Supplemental Appendix For

The Impact of Atrocities on Development: Evidence from a Disaggregated Analysis

Contents

The Impact of Socioeconomic Activity on Political Violence

Research on the relationship between political violence and adverse socioeconomic conditions often focuses on how the latter affects the former. For example, scholars linked low socioeconomic conditions to higher conflict risk through pathways such as greed and opportunity. Advancing a greed-based perspective, Collier and Hoeffler (2004) argue that low levels of male secondary education, low economic growth, and low GDP per capita are indicators of low forgone earnings in economies that tend to be primary-commodity producers. Civil wars hence arise under these soecioeconomic conditions because individuals seek to appropriate such natural resources for private consumption, while the availability of easy-to-loot resources provides 'start up funding' for nascent rebel groups.

Scholars that purport an opportunity-based perspective, such as Fearon and Laitin (2003), similarly focus on low GDP per capita, alongside other indicators of state weakness (e.g., percent of mountainous coverage). However, they differ from the economic-centric perspective in taking a broader socioeconomic view in explaining civil war. In particular, these state-capacity focused researchers link these features to political instability and state weakness by arguing that they facilitate the prevalence of insurgency as a technology of conflict, thereby leading to greater risk of civil war. Although these two perspectives are still often used as explanations of civil war, both greed- and opportunity-based motivations have been criticized recently, among other reasons, for the weak predictive power of the underlying models (e.g., Ward et al. 2010) and the fact that these relationships are not supported in local (as opposed to country) level analyses (e.g., Koren and Sarbahi 2018).

Beyond armed conflict, scholars that study violence against civilians, specifically, similarly pointed to the role of adverse socioeconomic conditions in facilitating behaviors such as terrorism (e.g., Piazza 2008), atrocities (e.g., Khanna and Zimmermann 2017; Bagozzi et al. 2017), and mass killing (e.g., Valentino et al. 2004; Easterly et al. 2006). Recent research also finds that in many contexts higher level of socioeconomic development are linked to intensified violence against civilians (e.g., Ulfelder 2012).

Summary Statistics

Table A1: Summary Statistics for Dependent and Independent Variables

	Min	Median	Mean	Max	Std. Dev.
NTL_{it}	0	0	1.192	61.256	3.465
NTL_{it-1}	0	0	1.1721	61.256	3.422
$Atrocities_{it}$	0	0	0.006	231	0.342
$Atrocities_{it-1}$	0	0	0.006	231	0.339
$Atrocities_{it-2}$	0	0	0.005	231	0.338
$Atrocities_{it-3}$	0	0	0.005	231	0.340
$Atrocities_{it-4}$	0	0	0.005	231	0.340
$Atrocities\ (1\ dic.)_{it-1}$	0	0	0.003	1	0.052
$Atrocities\ (10\ dic.)_{it-1}$	0	0	5.004e-05	1	0.007
$Atrocities\ (20\ dic.)_{it-1}$	0	0	1.946e-05	1	0.004
$Atrocities\ (1\ dic.)_{it-2}$	0	0	0.003	1	0.052
$Atrocities\ (10\ dic.)_{it-2}$	0	0	4.317e-05	1	0.007
$Atrocities\ (20\ dic.)_{it-2}$	0	0	1.668e-05	1	0.004
$Atrocities\ (non\text{-}ML)_{it-1}$	0	0	0.004	59	0.169
$Atrocities\ (non\text{-}ML)_{it-2}$	0	0	0.004	59	0.161
$Atrocities\ (state)_{it-1}$	0	0	0.001	54	0.101
$Atrocities\ (state)_{it-2}$	0	0	0.001	49	0.075
$Atrocities\ (non\text{-}state)_{it-1}$	0	0	0.004.	227	0.316
$Atrocities\ (non\text{-}state)_{it-2}$	0	0	0.004	227	0.323
$Atrocities\ (GED)_{it-1}$	0	0	0.010	110	0.324
$Atrocities\ (GED)_{it-2}$	0	0	0.010	110	0.323
$Atrocities\ (ACLED)_{it-1}$	0	0	0.015	24	0.274
$Atrocities\ (ACLED)_{it-2}$	0	0	0.015	24	0.274
$Population_{it}$[1]	0	8.334	7.824	16.721	3.747
$Exclusion_{it}$	0	0	0.451	6	0.598
$Polity2_{jt}$	-10	6	4.095	10	6.106
$Military\ expenditure_{jt}$[1]	2.525e-05	1.061	1.120	3.704	0.393
$GDP\ PC_{jt}$[1]	4.760	8.958	8.833	9 11.626	1.404
$Oil\ Production_{jt}$[1]	0	18.240	15.699	20.031	6.048
$Gas\ Production_{jt}$[1]	0	5.696	5.093	8.424	2.858
$Drought_{it}$	0	0	0.043	1.1667	0.058
$Prec._{it}$[1]	0.1158	6.420	6.261	8.719	1.088
$Temp._{it}$	-25.029	11.553	10.472	57.546	14.313
$UCDP\ CW_{jt}$[2]	0	1	0.635	1	0.481
$UCDP\ CW_{jt-1}$[2]	0	1	0.646	1	0.478
$Cap.\ distance_{it}$[1]	1.020	6.986	6.924	8.870	1.111
$Arms\ imp._{jt}$[1]	0	19.057	18.664	22.366	2.334
$Life\ exp._{jt}$	31.964	70.072	69.695	83.332	8.557
$CIRI_{jt}$	0	7	7.580	14	4.602

