Appendix for Migrate, Cooperate, or Resist: The Civilians' Dilemma in the Colombian Civil War, 1988–2010

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Content

Brief Description of the Social Struggles Database

The Centre of Research and Popular Education (CINEP) is a well-known Jesuit think tank located in Colombia. The organisation has a long trajectory researching various political aspects of Colombian history. Specifically, the centre analyses the particularities of the historical process by reviewing local and regional dynamics. Such emphasis has driven CINEP to conduct a large volume of fieldwork and create a set of datasets that address political issues across Colombia. One of these databases is the Social Struggles Database.

According to the codebook, the Social Struggles Database collates a set of social actions of more than ten people that temporarily alter the existing order to intentionally express demands or pressure solutions from the state (Archila N, et al. 2002, Archila Neira 2003).[1] CINEP uses national and regional newspapers, interviews with social movement leaders, and reports from social organisations to collect information about the different types of social mobilisation (Archila N, et al. 2002, Archila Neira 2003).

The database includes variables that describe each event in the sample. This classification characterises the repertoires of each case, including information such as dates, locations, type of demonstration, and the actors that participated in the mobilisation.[2] Regarding the topic of my research, the database differentiates three actors that are involved in the demonstration. The first are the conveners, who summon the demonstration. The second are participants, who only assist in the protest. Sometimes the database is specific, naming these actors, although this is not

[1] Despite the database uses the threshold of ten people, the database does not make descriptions on the size of the protest.

[2] For a further description of the coding rules of the database, please read Archila N. et al. (2002) and Archila Neira (2003).

always the case. The last category comprises adversaries, namely the institutions or political actors the demonstration is addressed to. Of the possible targets of the protest, the database includes as adversaries the Armed Forces and Irregular Groups (e.g. insurgents and paramilitaries) (Archila N, et al. 2002).

In this study, the dependent variable was the number of protests against any armed actor in each town per year, that is, all protests against armed forces, insurgents, and paramilitaries (see Figure 1). According to CINEP, 19.9% of the total number of demonstrations in Colombia between 1988 and 2010 were protests against one or more armed actors in the war. During the period under study here, there were 4,106 protests against armed actors across Colombia. Now, protests against armed actors were staged in 714 of Colombia's 1,120 municipalities. Protests were not concentrated in any particular region, but distributed across the country, as shown in Figure 1. The biggest metropolitan areas in Colombia (Bogotá, Medellin, and Cali) experienced more than 100 protests during this period.

The mobilisation was not so frequent before the nineties (See Figure 2). Actually, less than 5% of the municipalities experienced at least 1 protest against armed actors. However, such tendency changed at the around 1996. Since then, mobilising became more common within Colombian municipalities. On average, 9% of municipalities that have experienced at least one protest against armed actors between 1997 and 2010. Protest behaviour rise as well as the recrudescence of the civil conflict. According to Granada et. al. (2009), the number of civilian causalities, kidnappings, internal displaced people increased dramatically between the end and the beginning of the twenty-first century. In this sense, protests against armed actors is a reflection of the hardest moments of the Colombian civil conflict.

On the other hand, the rest of the protests in the database are considered as being unrelated to the war, as the demonstrations do not address actors fighting in the civil conflict (see

Figure 3). These demonstrations were directed towards various government organisations and the private sector.

