | 6491 | |
| **Model Chi$^2$** | **157.51**** | | **118.56**** | | **202.85**** | | **136.79**** | |
| **Rho** | **0.366**** | | **0.839**** | | **0.668**** | | **0.684**** | |
| | **(0.089)** | | **(0.031)** | | **(0.035)** | | **(0.032)** | |

Reported are coefficients with robust standard errors, clustered on country, in parentheses
Bold means statistically significant at the 0.1 level, *p<0.05, **p<0.01 (two-tailed tests)

**Table 8: Bivariate Probits of Internal Armed Conflict paired with each other DV (continued)**

| | **Model 5** | | **Model 6** | | **Model 7** | | **Model 8** | |
|---|---|---|---|---|---|---|---|---|
| | **Internal Armed Conflict** | **Assassinations** | **Internal Armed Conflict** | **Coups** | **Internal Armed Conflict** | **Purges** | **Internal Armed Conflict** | **Riots** |
| **Log GDP per capita** | **-0.223*** **(0.088)** | **0.081** **(0.047)** | **-0.208*** **(0.087)** | **-0.212**** **(0.062)** | **-0.216*** **(0.087)** | -0.054 (0.061) | **-0.218*** **(0.087)** | 0.064 (0.055) |
| **Ethnic Fractionalization** | **4.234**** **(1.430)** | 0.562 (0.583) | **4.336**** **(1.433)** | **1.229** **(0.691)** | **4.187**** **(1.432)** | 0.450 (0.696) | **4.180**** **(1.429)** | 0.557 (0.678) |
| **Ethnic Fractionalization$^2$** | **-3.425*** **(1.385)** | -0.532 (0.606) | **-3.541*** **(1.389)** | **-1.328** **(0.684)** | **-3.394*** **(1.386)** | -1.042 (0.790) | **-3.391*** **(1.384)** | -0.533 (0.766) |
| **Polity** | 0.017 (0.010) | **0.020**** **(0.006)** | 0.016 (0.011) | **-0.059**** **(0.011)** | **0.017** **(0.010)** | **-0.038**** **(0.006)** | **0.017** **(0.010)** | **0.017**** **(0.006)** |
| **Polity$^2$** | **-0.006*** **(0.002)** | **-0.005**** **(0.001)** | **-0.005*** **(0.002)** | **-0.009**** **(0.002)** | **-0.006*** **(0.002)** | **-0.004**** **(0.001)** | **-0.006*** **(0.002)** | **-0.006**** **(0.001)** |
| **Log Mountains** | 0.051 (0.057) | **0.138**** **(0.031)** | 0.049 (0.056) | 0.004 (0.035) | 0.051 (0.057) | 0.050 (0.035) | 0.051 (0.057) | **0.054** **(0.031)** |
| **Political Instability** | **0.232*** **(0.100)** | **0.464**** **(0.086)** | **0.225*** **(0.101)** | **0.940**** **(0.077)** | **0.224*** **(0.102)** | **0.364**** **(0.088)** | **0.226*** **(0.102)** | **0.334**** **(0.076)** |
| **Log Population** | **0.236**** **(0.056)** | **0.144**** **(0.029)** | **0.230**** **(0.056)** | **-0.092*** **(0.036)** | **0.236**** **(0.056)** | **0.157**** **(0.025)** | **0.237**** **(0.056)** | **0.238**** **(0.031)** |
| **Constant** | **-2.356**** **(0.808)** | **-3.576**** **(0.487)** | **-2.444**** **(0.798)** | 0.335 (0.662) | **-2.389**** **(0.813)** | **-2.258**** **(0.558)** | **-2.379**** **(0.811)** | **-3.621**** **(0.498)** |
| **Observations** | 6498 | | 6603 | | 6498 | | 6498 | |
| **Model Chi$^2$** | **223.87**** | | **289.08**** | | **229.19**** | | **237.21**** | |
| **Rho** | **0.352**** **(0.045)** | | **0.247**** **(0.055)** | | -0.056 (0.054) | | 0.039 (0.058) | |

Reported are coefficients with robust standard errors, clustered on country, in parentheses
Bold means statistically significant at the 0.1 level, *p<0.05, **p<0.01 (two-tailed tests)

**Appendix D: Conditional Pathways**

We also explored whether the effect of the original variables on the various measures of internal violence varies across different contexts. In particular, it is possible that some of these variables have different effects on these types of violence in democracies versus in non-democracies. To test for a possibility like this, we created a dichotomous variable indicating whether a country was a democracy in each year. Countries were coded as democracies if they had a score greater than 5 on the Polity2 variable from the Polity IV project, and as non-democracies otherwise. We then divided the sample between democracies and non-democracies, so designated, and replicated the ten logistic regressions from Table 2, excluding the measure of Polity2 and its square term. Table 9 reports the results of these analyses.