[1] Natural log.
[2] Information on these UCDP variables is missing for nearly half the sample.

Additional Models from the Main Article

Table A2: Different Atrocity Thresholds

	1 Atrocity	**10 Atrocities**	**20 Atrocities**
$Atrocities_{it-1}$	-0.053^{*}	-0.683	-2.036^{***}
	(0.027)	(0.501)	(0.153)
$Atrocities_{it-2}$	-0.025	-0.984^{**}	-2.691^{***}
	(0.029)	(0.473)	(0.262)
$Population_{it}$ [1]	0.206^{***}	0.207^{***}	0.207^{***}
	(0.008)	(0.008)	(0.008)
$Exclusion_{it}$	0.040^{***}	0.040^{***}	0.040^{***}
	(0.004)	(0.004)	(0.004)
$Polity2_{jt}$	-0.008^{***}	-0.008^{***}	-0.008^{***}
	(0.001)	(0.001)	(0.001)
NTL_{it-1}	0.658^{***}	0.658^{***}	0.658^{***}
	(0.007)	(0.007)	(0.007)
$Military\ expenditure_{jt}$ [1]	-0.055^{***}	-0.055^{***}	-0.055^{***}
	(0.005)	(0.005)	(0.005)
$GDP\ PC_{jt}$ [1]	0.307^{***}	0.307^{***}	0.307^{***}
	(0.011)	(0.011)	(0.011)
$Oil\ Production_{jt}$ [1]	-0.013^{***}	-0.013^{***}	-0.013^{***}
	(0.0004)	(0.0004)	(0.0004)
$Gas\ Production_{jt}$ [1]	-0.006^{**}	-0.006^{**}	-0.006^{**}
	(0.003)	(0.003)	(0.003)
Observations	738,880	738,880	738,880
R^2	0.972	0.972	0.972
Adjusted R^2	0.971	0.971	0.971

Note: *p<0.1; **p<0.05; ***p<0.01. Values in parentheses are robust standard errors clustered by grid cell.

[1] In natural log form.