Figure 1 Number of Protests against Armed Actors in Colombia, 1988-2010

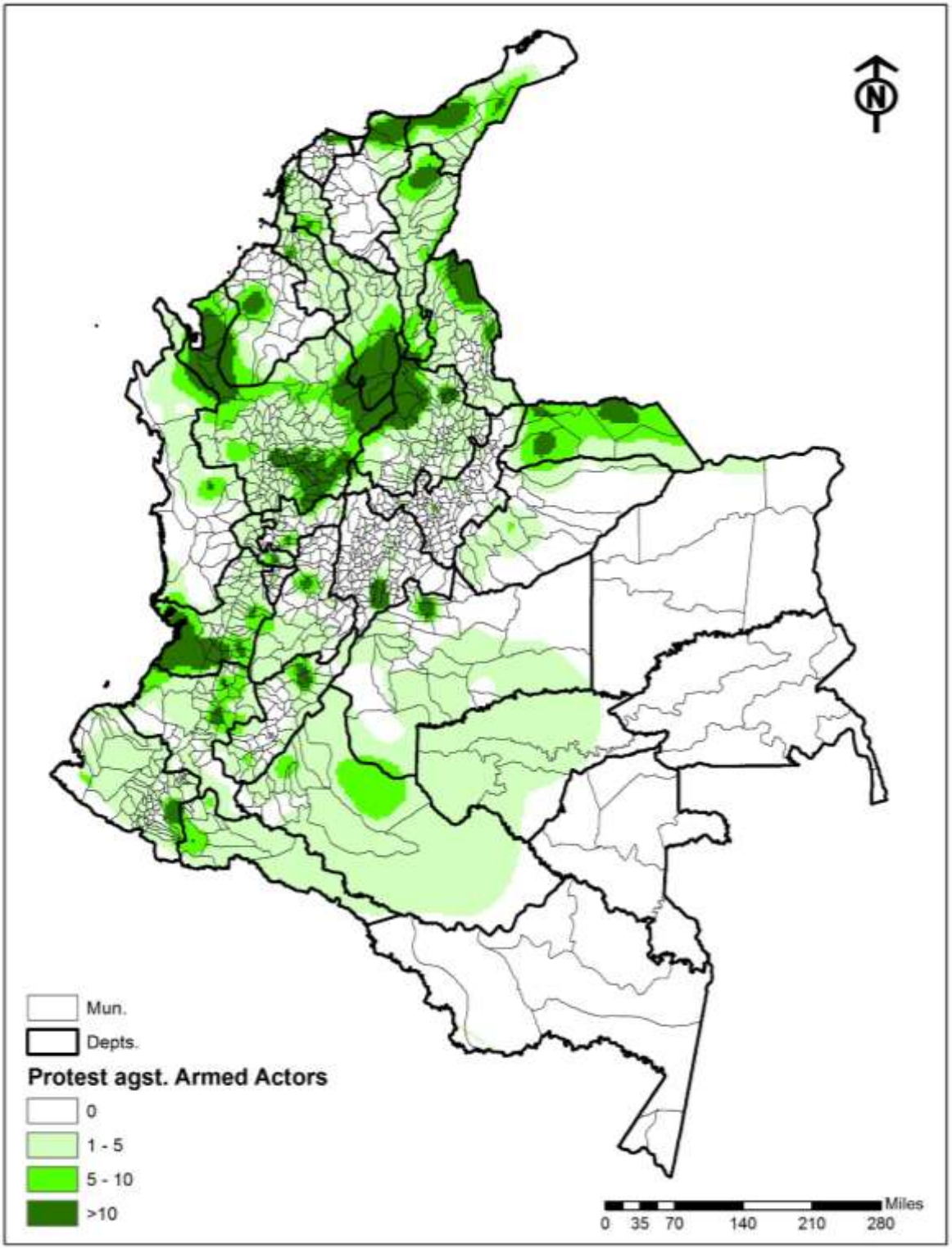


Figure 2 Number of Protests against Armed Actors in Colombia, 1988-2010

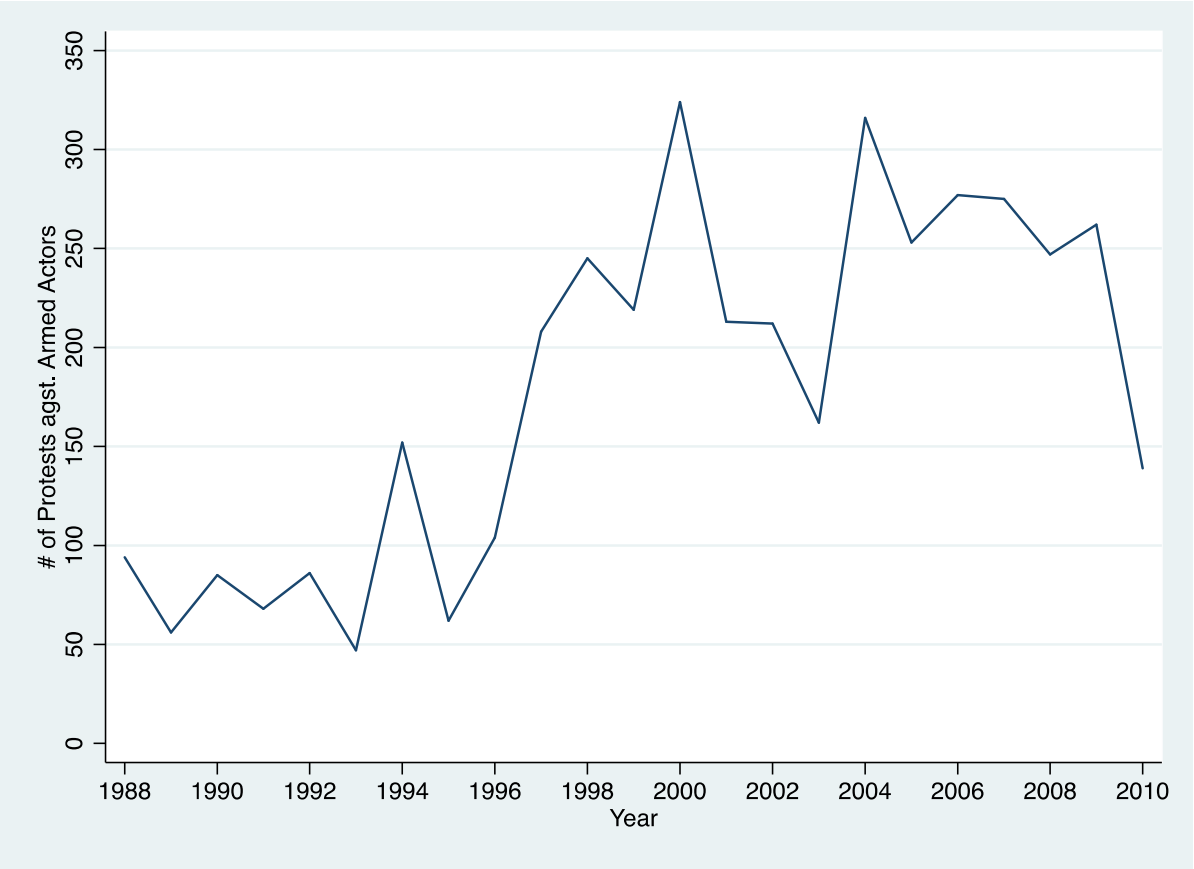
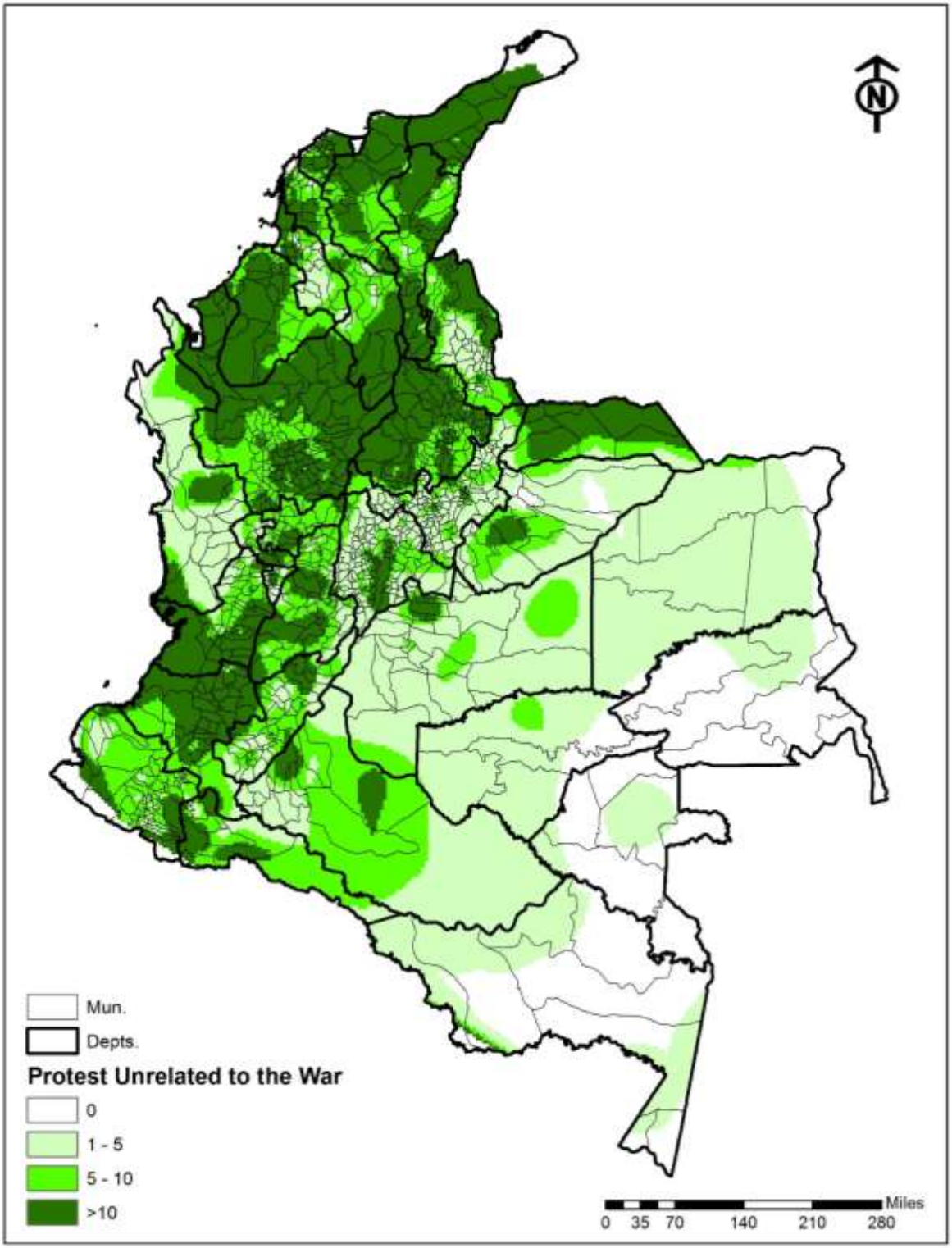


Figure 3 Number of Protests Unrelated to the War in Colombia, 1988-2010



Descriptive Statistics

Table 1 Descriptive Statistics

Variable	Mean	Standard Deviation	Min.	Max.
Protests against Armed Actors	.158	1.512	0	65
Ethnic Autonomies	.498	2.398	0	55
Foreign Aid	1.001	2.926	0	122
Victimisation Rate	.0002	.001	0	.136
Victimisation Rate^2	3.0e-6	.0002	0	.018
Protests Unrelated to the War	.636	3.391	0	138
Catholic and Christian Churches	4.555	22.462	1	622
Population Density (ln)	3.894	1.311	-1.952	11.957
Unsatisfied Basic Needs Index	44.411	20.205	5.4	100
Capital	0.27	.161	0	1

Main Models of the Paper

Table 2 Zero Inflated Models of Protest against Armed Actors, 1988-2010

	Model 1	Model 2	Model 3	Model 4	Model 5
Ethnic Autonomy		.034**			.019**
		(.008)			(.007)
Foreign Aid			.059**		.043**
			(.024)		(.018)
Victimisation Rate				188.098**	162.879**
				(56.823)	(56.031)
Victimisation Rate^2				-1311.705**	-1140.64**
				(410.661)	(401.524)
Protests Not Related	0.063**	.060**	.036*	.059**	.036*
to the Civil War	(0.187)	(.018)	(.018)	(.018)	(.016)
Catholic and	.001	.001	.002	.001	.002
Christian Churches	(.004)	(.004)	(.003)	(.003)	(.003)
Population Density	.041	.062	-.006	.068	.039
(ln)	(.121)	(.122)	(.101)	(.129)	(.116)
Unsatisfied Basic	-.006	-.006	-.007	-.006	-.008
Needs Index	(.005)	(.005)	(.004)	(.005)	(.005)
Capital	.692**	.671**	.735**	.604*	.625*
	(.281)	(.284)	(.285)	(.280)	(.286)
Constant	-1.133**	-1.246*	-1.013**	-1.190*	-1.099*
	(.574)	(.592)	(.480)	(.614)	(.553)
Inflate					
Protests Not Related	-.744**	-.753**	-.771**	-.734**	-.787**
to the Civil War	(.095)	(.106)	(.103)	(.107)	(.117)
Catholic and	-.296**	-.303**	-.321**	-.229**	-.242**
Christian Churches	(.059)	(.060)	(.064)	(.059)	(.065)
Population Density	.056	.146	.014	.030	.004
(ln)	(.139)	(.129)	(.128)	(.157)	(.145)
Unsatisfied Basic	-.012*	-.012*	-.014*	-.011*	-.013*
Needs Index	(.006)	(.006)	(.006)	(.007)	(.007)
Capital	.625	.839	.855	.339	.581
	(.635)	(.702)	(.655)	(.666)	(.686)
Constant	2.414**	1.521**	2.541**	2.158**	2.218**

	(.674)	(.504)	(.607)	(.781)	(.719)
Log likelihood	-7154.096	-7150.604	-6771.402	-6199.453	-5927.869
N	22700	22700	20744	15992	14934
N zero	20936	20936	19074	14399	13394
N nonzero	1764	1764	1695	1593	1540

Robust standard errors clustered by municipality in parentheses; significance tests are one-tailed, *p < .05; **p < .01.