The split-sample regressions reveal some interesting patterns. In the overwhelming majority of these split-samples, variables had the same sign for both democracy and non-democracy subsets. There were instances in which coefficients had different signs in the two samples, as well as cases where one of these coefficients was significant. Log GDP per capita, for example, is a negative and significant predictor of revolts in the set of non-democracies and a positive (but insignificant) predictor of revolts in non-democracies. In only one case, however, is a variable statistically significant in both samples but with a sign switch on the coefficient—log GDP per capita for riots. In general, then, the effect of these variables is similar in both democracies and non-democracies.

**Table 9: Split-Sample Replications of Table 2 in Democracies and Non-Democracies**

| | Civil War | | Internal Armed Conflict | | Non-State War | | One-Sided Violence | | Revolts | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Non-Democ | Democ | Non-Democ | Democ | Non-Democ | Democ | Non-Democ | Democ | Non-Democ | Democ |
| Log GDP per capita | -0.178 (0.129) | **-0.415** (0.149)** | -0.116 (0.108) | 0.021 (0.249) | **-0.536** (0.194)** | -0.275 (0.284) | **-0.545** (0.142)** | **-0.594 (0.341)** | **-0.150** (0.072)* | 0.059 (0.164) |
| Ethnic Fractionalization | **4.190** (2.083)* | **7.833** (3.649)* | **3.529** (1.639)* | **10.837** (4.510)* | **6.941** (3.249)* | 5.206 (4.972) | **3.762 (2.193)** | 5.082 (3.373) | 1.698 (1.076) | **4.654** (1.974)* |
| Ethnic Fractionalization$^2$ | **-3.487 (1.865)** | **-6.480 (3.483)** | **-2.716 (1.544)** | **-10.071** (4.373)* | -3.658 (2.892) | -1.334 (4.251) | -3.140 (2.106) | -3.427 (3.087) | -1.052 (1.143) | **-4.548** (1.999)* |
| Log Mountains | 0.119 (0.084) | **0.705** (0.254)** | **0.101 (0.058)** | 0.131 (0.161) | 0.049 (0.095) | **0.346 (0.197)** | 0.059 (0.083) | 0.186 (0.206) | **0.118** (0.046)** | 0.111 (0.095) |
| Political Instability | **0.511** (0.202)* | 0.578 (0.653) | **0.373** (0.159)* | -0.257 (0.502) | **0.721** (0.270)** | -0.223 (0.891) | **0.425 (0.233)** | -0.238 (0.587) | **0.757** (0.119)** | **0.566** (0.278)* |
| Log Population | **0.265** (0.087)** | **0.467** (0.115)** | **0.255** (0.061)** | **0.372** (0.128)** | **0.539** (0.115)** | **0.605** (0.141)** | **0.406** (0.081)** | **0.635** (0.223)** | **0.084** (0.040)* | **0.290** (0.079)** |
| Peace Years | **-0.861 (0.104)** | **-0.735** (0.151)** | **-0.910** (0.059)** | **-1.078** (0.186)** | **-1.170** (0.206)** | **-1.068** (0.383)** | **-1.254** (0.162)** | **-1.056** (0.259)** | **-0.355** (0.034)** | **-0.394** (0.083)** |
| Peace Years$^2$ | **0.037 (0.007)** | **0.028** (0.007)** | **0.045** (0.005)** | **0.048** (0.013)** | **0.168** (0.046)** | **0.165** (0.070)* | **0.150** (0.037)** | 0.081 (0.050) | **0.013** (0.002)** | **0.016** (0.006)** |
| Peace Years$^3$ | **-0.000** (0.000)** | **-0.000** (0.000)** | **-0.001** (0.000)** | **-0.001** (0.000)* | **-0.008** (0.003)** | **-0.007** (0.003)* | **-0.006** (0.002)** | -0.001 (0.003) | **-0.000** (0.000)** | **-0.000 (0.000)** |
| Constant | **-2.483** (1.247)* | **-6.101** (1.891)** | **-2.065** (0.950)* | **-5.462** (1.872)** | **-4.827** (2.197)* | **-8.725** (3.848)** | -0.891 (1.501) | -3.639 (2.270) | -0.943 (0.700) | **-5.439** (1.615)** |
| Observations | 4639 | 2192 | 4639 | 2192 | 1408 | 973 | 1408 | 973 | 4423 | 2075 |
| Model Chi$^2$ | **320.95**** | **197.33**** | **550.64**** | **244.39**** | **141.26**** | **122.32**** | **244.56**** | **86.43**** | **345.52**** | **139.71**** |