Table A3: Sensitivity to Contemporary Atrocities and Deeper Atrocity Lags

	OLS							GMM						
	Lag 0-1	**Lag 0-2**	**Lag 3**	**Lag 4**	**Lags 1-3**	**Lags 1-4**	**Lag 0-3**	**Lag 0-1**	**Lag 0-2**	**Lag 3**	**Lag 4**	**Lags 1-3**	**Lags 1-4**	**Lag 0-3**
$Atrocities_{it}$	0.005	0.009					0.012	−0.058**	−0.028*					0.039
	(0.012)	(0.012)					(0.015)	(0.023)	(0.016)					(0.062)
$Atrocities_{it-1}$	−0.040***	−0.032***			−0.034***	−0.036***	−0.036***	−0.057***	−0.112***			−0.073***	−0.165***	−0.041
	(0.012)	(0.012)			(0.012)	(0.012)	(0.012)	(0.015)	(0.030)			(0.028)	(0.047)	(0.064)
$Atrocities_{it-2}$		−0.038***			−0.045***	−0.046***	−0.046***		−0.109***			−0.159***	−0.290***	−0.148***
		(0.014)			(0.014)	(0.014)	(0.014)		(0.019)			(0.037)	(0.080)	(0.039)
$Atrocities_{it-3}$			0.009		0.020	0.019	0.019			−0.275**		−0.260***	−0.552***	−0.258***
			(0.013)		(0.013)	(0.013)	(0.013)			(0.109)		(0.096)	(0.160)	(0.094)
$Atrocities_{it-4}$				−0.005		0.012					−0.185***		0.044	
				(0.013)		(0.015)					(0.070)		(0.037)	
$Population_{it-1}$[1]	0.200***	0.206***	0.201***	0.200***	0.200***	0.200***	0.200***	0.159***	0.157***	0.159***	0.155***	0.157***	0.151***	0.157***
	(0.007)	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
$Exclusion_{it}$	0.042***	0.040***	0.041***	0.042***	0.041***	0.041***	0.041***	0.017***	0.019***	0.020***	−0.009	0.020***	−0.010	0.020***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.006)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)
$Polity2_{jt}$	−0.008***	−0.008***	−0.005***	−0.008***	−0.005***	−0.005***	−0.005***	−0.006***	−0.006***	−0.008***	−0.007***	−0.008***	−0.007***	−0.008***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.0005)	(0.0005)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
NTL_{it-1}	0.675***	0.658***	0.639***	0.675***	0.639***	0.639***	0.639***	−0.410***	−0.410***	−0.415***	−0.422***	−0.415***	−0.421***	−0.414***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.004)	(0.005)
$Military\ exp._{jt}$[1]	−0.049***	−0.054***	−0.041***	−0.049***	−0.040***	−0.040***	−0.040***	−0.024***	−0.023***	−0.011*	−0.053***	−0.011	−0.055***	−0.011
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)	(0.007)	(0.008)	(0.007)	(0.008)	(0.007)
$GDP\ PC_{jt}$[1]	0.295***	0.307***	0.310***	0.295***	0.310***	0.310***	0.310***	0.476***	0.450***	0.514***	0.457***	0.515***	0.455***	0.515***
	(0.010)	(0.011)	(0.011)	(0.010)	(0.011)	(0.011)	(0.011)	(0.019)	(0.020)	(0.021)	(0.023)	(0.021)	(0.023)	(0.021)
$Oil\ Prod._{jt}$[1]	−0.013***	−0.013***	−0.008***	−0.013***	−0.008***	−0.008***	−0.008***	−0.002***	−0.002***	−0.002***	0.001**	−0.002***	0.001**	−0.002***
	(0.0003)	(0.0004)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0003)	(0.0004)	(0.001)	(0.001)	(0.0005)	(0.001)	(0.0005)	(0.001)
$Gas\ Prod._{jt}$[1]	−0.007***	−0.006**	0.007***	−0.007***	0.007***	0.007***	0.007***	0.046***	0.057***	0.054***	0.067***	0.054***	0.068***	0.055***
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Obs.	782,976	738,880	698,677	782,976	698,677	698,677	698,677	685,139	645,399	605,481	556,187	605,481	556,187	698,677
R^2	0.973	0.972	0.974	0.973	0.974	0.974	0.974							
Adjusted R^2	0.971	0.971	0.972	0.971	0.972	0.972	0.972							
Sargan								153.911***	151.275***	119.773***	103.195***	116.417***	108.551***	115.214***
AR(1)								-2.682***	-3.294***	-5.435***	-13.817***	-4.818***	-16.696***	-4.915***

Note: *p<0.1; **p<0.05; ***p<0.01. Values in parentheses are robust standard errors clustered by grid cell.

[1] In natural log form.