Modifications on the Specification of the Main Models

Influence of Municipality Size on the Estimation

The size of municipalities is dissimilar in Colombia. While some have a large extension, others are small. This variation is based on the colonisation process of the Colombian territory. In general, small municipalities were colonised by the Spaniards after their arrival in the New World. These territories are mainly localised in the Andean Region of Colombia. During the XIX and XX, people migrated from the Andean region to the plains zones of the country (e.g. Eastern Llanos Basin, Orinoquia, Amazonia, and the Pacific Coast) (LeGrand 1984). Comparatively, these areas tend to have larger municipalities, since they have big territories with a small population (see Figure 3). In reality, it is more difficult for these municipalities to divide given the normativity around the subject. According to Law 136 of 1994 and Law 617 of 2000, the Colombian government recognises a territory as a municipality if the community that inhabits it can prove that at least 14,000 people live in the area. Furthermore, these people must generate the 5,000 current legal monthly minimum wage stipulated for the current income of a free destination over a period of 4 years.

For municipalities of recent colonisation, it is complicated to have the resources and population demanded by the government. The population density addresses the influence of the size of the population in the estimation process.

Nevertheless, I ran an additional model employing two extra control variables to consider municipality size. First, I included in the model a dummy variable to account for the geographic size of the municipality. This variable equals '1' when the municipality has an area larger than 250 km^2 and '0' otherwise. I did not use area as a control variable, because it produces problems of multicollinearity with the population density and ethnic autonomies variables. Most ethnic autonomies are located in municipalities with larger areas. The second variable accounts for the size of the population. This variable equals '1' when the municipality has more than 10,000 inhabitants and '0' otherwise. I did not use population as a control variable, because it produces problems of multicollinearity with the victimisation rate, victimisation rate^2, and population density variables.

The results for this model are not significantly different from those for the analysis. Ethnic autonomies and foreign aid still explain why people protest against armed actors. Both variables have a strong and positive relationship with protest behaviour against armed actors. Again, the rate of victims hurt by armed actors produces an inverted U shape for the probability of having a protest against any armed actor (see Table 3). Consequently, the three hypotheses postulated in this paper explain the minimum conditions that drive civilians to overcome their collective action problem and mobilise against armed actors.

Figure 4 Relationship between Population, Area, and Population Density

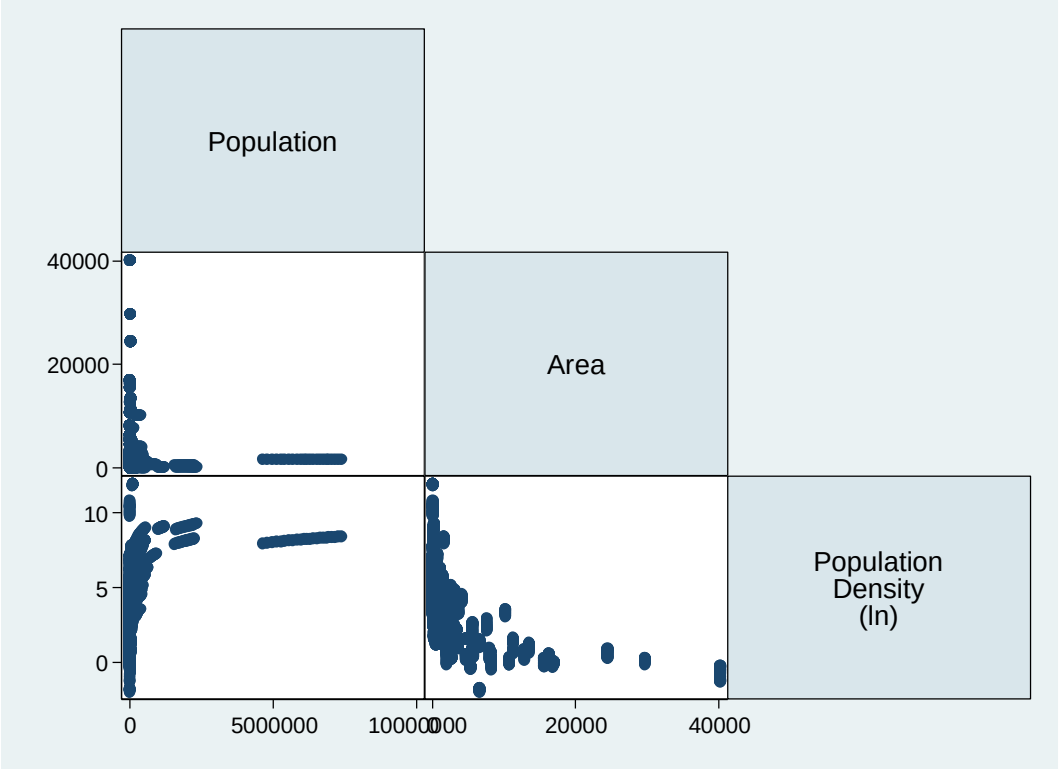


Table 3 Zero Inflated Models of Protest against Armed Actors, 1988-2010

(Size of Municipalities)

	Model 6
Ethnic Autonomy	.015*
	(.007)
Foreign Aid	.043**
	(.017)
Victimisation Rate	175.511**
	(59.155)
Victimisation Rate^2	-1212.401**
	(427.461)
Protests Not Related	0.033**
to the Civil War	(0.136)
Catholic and	.002
Christian Churches	(.003)
Population Density	.110
(ln)	(.127)
Unsatisfied Basic	-.008
Needs Index	(.005)
Capital	.467
	(.308)
Area 250 Km^2	.347
	(.304)
Population 10000	.320
	(.336)
Constant	-1.133**
	(.574)
Inflate	
Protests Not Related	-.745**
to the Civil War	(.137)
Catholic and	-.145**
Christian Churches	(.052)
Population Density	.023
(ln)	(.167)

Unsatisfied Basic Needs Index	-.010 (.006)
Capital	.177 (.738)
Area 250 Km^2	-.159 (.406)
Population 10000	-.395 (.378)
Constant	2.031** (.861)
Log likelihood	-5883.521
N	14934
N zero	13394
N nonzero	1540

Robust standard errors clustered by municipality in parentheses;
significance tests are one-tailed,
*p < .05; **p < .01.

Municipalities Exposed to Violence

The empirical analysis developed in the paper assumes that all municipalities have the same risk to be afflicted with the violent dynamics of the civil conflict. For that reason, I estimate zan additional model to assess how the predictions of my main independent variables change according to the proximity to war areas. The first model is estimated with a subsample of the main dataset. I include the observations that face violent actions in times *t*, *t-1*, and *t-2*. Following this strategy, I can incorporate municipalities that are experiencing violence in time *t*, and municipalities that are not suffering violence in time *t* because the area might be under

control of one of the armed actors. With this portion of the main sample, I estimate again a zero-inflated negative binomial with clustered robust standard errors by municipality.

The results of the model confirm my three hypotheses (See Table 4). Municipalities with many ethnic autonomous organisations are more likely to protest all sides of the civil war. An increase in the number of autonomies enhances the expected number of protests by 2.0% when all other variables are held constant. On the other hand, the findings confirm that an increase in the number of foreign aid projects in the municipality increases the chances of mobilisation against combatants. According to the results of the estimation, a unit increase in foreign aid projects boosts the expected number of protests by 3.3% when all other variables are held constant.

Again, the rate of victims hurt by armed actors produces an inverted U shape for the probability of having a protest against any armed actor (See Figure 5). I additionally estimate a likelihood-ratio test in which I compare a model without square term of victimisation rate with the full model. The test indicates that the full model is more comprehensive.

Table 4 Zero Inflated Models of Protest against Armed Actors, 1988-2010

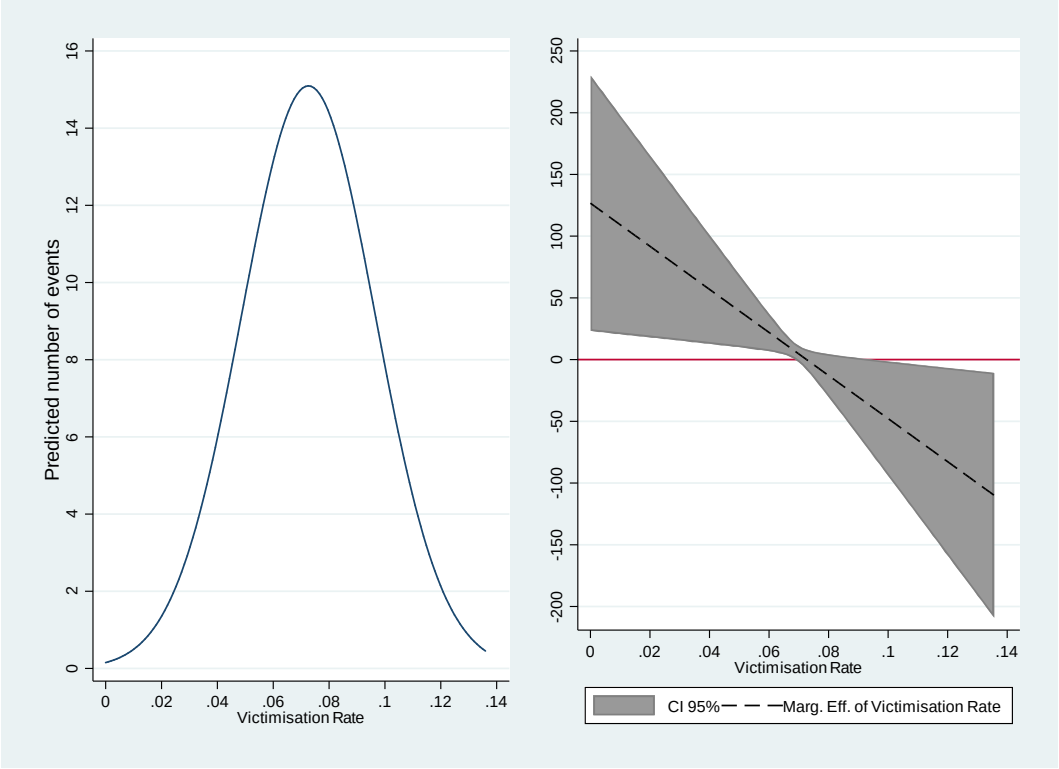
(Municipalities expose to violence)