Reported are coefficients with robust standard errors, clustered on country, in parentheses
Bold means statistically significant at the 0.1 level, *p<0.05, **p<0.01 (two-tailed tests)

**Table 9: Split-Sample Replications of Table 2 in Democracies and Non-Democracies (continued)**

| | Guerrilla Warfare | | Assassinations | | Coups | | Purges | | Riots | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Non-Democ | Democ | Non-Democ | Democ | Non-Democ | Democ | Non-Democ | Democ | Non-Democ | Democ |
| **Log GDP per capita** | -0.056 (0.083) | -0.027 (0.128) | **0.254** ** **(0.073)** | 0.081 (0.112) | **-0.357** ** **(0.130)** | **-1.494** * **(0.696)** | 0.101 (0.073) | **-0.601** ** **(0.187)** | **0.298** ** **(0.091)** | **-0.276** * **(0.116)** |
| **Ethnic Fractionalization** | **2.369** * **(1.160)** | **3.379** **(1.773)** | 0.380 (1.187) | 0.867 (1.282) | 1.580 (1.301) | -2.636 (7.051) | -0.109 (0.886) | 0.812 (2.127) | -0.118 (1.136) | 1.630 (1.318) |
| **Ethnic Fractionalization$^2$** | **-2.283** * **(1.143)** | -2.809 (2.020) | -0.474 (1.232) | -0.542 (1.356) | -1.707 (1.297) | 1.039 (7.226) | -0.385 (0.954) | -2.307 (2.355) | 0.464 (1.272) | -2.278 (1.490) |
| **Log Mountains** | **0.178** ** **(0.066)** | 0.100 (0.119) | **0.244** ** **(0.061)** | **0.184** ** **(0.074)** | 0.034 (0.066) | -0.246 (0.261) | **0.086** **(0.053)** | -0.114 (0.105) | **0.123** ** **(0.046)** | -0.013 (0.067) |
| **Political Instability** | **0.491** ** **(0.142)** | -0.098 (0.277) | **0.849** ** **(0.173)** | **0.911** ** **(0.257)** | **1.779** ** **(0.178)** | **3.960** ** **(1.240)** | **0.421** ** **(0.129)** | **0.601** **(0.339)** | **0.607** ** **(0.122)** | 0.093 (0.226) |
| **Log Population** | **0.126** ** **(0.045)** | **0.317** ** **(0.086)** | **0.155** ** **(0.047)** | **0.269** ** **(0.051)** | **-0.127** * **(0.063)** | 0.034 (0.322) | **0.236** ** **(0.034)** | **0.250** ** **(0.093)** | **0.275** ** **(0.051)** | **0.384** ** **(0.073)** |
| **Peace Years** | **-0.452** ** **(0.048)** | **-0.496** ** **(0.047)** | **-0.216** ** **(0.028)** | **-0.198** ** **(0.041)** | -0.013 (0.030) | -0.032 (0.175) | **-0.332** ** **(0.033)** | **-0.245** ** **(0.070)** | **-0.289** ** **(0.034)** | **-0.362** ** **(0.058)** |
| **Peace Years$^2$** | **0.016** ** **(0.003)** | **0.020** ** **(0.002)** | **0.007** ** **(0.001)** | **0.006** ** **(0.002)** | -0.001 (0.001) | 0.003 (0.008) | **0.011** ** **(0.002)** | **0.008** * **(0.003)** | **0.011** ** **(0.002)** | **0.018** ** **(0.005)** |
| **Peace Years$^3$** | **-0.000** ** **(0.000)** | **-0.000** ** **(0.000)** | **-0.000** ** **(0.000)** | **-0.000** ** **(0.000)** | 0.000 (0.000) | -0.000 (0.000) | **-0.000** ** **(0.000)** | **-0.000** * **(0.000)** | **-0.000** ** **(0.000)** | **-0.000** * **(0.000)** |
| **Constant** | **-1.903** * **(0.774)** | **-4.254** ** **(1.428)** | **-5.519** ** **(0.756)** | **-5.239** ** **(1.173)** | 0.178 (1.306) | 5.809 (5.041) | **-3.860** ** **(0.675)** | 1.093 (1.970) | **-6.077** ** **(0.903)** | **-1.936** * **(0.938)** |
| **Observations** | 4416 | 2075 | 4423 | 2075 | 4514 | 2089 | 4423 | 2075 | 4423 | 2075 |
| **Model Chi$^2$** | **350.68** ** | **248.20** ** | **242.71** ** | **171.05** ** | **270.57** ** | **54.29** ** | **414.95** ** | **109.66** ** | **276.24** ** | **231.88** ** |

Reported are coefficients with robust standard errors, clustered on country, in parentheses
Bold means statistically significant at the 0.1 level, *p<0.05, **p<0.01 (two-tailed tests)