Table A4: Strategic Heterogeneity

	Urban		Big City		Capital	
	OLS	**GMM**	**OLS**	**GMM**	**OLS**	**GMM**
$Atrocities_{it-1}$	−0.027*	−0.055**	−0.029*	−0.057*	−0.032**	−0.031
	(0.015)	(0.024)	(0.016)	(0.030)	(0.015)	(0.021)
$Atrocities_{it-2}$	−0.044***	−0.090***	−0.054***	−0.103***	−0.039***	−0.072***
	(0.015)	(0.020)	(0.014)	(0.027)	(0.013)	(0.019)
$Population_{it-1}$[1]	0.684***	0.695***	1.478***	1.322***	0.458***	1.182***
	(0.058)	(0.067)	(0.102)	(0.129)	(0.167)	(0.230)
$Exclusion_{it}$	0.061***	−0.020	0.105***	−0.016	0.198***	0.085
	(0.019)	(0.025)	(0.035)	(0.043)	(0.039)	(0.064)
$Polity2_{jt}$	−0.020***	−0.002	−0.027***	−0.005	−0.027***	−0.013***
	(0.003)	(0.002)	(0.004)	(0.003)	(0.006)	(0.005)
NTL_{it-1}	0.658***	−0.415***	0.607***	−0.416***	0.635***	−0.419***
	(0.009)	(0.005)	(0.011)	(0.006)	(0.019)	(0.012)
$Military\ exp._{jt}$[1]	−0.261***	−0.366***	−0.143**	−0.429***	−0.093	−0.168**
	(0.025)	(0.030)	(0.056)	(0.066)	(0.061)	(0.067)
$GDP\ PC_{jt}$[1]	0.590***	1.123***	1.063***	1.090***	0.573***	1.000***
	(0.029)	(0.069)	(0.065)	(0.129)	(0.119)	(0.185)
$Oil\ Prod._{jt}$[1]	−0.010**	−0.126***	0.006	−0.063***	−0.024***	−0.006
	(0.004)	(0.011)	(0.008)	(0.013)	(0.006)	(0.009)
$Gas\ Prod._{jt}$[1]	−0.082***	0.096***	0.013	0.136***	0.103***	0.079**
	(0.011)	(0.016)	(0.020)	(0.028)	(0.026)	(0.038)
Observations	163,138	9,826	74,918	4,550	18,082	1,195
R^2	0.976		0.977		0.984	
Adjusted R^2	0.974		0.976		0.983	
Sargan		104.37**		83.025**		84.186
AR(1)		104.11**		-4.256***		-0.206

Note: *p<0.1; **p<0.05; ***p<0.01. Values in parentheses are robust standard errors clustered by by grid cell.

[1] In natural log form.

Robustness Models

Table A5: Robustness Models (OLS)

	Cont.	Ext. Cont.	NTL	CW	State	Nonstate
$Atrocities_{it-1}$	-0.051^{***}	-0.048^{***}	-0.030^{**}	-0.059^{***}	0.019	-0.043^{***}
	(0.013)	(0.014)	(0.013)	(0.014)	(0.032)	(0.013)
$Atrocities_{it-2}$	-0.053^{***}	-0.051^{***}	-0.040^{***}	-0.069	-0.035^{***}	
	(0.013)	(0.012)	(0.014)	(0.052)	(0.013)	
$Population_{it-1}$ [1]	0.339^{***}	-0.069^{**}	0.392^{***}	0.359^{***}	0.206^{***}	0.206^{***}
	(0.013)	(0.029)	(0.018)	(0.013)	(0.008)	(0.008)
$Exclusion_{it}$	-0.050^{***}	0.031^{***}	0.058^{***}	0.005	0.040^{***}	0.040^{***}
	(0.008)	(0.010)	(0.008)	(0.007)	(0.004)	(0.004)
$Polity2_{jt}$	-0.006^{***}	-0.015^{***}	-0.012^{***}	-0.010^{***}	-0.008^{***}	-0.008^{***}
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
NTL_{it-1}	0.581^{***}	0.422^{***}	0.655^{***}	0.657^{***}	0.658^{***}	0.658^{***}
	(0.009)	(0.009)	(0.007)	(0.008)	(0.007)	(0.007)
$Military\ expenditure_{jt}$ [1]	-0.099^{***}	-0.115^{***}	-0.087^{***}	-0.099^{***}	-0.055^{***}	-0.055^{***}
	(0.008)	(0.012)	(0.012)	(0.009)	(0.005)	(0.005)
$GDP\ PC_{jt}$ [1]	0.760^{***}	1.402^{***}	0.440^{***}	0.342^{***} 0.307^{***}	0.307^{***}	
	(0.026)	(0.058)	(0.017)	(0.030)	(0.011)	(0.011)
$Oil\ Production_{jt}$ [1]	-0.012^{***}	-0.040^{***}	-0.017^{***}	-0.008^{***}	-0.013^{***}	-0.013^{***}
	(0.001)	(0.002)	(0.001)	(0.001)	(0.0004)	(0.0004)
$Gas\ Production_{jt}$ [1]	-0.032^{***}	-0.088^{***}	-0.017^{***}	0.011^{***}	-0.006^{**}	-0.006^{**}
	(0.005)	(0.007)	(0.004)	(0.004)	(0.003)	(0.003)
$Drought_{it}$	0.065^{***}	0.080^{***}				
	(0.018)	(0.025)				
$Prec._{it}$ [1]	0.008^{**}	-0.032^{***}				
	(0.004)	(0.005)				
$Temp._{it}$	0.0004	-0.004^{***}				
	(0.001)	(0.001)				
$UCDP\ CW_{jt}$	0.069^{***}	0.093^{***}				
	(0.004)	(0.006)				
$UCDP\ CW_{jt-1}$	0.045^{***}	0.105^{***}				
	(0.004)	(0.008)				
$Cap.\ distance_{it}$ [1]		-0.314^{***}				
		(0.024)				
$Arms\ imp._{jt}$ [1]		-0.021^{***}				
		(0.002)				
$Life\ exp._{jt}$		0.023^{***}				
		(0.004)				
$CIRI_{jt}$		-0.044^{***}				
		(0.002)				
Observations	314,829	201,051	408,363	228,195	738,880	738,880
R^2	0.971	0.974	0.973	0.968	0.972	0.972
Adjusted R^2	0.969	0.970	0.970	0.964	0.971	0.971