	Model 7
Ethnic Autonomy	.020**
	(.006)
Foreign Aid	.032**
	(.013)
Victimisation Rate	126.688**
	(52.757)
Victimisation Rate^2	-872.336*
	(380.405)
Protests Not Related to the Civil War	0.031*
	(0.014)
Catholic and Christian Churches	.001
	(.002)
Population Density (ln)	.128
	(.117)
Unsatisfied Basic Needs Index	-.007
	(.006)
Capital	.354
	(.248)
Constant	-1.256*
	(.624)
Inflate	
Protests Not Related to the Civil War	-.718**
	(.115)
Catholic and Christian Churches	-.172**
	(.050)
Population Density (ln)	.158
	(.143)

Unsatisfied Basic Needs Index	-.005 (.007)
Capital	-.002 (.697)
Constant	1.221 (.770)
Log likelihood	-4184.684
N	9223
N zero	8121
N nonzero	1102

Robust standard errors clustered by municipality in parentheses; significance tests are one-tailed, *p < .05; **p < .01.

Figure 5 Effect of the Victimisation Rate on the Number of Protests against Armed Actors



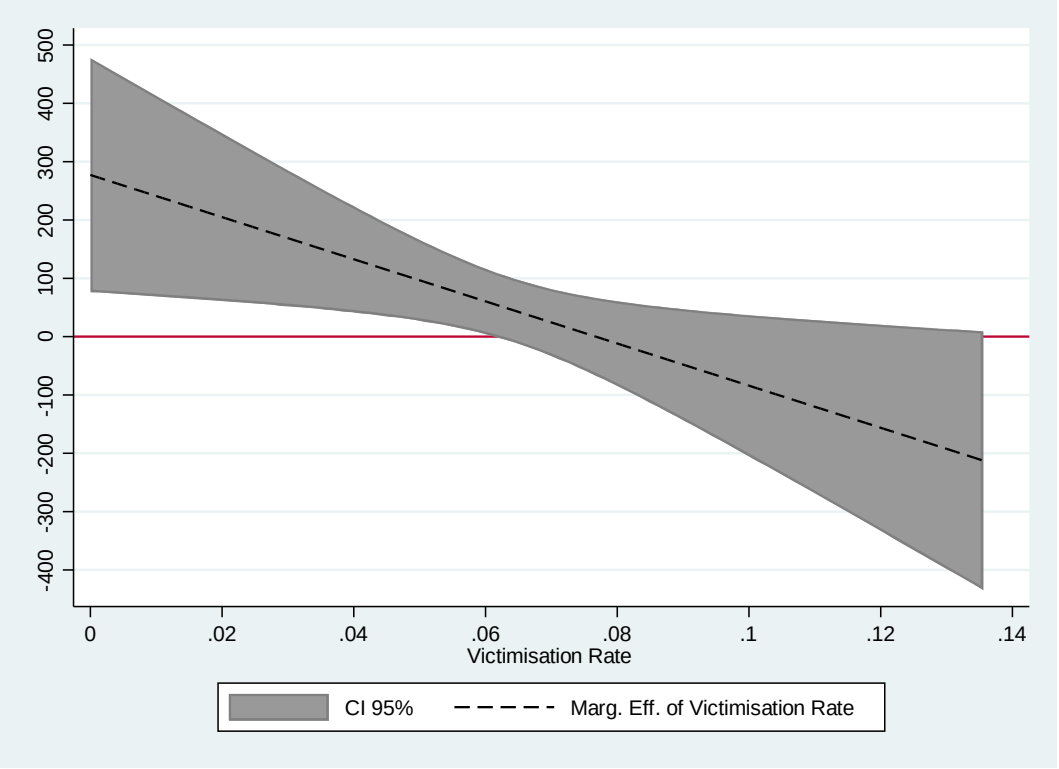
Other Non-Linear Analysis Estimations

I also estimate a set of non-linear models (Tobit, and Negative Binomial) in order to evaluate the regularity of the predictions made by the zero-inflated models. I do not estimate an ordinary least squares model because it will not provide consistent estimates since my dependent variable is a discrete variable with non-negative integer responses (Hilbe 2011). I estimate each of those models with cluster robust standard errors by municipality.

In all the models, I find support for my three hypotheses (See Table 5). The tobit model suggests municipalities with many ethnic autonomous organisations are more likely to protest all sides of the civil war. For a one unit increase in the number of ethnic autonomies, there is a .11 point increase in the predicted value of the number of protest against armed actors. On the other hand, the findings confirm that an increase in the number of foreign aid projects in the municipality increases the chances of mobilisation against combatants. According to the results of the estimation, a one unit increase in the number of foreign aid projects is associated with a .29 unit increase in the predicted value of the number of protests against armed actors.

Again, the rate of victims hurt by armed actors produces an inverted U shape for the probability of having a protest against any armed actor. The marginal effect of the victimisation decreases as long as the victimisation rate increases. However, the marginal effect gets insignificant when the victimisation rate reaches 6% of the population of the municipality (See Figure 6). For that reason, I additionally estimate a likelihood-ratio test in which I compare a model without square term of victimisation rate with the full model. The test indicates that the unrestrictive model is more comprehensive.

Figure 6 Effect of the Victimisation Rate on the Number of Protests against Armed Actors



Finally the negative binomial regression shows that an increase in the number of autonomies enhances the expected number of protests by 2.4% when all other variables are held constant. On the other hand, the findings confirm that an increase in the number of foreign aid projects in the municipality increases the chances of mobilisation against combatants. According to the results of the estimation, a unit increase in foreign aid projects boosts the expected number of protests by 11.4% when all other variables are held constant. Finally, the rate of victims hurt by armed actors produces an inverted U shape for the probability of having a protest against any armed actor (Figure 7). I additionally estimate a likelihood-ratio test in which I compare a model without square term of victimisation rate with the full model. The test indicates that the unrestrictive model is more comprehensive.

Figure 7 Effect of the Victimisation Rate on the Number of Protests against Armed Actors

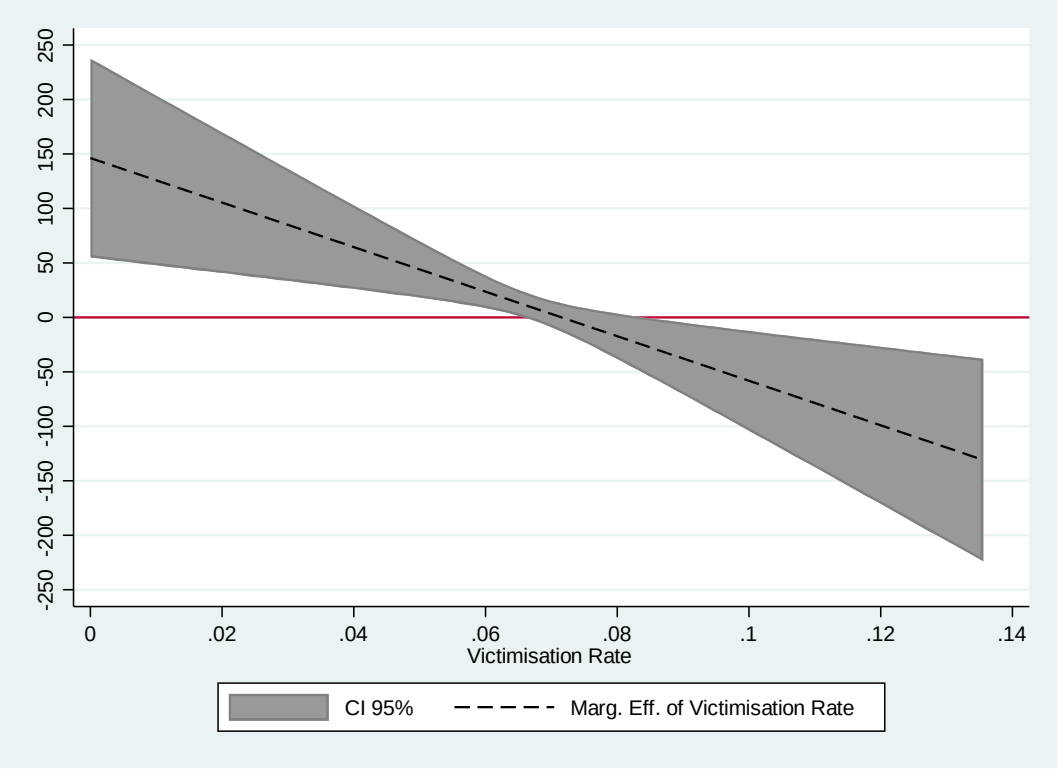


Table 5 Non-Linear Models of Protest against Armed Actors, 1988-2010

	Model 8 Tobit	Model 9 Nbreg
Ethnic Autonomy	.080** (.290)	.023* (.013)
Foreign Aid	.290** (.069)	.108** (.038)
Victimisation Rate	277.27** (102.278)	146.275** (46.494)
Victimisation Rate^2	-1806.206** (767.355)	-1022.229** (343.566)
Protests Not Related to the Civil War	.117 (.093)	.087* (.048)
Catholic and Christian Churches	.012* (.006)	.0004 (.004)
Population Density (ln)	.423 (.258)	.076 (.065)
Unsatisfied Basic Needs Index	-.002 (.006)	-.004 (.003)
Capital	3.772** (1.455)	.966** (.318)
Constant	-9.703** (3.256)	-2.527** (.278)
Log likelihood	-7341.806	-6146.350
N	14931	14931
Pseudo R^2	0.117	0.129
α		3.958

Robust standard errors clustered by municipality in parentheses; significance tests are one-tailed,
*p < .05; **p < .01.

Some Discussions about Ethnic Autonomies

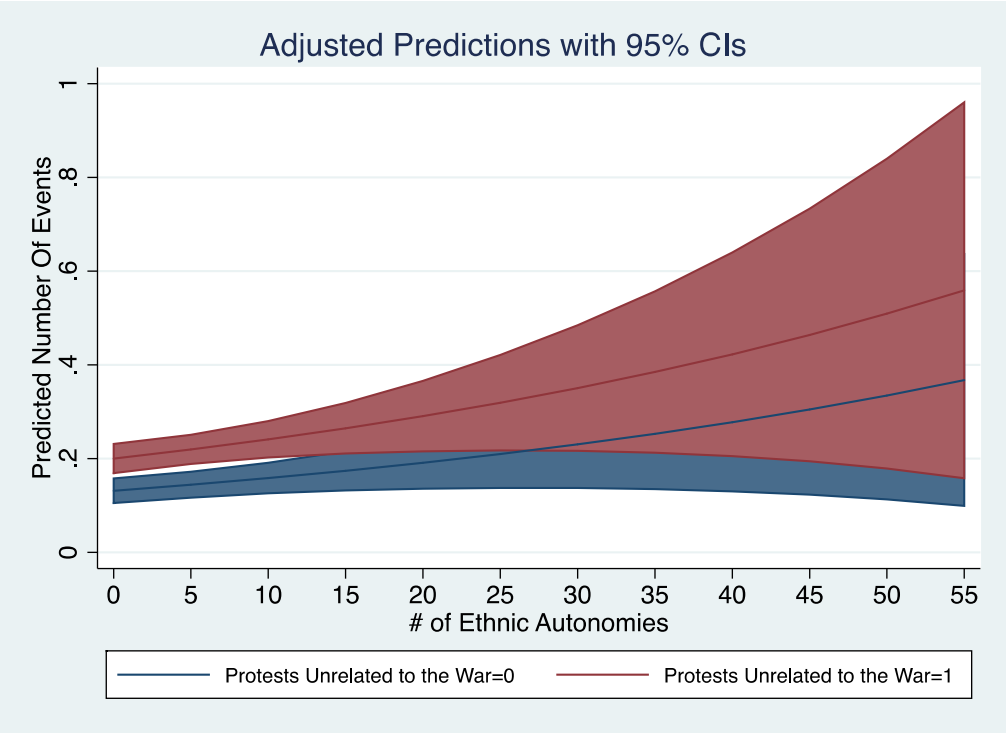
In this research, I argue each ethnic autonomy is prone to mobilise against armed actors both, because the transaction costs of mobilisation are low (and in some cases, public demonstration reinforces their identity as a community) and the exit option is too costly or non-existent. Hence, municipalities that count with several ethnic autonomies in their territory are more likely to stage protests against armed actors. However, the research should delve into a couple of issues that require further analysis.

Level of Organization of Ethnic Autonomies

One concern with respect ethnic autonomies is assuming that all tethnic autonomies have the same strength. There is a chance that few and tough ethnic autonomies are more prone to mobilise against armed actors than several and weak ethnic autonomies. I trace the strength of those organizations by using as a proxy "protests unrelated to the war". This variable attempt to assess the ease with which towns reached the minimum threshold for mobilisation. Using the estimates of Model 5 (See Table 6), I evaluate the marginal effects of ethnic autonomies on the number of protests against armed actors when there is one protest unrelated to the war in the municipality and there is not protests unrelated to the war.

The results show that in fact municipalities that are embedded with experienced and few ethnic autonomies are more prone to mobilise against armed actors than municipalities that equipped with several ethnic autonomies without mobilisation experience. However, such difference disappears when the number of ethnic autonomies located in the municipality is 14 (See Figure 8). Despite that the strength can complement the effect of ethnic autonomies in the mobilisation, the number of ethnic autonomies by itself can still explain the contention behaviour towards armed actors.

Figure 8 Predicted Number of Protests against Armed Actors according to the Number of Ethnic Autonomies and Protests Unrelated to the War



Coordination and Cooperation between Ethnic Autonomies

One topic that the paper should consider is the possibility that ethnic autonomies collaborate and coordinate their efforts in order to mobilise against armed actors. From a theoretical standpoint, an increase in the number of ethnic autonomies might boost the probability of having demonstrations against armed actors because the total costs of the mobilisation will be distribute it between the organisations involve in the protests. However, this tendency is non-linear. Up until certain threshold, an increase in the number of ethnic autonomies will make harder for those autonomies to reach an agreement about the mobilisation. As a consequence, the probability of having a protest against armed actors will decline.

I evaluate the previous idea including into the model the squared term of the ethnic autonomies. Following this strategy I expect to capture the non-linear effect of the number of ethnic autonomies in the municipality on the number of protests against armed actors (See Table 6). Despite the new estimation might address the "non-linearity" of ethnic autonomies, the inclusion of the squared term into the new model does not improve model fit. The likelihood-ratio test shows that there is no statistical difference between the model that includes the squared term of ethnic autonomies and the model without that independent variable. For the sake of simplicity, it is then better to use the restricted model.

Table 6 Zero Inflated Models of Protest against Armed Actors, 1988-2010

	Model 5	Model 10
Ethnic Autonomy	.019**	.030*
	(.007)	(.018)
Ethnic Autonomy^2		-.0002
		(.0004)
Foreign Aid	.043**	.043**
	(.018)	(.007)
Victimisation Rate	162.866**	161.070**
	(56.033)	(41.068)
Victimisation Rate^2	-1140.57**	-1126.127**
	(401.537)	(312.314)
Protests Not Related	.036*	.036**
to the Civil War	(.016)	(.006)
Catholic and	.002	.002**
Christian Churches	(.003)	(.009)
Population Density	.039	.040
(ln)	(.116)	(.039)
Unsatisfied Basic	-.008	-.008
Needs Index	(.005)	(.003)
Capital	.626*	.614**
	(.286)	(.122)
Constant	-1.100*	-1.105**
	(.553)	(.223)
Inflate		
Protests Not Related	-.787**	-.789**
to the Civil War	(.118)	(.090)
Catholic and	-.243**	-.242**
Christian Churches	(.065)	(.034)
Population Density	.004	.002
(ln)	(.146)	(.068)

Unsatisfied Basic Needs Index	-.013* (.007)	-.013* (.004)
Capital	.580 (.686)	.610 (.404)
Constant	2.217** (.719)	2.226** (.382)
Log likelihood	-5927.64	-5927.398
N	14931	14931
N zero	13391	13391
N nonzero	1540	11540

Robust standard errors clustered by municipality in parentheses; significance tests are one-tailed, *p < .05; **p < .01.