Note: *p<0.1; **p<0.05; ***p<0.01. Values in parentheses are robust standard errors clustered by grid cell.

[1] In natural log form.

Table A6: Robustness Models (GMM)

	Cont.	Ext. Cont.[2]	NTL	CW	State	Nonstate
$Atrocities_{it-1}$	−0.106***	−0.051**	−0.088***	−0.087***	−0.139**	−0.120***
	(0.033)	(0.024)	(0.029)	(0.029)	(0.066)	(0.035)
$Atrocities_{it-2}$	−0.115***	−0.084***	−0.099***	−0.097***	−0.120***	−0.119***
	(0.021)	(0.019)	(0.018)	(0.018)	(0.041)	(0.022)
$Population_{it-1}$[1]	0.076***	0.228***	0.395***	0.029*	0.159***	0.157***
	(0.013)	(0.025)	(0.023)	(0.016)	(0.009)	(0.009)
$Exclusion_{it}$	−0.001	−0.034***	−0.013	−0.016*	0.020***	0.018***
	(0.012)	(0.012)	(0.011)	(0.009)	(0.006)	(0.006)
$Polity2_{jt}$	0.006***	0.009***	−0.008***	0.004***	−0.006***	−0.006***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.0005)	(0.0005)
NTL_{it-1}	−0.358***	−0.430***	−0.403***	−0.320***	−0.410***	−0.409***
	(0.010)	(0.009)	(0.004)	(0.011)	(0.004)	(0.004)
$Military\ expenditure_{jt}$[1]	0.043***	0.011*	−0.129***	−0.003	−0.021***	−0.023***
	(0.005)	(0.006)	(0.014)	(0.006)	(0.005)	(0.005)
$GDP\ PC_{jt}$[1]	0.615***	2.119***	0.572***	0.069***	0.452***	0.449***
	(0.029)	(0.063)	(0.035)	(0.027)	(0.020)	(0.020)
$Oil\ Production_{jt}$[1]	0.008***	−0.408***	−0.024***	0.020***	−0.003***	−0.002***
	(0.001)	(0.016)	(0.003)	(0.001)	(0.001)	(0.001)
$Gas\ Production_{jt}$[1]	0.051***	−0.048***	0.070***	0.053***	0.056***	0.057***
	(0.006)	(0.008)	(0.007)	(0.007)	(0.004)	(0.004)
$Drought_{it}$	0.062***	0.144***				
	(0.015)	(0.023)				
$Prec._{it}$[1]	−0.011***	−0.053***				
	(0.004)	(0.005)				
$Temp._{it}$	−0.012***	−0.017***				
	(0.001)	(0.001)				
$UCDP\ CW_{jt}$	0.043***	0.060***				
	(0.005)	(0.005)				
$UCDP\ CW_{jt-1}$	0.109***	0.138***				
	(0.005)	(0.006)				
$Arms\ imp._{jt}$[1]		−0.041***				
		(0.003)				
$Life\ exp._{jt}$		0.097***				
		(0.007)				
$CIRI_{jt}$		−0.044***				
		(0.003)				
Observations	275,335	155,909	343,622	184,617	645,399	645,399
Sargan	142.89***	102.22***	129.54***	126.68***	196.87***	150.96***
AR(1)	-4.857***	-8.027***	-3.172***	-3.512***	-3.285***	-3.228***

Note: *p<0.1; **p<0.05; ***p<0.01. Values in parentheses are two-step robust standard errors.

[1] In natural log form.

[2] We were forced to omit *Capital distance* from this model due to convergence issues.