Civilians Protest Choice

One concern is that the dependent variable fuses all demonstrations without considering the target thereof. Therefore, I also tested the three hypotheses using a multivariate probit model. Protesting against an armed actor does not exclude the possibility of protesting against the other or both parties of the war. Therefore, I estimated a multivariate probit model, because it relaxes the assumption of the Independence of Irrelevant Alternatives and enables the calculation of the correlation between the choices made by non-combatants (Alvarez and Nagler 1998; Clark and Reed 2005). Here, I estimated three equations with correlated error terms in a trivariate normal distribution. Moreover, I performed a Geweke-Hajivassilou-Keane (GHK) smooth recursive conditioning simulation (Cappellari and Jenkins 2003). Cappellari and Jenkins (2003)

recommend using samples in the thousands when running the GHK simulation, using the square root of the sample. In this case, I employed 122 draws for my estimate, since the sample was almost 15,000 observations.

I employed three equations in this estimation. The first two equations evaluated the conditions under which non-combatants protest against one side—insurgents or state forces/paramilitaries—in the war. The third equation assessed the circumstances that drive civilians to mobilise as unbiased actors who demand from both armed actors better behaviour towards the community.

The first dependent variable was mobilisation against insurgents. This variable equals '1' when there are protests against insurgents in the municipality and '0' otherwise. The second dependent variable was mobilisation against state forces and/or paramilitaries. This variable equals '1' when there are protests against state forces and/or paramilitaries in the municipality and '0' otherwise. The last dependent variable was neutral mobilisation, which equals '1' when there are unbiased protests in the municipality and '0' otherwise.

Ethnic autonomies and foreign aid still explain why people protest against armed actors. Of course, protests may change according to the target, but both variables have a strong and positive relationship with protest behaviour against armed actors. Despite the positive correlation between ethnic autonomies and protests against both armed actors, the estimate does not differ from zero. Nevertheless, as the model suggests, ethnic autonomies can mobilise either against insurgents or against state forces and paramilitaires. A similar situation arises with foreign aid: foreign aid and protests against state forces and paramilitaries are positively and insignificantly correlated. Furthermore, foreign aid can foster mobilisation against insurgents or both sides of the confrontation. This situation might suggest that foreign aid might intervene in the selection of

the target of the protests. Not necessary discouraging certain type of protests, but being less enthusiastic about them. Again, the rate of victims hurt by armed actors produces an inverted U shape for the probability of a protest against any armed actor (see Table 7). Consequently, the three hypotheses postulated in this paper still explain the minimum conditions that drive civilians to overcome their collective action problem and mobilise against armed actors, despite the target of the protest.

Based on studies on the Colombian civil conflict, I assumed that paramilitaries and state forces cooperate with each other and act as a single actor to defeat rebels in Colombia (Medina Gallego 1990; Human Rights Watch 2001; Romero 2003; Acemoglu, Robinson, and Santos 2013). Nevertheless, paramilitaries and state forces sometimes diverge in how they deal with the population. Specifically, paramilitaries tend to use their positions to loot and enrich their members through the war effort by expropriating the assets of civilians (Gutierrez Sanín 2008). This difference might alter the incidences of the mechanisms explained in this paper. Therefore, I tested my three hypotheses by employing four dependent variables. The first dependent variable was mobilisation against insurgents. This variable equals '1' when there are protests against insurgents in the municipality and '0' otherwise. The second dependent variable was mobilisation against state forces. This variable equals '1' when there are protests against state forces in the municipality and '0' otherwise. The third dependent variable was mobilisation against paramilitaries. This variable equals '1' when there are protests against paramilitaries in the municipality and '0' otherwise. The last dependent variable was neutral mobilisation. This variable equals '1' when there are unbiased protests in the municipality and '0' otherwise.

Again, I estimated a four-equation multivariate probit with correlated error terms in a four-variate normal distribution. Moreover, I performed the Geweke- Hajivassilou-Keane (GHK)

smooth recursive conditioning simulation (Cappellari and Jenkins 2003). Cappellari and Jenkins (2003) recommend using samples totalling thousands when running the GHK simulation, using the square root of the sample. In this case, I performed 122 draws for my estimate, since my sample was almost 15,000 observations.

Again, ethnic autonomies and foreign aid explain why people protest against armed actors. Of course, the probability exists of having a protest change according to the target, but both variables demonstrate a strong and positive relationship with protest behaviour against armed actors. In the former case, ethnic autonomy demonstrated a positive and insignificant relationship with neutral mobilisation. In the latter, foreign aid effectively predicted mobilisation against all combatants except state forces. This situation might suggest that foreign aid might intervene in the selection of the target of the protests. Not necessary discouraging certain type of protests, but being less enthusiastic about them. Again, the rate of victims hurt by armed actors produces an inverted U shape for the probability of having a protest against any armed actor (see Table 8). Consequently, the three hypotheses postulated in this paper are necessary and sufficient conditions that drive civilians to overcome their collective action problem and mobilise against armed actors, despite the target of the protest.

Table 7 Civilians Protest Choice: Multivariate Probit Estimates

Variables	Model 7	
	β	Std. Error
Mobilization agst. insurgents		
Ethnic Autonomies	.017**	(.006)
Foreign Aid	.052**	(.008)
Victimisation Rate	148.610**	(47.123)
Victimisation Rate^2	-8984.029*	(5019.692)
Protests Unrelated to the War	.012	(.010)
Catholic and Christian Churches	.001	(.001)
Population Density (ln)	.061*	(.027)
Unsatisfied Basic Needs Index	-.00003	(.106)
Regional Capitals	.810**	(.106)
$\propto_1$	-2.465**	(.108)
Mobilization agst. State Forces and Paramilitaries		
Ethnic Autonomies	.019**	(.004)
Foreign Aid	.015	(.010)
Victimisation Rate	220.554**	(56.370)
Victimisation Rate^2	-16394*	(9858.535)
Protests Unrelated to the War	.070**	(.019)
Catholic and Christian Churches	-.0008	(.002)
Population Density (ln)	.041	(.029)

Unsatisfied Basic Needs Index	.003*	(.001)
Regional Capitals	.424**	(.131)
$\propto_2$	-2.321**	(.144)
Neutral Mobilization		
Ethnic Autonomies	.007	(.006)
Foreign Aid	.075**	(.014)
Victimisation Rate	34.898*	(15.343)
Victimisation Rate^2	-125.869	(139.801)
Protests Unrelated to the War	.055**	(.020)
Catholic and Christian Churches	-.00001	(.002)
Population Density (ln)	.043*	(.020)
Unsatisfied Basic Needs Index	-.003*	(.001)
Regional Capitals	.525**	(.113)
$\propto_1$	-1.852**	(.113)
Log-Likelihood	-6420.0368	
$\rho_{1,2}$	.244**	(.048)
$\rho_{1,3}$	.265**	(.039)
$\rho_{2,3}$	.202**	(.040)
$LR{\sim}x^2\rho_{1,2} = \rho_{1,2} = \rho_{2,3} = 0$	119.401**	
N	14934	
$Wald{\sim}x^2$	2114.16**	

Robust standard errors clustered by municipality in parentheses; significance tests are one-tailed, *p < .05; **p < .01.

Table 8 Civilians Protest Choice (Paramilitaries and State Forces tested individually): Multivariate Probit Estimates

Variables	Model 8	
	β	Std. Error
Mobilization agst. insurgents		
Ethnic Autonomies	.017**	(.006)
Foreign Aid	.053**	(.009)
Victimisation Rate	149.679**	(47.332)
Victimisation Rate^2	-9117.701*	(5139.145)
Protests Unrelated to the War	.013	(.009)
Catholic and Christian Churches	.001	(.001)
Population Density (ln)	.060*	(.027)
Unsatisfied Basic Needs Index	-.00004	(.001)
Regional Capitals	.813**	(.106)
$\propto_1$	-2.461**	(.139)
Mobilization agst. Paramilitaries		
Ethnic Autonomies	.013*	(.006)
Foreign Aid	.028**	(.007)
Victimisation Rate	194.402**	(67.234)
Victimisation Rate^2	-17548.23*	(9854.591)
Protests Unrelated to the War	.035**	(.015)
Catholic and Christian Churches	-.0008	(.001)
Population Density (ln)	.070*	(.037)

Unsatisfied Basic Needs Index	.004*	(.002)
Regional Capitals	.443**	(.153)
$\propto_2$	-2.715**	(.199)
Mobilization agst. State Forces		
Ethnic Autonomies	.018**	(.004)
Foreign Aid	.010	(.008)
Victimisation Rate	221.785**	(64.269)
Victimisation Rate^2	-16040.29	(11752.77)
Protests Unrelated to the War	.043**	(.011)
Catholic and Christian Churches	.0007	(.001)
Population Density (ln)	.029	(.028)
Unsatisfied Basic Needs Index	.002	(.001)
Regional Capitals	.480**	(.122)
$\propto_3$	-2.473**	(.142)
Neutral Mobilization		
Ethnic Autonomies	.007	(.006)
Foreign Aid	.075**	(.014)
Victimisation Rate	35.057*	(15.356)
Victimisation Rate^2	-127.261	(139.873)
Protests Unrelated to the War	.052**	(.018)
Catholic and Christian Churches	.00002	(.002)
Population Density (ln)	.044**	(.020)
Unsatisfied Basic Needs Index	-.003*	(.001)

Regional Capitals	.536**	(.111)
$\propto_4$	-1.857**	(.113)
Log-Likelihood	-6932.1206	
$\rho_{1,2}$	.263**	(.058)
$\rho_{1,3}$	.186**	(.042)
$\rho_{1,4}$	.267**	(.039)
$\rho_{2,3}$	.354**	(.051)
$\rho_{2,4}$	.215**	(.049)
$\rho_{3,4}$	.168**	(.041)
$LR{\sim}x^2\rho_{1,2} = \rho_{1,3} = \rho_{1,4} = \rho_{2,3} = \rho_{2,4} = \rho_{3,4} = 0$	185.374**	
N	14947	
$Wald{\sim}x^2$	2108.74**	

Robust standard errors clustered by municipality in parentheses; significance tests are one-tailed, *p < .05; **p < .01.