Table A7: Robustness Models – Alternative Datasets

	GED		ACLED	
	OLS	**GMM**	**OLS**	**GMM**
$Atrocities\ (GED)_{it-1}$	-0.012^{**}	-0.052^{***}		
	(0.005)	(0.012)		
$Atrocities\ (GED)_{it-2}$	-0.018^{***}	-0.045^{***}		
	(0.005)	(0.010)		
$Atrocities\ (ACLED)_{it-1}$			-0.012^{*}	-0.013^{**}
			(0.007)	(0.006)
$Atrocities\ (ACLED)_{it-2}$			-0.015^{**}	-0.011^{**}
			(0.006)	(0.005)
$Population_{it-1}$ [1]	0.207^{***}	0.158^{***}	-0.075^{***}	-0.018^{*}
	(0.008)	(0.009)	(0.009)	(0.011)
NTL_{it-1}	0.658^{***}	-0.412^{***}	0.745^{***}	-0.341^{***}
	(0.007)	(0.004)	(0.017)	(0.017)
$Exclusion_{it}$	0.040^{***}	0.020^{***}	0.015^{***}	0.024^{***}
	(0.004)	(0.006)	(0.005)	(0.005)
$Polity2_{jt}$	-0.008^{***}	-0.006^{***}	0.005^{***}	-0.004^{***}
	(0.001)	(0.0005)	(0.001)	(0.0004)
$Military\ expenditure_{jt}$ [1]	-0.055^{***}	-0.022^{***}	-0.023^{***}	-0.010^{***}
	(0.005)	(0.005)	(0.003)	(0.003)
$GDP\ PC_{jt}$ [1]	0.307^{***}	0.448^{***}	0.072^{***}	0.096^{***}
	(0.011)	(0.020)	(0.008)	(0.015)
$Oil\ Production_{jt}$ [1]	-0.013^{***}	-0.003^{***}	-0.002^{***}	0.001^{***}
	(0.0004)	(0.001)	(0.0002)	(0.0002)
$Gas\ Production_{jt}$ [1]	-0.006^{**}	0.057^{***}	0.004^{*}	-0.001
	(0.003)	(0.004)	(0.002)	(0.003)
Observations	738,880	738,880	124,249	124,249
R^2	0.972		0.979	
Adjusted R^2	0.971		0.977	
Sargan		141.29^{***}		83.025
AR(1)		-2.620^{***}		1.425

Note: *p<0.1; **p<0.05; ***p<0.01. Values in parentheses are two-step robust standard errors.

[1] In natural log form.

[2] We were forced to omit *Capital distance* from this model due to convergence issues.

Table A8: Robustness Models – Reduced FEs

	OLS		GMM
	Year FEs	**GID FEs**	**One-Way Effects**
$Atrocities_{it-1}$	0.008	-0.031^{**}	-0.133^{***}
	(0.013)	(0.013)	(0.036)
$Atrocities_{it-2}$	0.020	-0.040^{***}	-0.124^{***}
	(0.013)	(0.015)	(0.022)
$Population_{it-1}$ [1]	0.017^{***}	0.237^{***}	0.212^{***}
	(0.0004)	(0.008)	(0.009)
NTL_{it-1}	0.995^{***}	0.633^{***}	-0.422^{***}
	(0.001)	(0.007)	(0.004)
$Exclusion_{it}$	-0.004^{***}	0.035^{***}	0.035^{***}
	(0.001)	(0.004)	(0.006)
$Polity2_{jt}$	-0.002^{***}	-0.007^{***}	0.004^{***}
	(0.0001)	(0.001)	(0.0005)
$Military\ expenditure_{jt}$ [1]	0.009^{***}	-0.075^{***}	-0.130^{***}
	(0.002)	(0.006)	(0.005)
$GDP\ PC_{jt}$ [1]	0.023^{***}	0.462^{***}	1.169^{***}
	(0.001)	(0.007)	(0.018)
$Oil\ Production_{jt}$ [1]	-0.001^{***}	-0.015^{***}	-0.014^{***}
	(0.0001)	(0.0004)	(0.0004)
$Gas\ Production_{jt}$ [1]	0.002^{***}	-0.019^{***}	0.143^{***}
	(0.0002)	(0.003)	(0.005)
Observations	738,880	738,880	738,880
R^2	0.967	0.969	
Adjusted R^2	0.967	0.967	
Sargan			182.98^{***}
AR(1)			-2.761^{***}

Note: *p<0.1; **p<0.05; ***p<0.01. Values in parentheses are two-step robust standard errors.

[1] In natural log form.

[2] We were forced to omit *Capital distance* from this model due to convergence issues.

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