Civilians' Alternatives: Protest or Migration

I tested the impact of the main independent variables that predict protest behaviour against armed actors given the possible alternative of migration. In this case, I estimated a set of multivariate probit models that demonstrate the correlation among the errors of two or more seemingly unrelated equations (Davidson and McKinnon 2004). In this case, I estimated three equations with correlated error terms in a trivariate normal distribution. Moreover, I performed the Geweke-Hajivassilou-Keane (GHK) smooth recursive conditioning simulation (Cappellari and

Jenkins 2003). Cappellari and Jenkins (2003) recommend using samples totalling thousands when running the GHK simulation, using the square root of the sample. In this case, I performed 81 draws for my estimate, since my sample comprised almost 7,000 observations. I input three equations into the models. The first equation evaluated the conditions under which civilians protest against armed actors, the second tested the circumstances under which citizens forcibly emigrate, and the third assessed the factors that explain the arrival of internal displaced people in municipalities in Colombia. I include in the estimation both immigration and emigration in order to address how some independent variables influence both processes in the same direction (Engel and Ibañez 2007; Dueñas et. al. 2014).

The first dependent variable was mobilisation against armed actors. This variable equals '1' when there are protests against any armed group in the municipality and '0' otherwise. The second variable was forced emigration. This variable equals '1' when a proportion of the population of the town must abandon the zone because of military confrontation. The third variable was forced immigration. This variable equals '1' when a proportion of the host population arrives in the municipality because of military confrontation. I estimated three systems of equations. In each model, I set different thresholds to create the dependent variable for the emigration and immigration of Internally Displaced People (IDPs). In the first estimation, emigration and immigration are '1' when at least .5% of the population leaves or arrives in their towns respectively and '0' otherwise. In the second model, emigration and immigration are '1' when at least 1% of the population leaves or arrives in their towns respectively and '0' otherwise. In the third model, emigration and immigration are '1' when at least 2% of the population leaves or arrives in their towns respectively and '0' otherwise. I used data on the emigration and immigration of IDPs from the Presidential Agency for Social Action. In the

equations for the emigration and immigration of IDPs, I included as control variables the square kilometres of roads in the town (ln) measured in 2006 as extracted from the National Institute of Roads; rate of Unsatisfied Basic Needs in 2005 from DANE; number of seats of left parties on the local council from the National Civil Registry; population projection of the town (ln) from DANE; and the existence of gems, oil, coca crops, and palm oil in the municipality. In the IDP emigration equation, I accounted for the rate of emigration of the town the previous year ($\frac{number\ of\ emigrating\ people}{total\ population\ of\ the\ expulsion\ town}$), and in the IDP immigration equation the rate of immigration of the town the previous year ($\frac{number\ of\ immigrating\ people}{total\ population\ of\ the\ hosting\ town}$).

The three hypotheses postulated in this paper still explain protest behaviour against armed actors. However, interesting results emerged regarding forced migration processes in a civil war that require further analysis in the future (see Table 9). Ethnic autonomies are positively associated with immigration and emigration processes in Colombia. Some studies emphasised that ethnic autonomies in Colombia form a network that shares information with and supports fellow ethnic groups. When armed actors take violent actions against the population, ethnic autonomies warn ethnic communities in the neighbourhood to prepare for the arrival of the armed actor. Ethnic autonomies then pre-emptively migrate to other places as a mechanism to defend against possible attacks on their members. They temporarily abandon their territories, leaving for places where they will be supported by other ethnic organisations. Eventually, they return to their territories (Oslender 2008, Castillo Valencia 2009). Thus, for ethnic autonomies, mobilisation and migration are complementary strategies to increase their probability of survival. On the other hand, foreign aid cannot predict migration processes in Colombia. Despite the fact that NGOs distribute foreign aid resources to the community, stronger factors shape the preferences of civilians for migration, such as violence. Finally, an escalating level of violence

increases the probability of internally displaced people. However, when the rate of victims totals 2% of the population, the probability of having an additional emigrating person decreases, probably because the most cost-sensitive citizens have already left. In contrast, when the level of violence escalates, the probability of having a protest against armed actors also increases until the percentage of victims totals 3% of the population, after which the probability of protesting against armed actors declines. These results suggest that the first set of people who abandon the town are less committed to the community, while for those who remain in the territory, mobilisation is an effective mechanism by which to improve the security of the town. This preliminary evaluation indicates that it is necessary to contemplate the conditions under which emigration and resistance are complementary choices for civilians, rather than substitutes. Therefore, future research should explore the interaction between resistance and emigration.

Table 9 Multivariate Probit Models: Protest against Armed Actors, IDPs Emigration and IDPs Immigration 1998-2010

	Model. 9 Migrations Threshold at .5%of the local population		Model. 10 Migrations Threshold at 1%of the local population		Model. 11 Migrations Threshold at 2%of the local population	
Variables	β	Std. Error	β	Std. Error	β	Std. Error
Mobilization agst. Armed Actors						
Ethnic Autonomies	.023**	.006	.023**	.006	.023**	.006
Foreign Aid	.064**	.021	.066**	.021	.070**	.021
Victimisation Rate	166.897**	30.060	165.381**	29.684	160.701**	29.803
Victimisation Rate^2	-3029.438**	627.890	-2966.955**	611.881	-2897.835**	617.546
Protests Unrelated to the War	.065**	.023	.064**	.022	.060**	.022
Catholic and Christian Churches	.006	.006	.007	.007	.008	.008
Population Density (ln)	.063*	.030	.060*	.030	.050*	.030

Unsatisfied Basic Needs Index	-.006**	.002	-.006**	.001	-.006*	.002
Regional Capitals	.654**	.206	.586**	.212	.611**	.224
$\propto_1$	-1.603	.164	-1.595**	.164	-1.557**	.163
IDPs Emigration						
Ethnic Autonomies	.020*	.009	.021**	.008	.022**	.009
Foreign Aid	-.004	.009	-.007	.011	-.005	.013
Victimisation Rate	150.961*	65.784	196.043**	48.028	164.861**	38.375
Victimisation Rate^2	-3048.069**	1131.106	-3618.538**	868.734	-255.575**	731.364
Rate of Emigration t1	73.983**	16.910	23.003*	10.995	17.919**	5.811
Paved Roads-Km2 (ln)	.129**	.045	.194**	.049	.173**	.060
Presence of Left Parties	.016	.028	-.003	.028	-.019	.029
Unsatisfied Basic Needs Index	.014**	.001	.015**	.002	.013**	.001
Population (ln)	-.135**	.032	-.170**	.036	-.137**	.039
Gems	.186*	.102	.070	.131	.021	.144

Oil	.008	.086	-.098	.090	-.211*	.101
Oil Palm	.309*	.132	.332**	.123	.320*	.158
Coca Crops (ln)	.028**	.006	.036**	.005	.027**	.005
$\propto_2$	-1.160*	.457	-.1.670	.509	-2.277*	.590
IDPs Immigration						
Ethnic Autonomies	.002	.008	.008	.008	.016**	.006
Foreign Aid	.003	.007	-.001	.007	.003	.007
Victimisation Rate	151.473**	36.690	83.926*	38.790	9.157	41.770
Victimisation Rate^2	-1870.004**	644.691	-1260.438	788.079	-281.254	808.403
Rate of Immigration t1	16.427**	5.390	13.836**	3.585	12.249**	2.628
Paved Roads (ln)	.007	.049	.015	.057	.048	.069
Presence of Left Parties	-.009	.026	-.040	.028	-.010	.028
Unmet Basic Needs Index	.007**	.001	.011**	.002	.011**	.002
Population (ln)	.261**	.039	.234**	.044	.146**	.051
Gems	-.138	.125	.011	.147	-.074	.117

Oil	-.0.23	.095	-.164	.114	-.274*	.117
Oil Palm	.413**	.122	.310*	.135	.059	.147
Coca Crops (ln)	.018**	.005	.018**	.006	.017**	.006
$\propto_3$	-3.703	.520	-4.138	.460	-3.965	.645
Log-Likelihood	-7470.8632		-6208.5725		-4610.1997	
$\rho_{1,2}$	.265**	.031	.247**	.0.34	.266**	.037
$\rho_{1,3}$	.213**	.031	.259**	.039	.262**	.042
$\rho_{2,3}$	.562**	.032	.690**	.029	.778**	.027
$LR{\sim}x^2 \rho_{1,2} = \rho_{1,2}$						
$= \rho_{2,3}$	145.781**		98.836**		315.716**	
$= 0$						
N	6521		6521		6521	
$Wald{\sim}x^2$	745.57**		727.77**		705.47**	

Robust standard errors clustered by municipality; significance tests are one-tailed, *p < .05; **p < .01.

Discussions about Foreign Aid

Mediation Effect of Protests Unrelated to the war on Protest Behavior through Foreign Aid

For some scholars, foreign aid is not randomly assigned. International Cooperation agencies might prefer to assign their resources to strong grass-root organizations. In this case, the level of organization of the communities on a protest against armed actors might be mediated by foreign aid. In this sense, the impact of foreign aid on protest behaviour might be in fact product of the level of organization located in the municipalities. Therefore, I estimated a causal mediation model and tested if this model violated the sequential ignorability assumption by employing a sensitivity analysis (Imai, Keele, Tingley, and Yamamoto 2011).[3] Following this strategy, I could more precisely evaluate the underlying causal mechanisms between level of organization of the communities, foreign aid, and protests against armed actors.

I input two equations to estimate the model. The first equation evaluated the effect of the treatment variable—Protests Unrelated to the War—on the mediator, namely Foreign Aid. I again use Protests Unrelated to the War as a proxy of the level of organization of the municipality because this measure is able to assess the ease with which towns reached the minimum threshold for mobilisation. I logged Foreign Aid to estimate an OLS model in the first equation. I included as control variables the number of Christian and Catholic Churches in the municipality; population density of the municipality (ln) from DANE; the area of the municipality (ln); the presence of gems and oil in the municipality; the coca hectares (ln); square kilometres of roads in the town measured in 2006 based on the National Institute of Roads; rate of Unsatisfied Basic Needs in 2005 from DANE; the lag of the dependent variable; and a dummy that has a value of 1 if the municipality is a departmental capital, and 0 otherwise.

[3] I ran the sensitivity analysis through 1,000 simulations.

The second equation evaluated the effect of the treatment—Foreign Aid (ln)—on the outcome, namely mobilisation against armed actors. Mobilisation against armed actors equals '1' when there are protests against any armed group in the municipality and '0' otherwise. I used the same independent variables as in the previous models, and estimated this equation using a probit model.

The results of the estimation show that the variable protests unrelated to the war directly and indirectly affects the probability of a protest in the municipality. The number of protests unrelated to the war impacts protest behaviour against armed actors through foreign aid. However, this impact only accounts for 1% of the total effect of protests unrelated to the war on mobilisation against armed actors (see Table 10). Therefore, majority of the effect of protest unrelated to the war comes from its direct effect. On the other hand, most of the effect of foreign aid on protest behaviour stems from the direct effects explained in this paper. Additionaly, I estimate a sensitivity analysis in which I could evaluate if the analysis breaks the sequential ignorability assumption. The results show that despite there is a chance that the number of protests unrelated to the war might have a positive effect on the probability of having a protest against armed actors through foreign aid (See Table 11), such impact could be negative (See Figure 9). But, even if the mediated effect is negative, it does not represent most of the impact of foreign over protest behaviour.

Table 10 Causal Mediation Model (OLS and Probit): Foreign Aid and Protest against Armed Actors, 1998-2010

	Model 13	
	β	Std. Error
Mobilization agst. Armed Actors		
Ethnic Autonomies	.025**	.006
Foreign Aid (ln)	.036**	.004
Victimisation Rate	141.083**	26.963
Victimisation Rate^2	-2594.341**	587.168
Protests Unrelated to the War	.087**	.021
Catholic and Christian Churches	-.0002	.004
Population Density (ln)	.0003	.027
Unmet Basic Needs Index (2005)	-.002	.001
Capital	.966**	.146
$\propto_1$	-1.212**	.142
Log-Likelihood	-3016.313	
x^2	485.46**	
N	10426	
Foreign Aid (ln)		

Protests Unrelated to the War	.037*	.019
Catholic and Christian Churches	-.005*	.003
Population Density (ln)	.405**	.041
Area (ln)	.328**	.043
Oil	-.270**	.103
Coca Crops (ln)	.027**	.007
Gems	.157	.122
Paved Roads (ln)	-.051	.046
Capital	-.218	.160
Unmet Basic Needs Index (2005)	.006**	.002
Foreign Aid (ln) t-1	.815**	.005
$\propto_2$	-3.727**	.514
R^2	.699	
N	10426	

Robust standard errors clustered by municipality; significance tests are one-tailed, *p < .05; **p < .01.

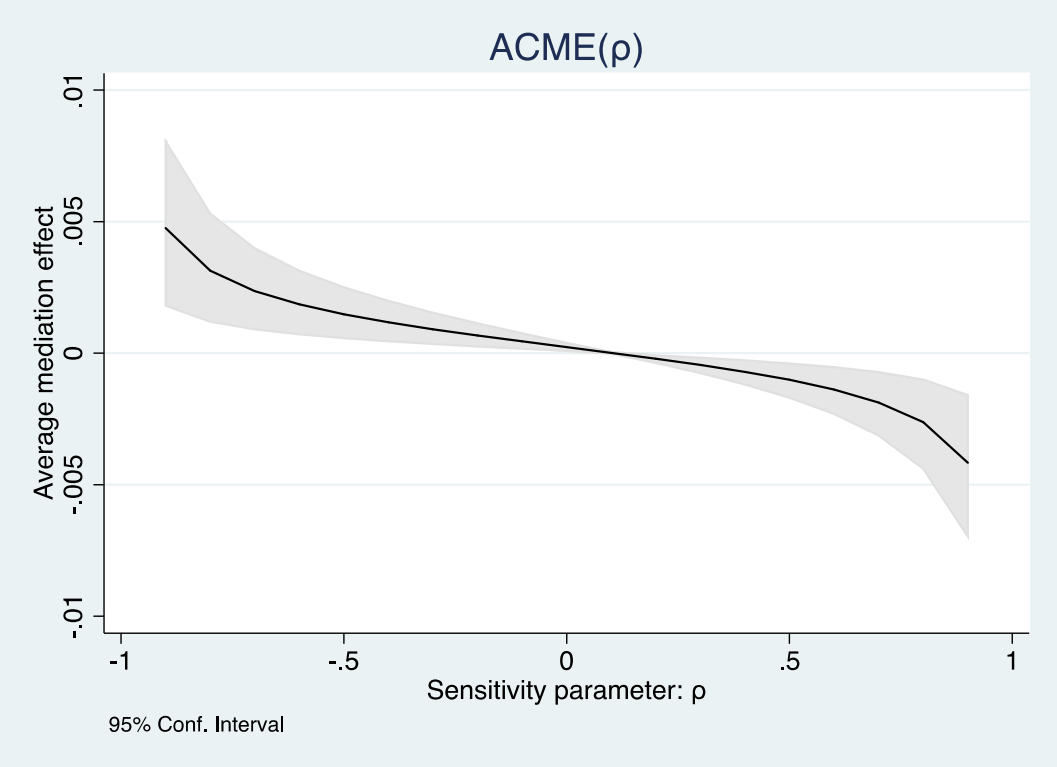
Table 11 Causal Mediation Model (OLS and Probit) with Sensitivity Analysis: Foreign Aid and Protest against Armed Actors, 1998-2010

	Model 13	
	β	Std. Error
Mobilization agst. Armed Actors		
Ethnic Autonomies	.025**	.005
Foreign Aid (ln)	.036**	.003
Victimisation Rate	141.083**	27.291
Victimisation Rate^2	-2594.341**	705.56
Protests Unrelated to the War	.087**	.010
Catholic and Christian Churches	-.0002	.001
Population Density (ln)	.0003	.018
Unmet Basic Needs Index (2005)	-.002*	.001
Capital	.966**	.087
$\propto_1$	-1.212**	.101
Log-Likelihood	-3016.313	
x^2	1164.18**	
N	10426	
Foreign Aid (ln)		
Protests Unrelated to the War	.038**	.012

Catholic and Christian Churches	-.005**	.002
Population Density (ln)	.405**	.045
Area (ln)	.328**	.048
Oil	-.270**	.104
Coca Crops (ln)	.027**	.008
Gems	.157	.136
Paved Roads (ln)	-.051	.053
Capital	-.218	.214
Unmet Basic Needs Index (2005)	.006**	.002
Foreign Aid (ln) t-1	.815**	.006
$\propto_2$	-3.727**	.564
R^2	.699	
N	10426	

Significance tests are one-tailed, *p < .05; **p < .01.

Figure 9 Sensitivity analysis for Foreign Aid (ln)/Mobilization agst. Armed Actors, 1998-2010



Mediation Effect of Foreign Aid on Protest Behaviour through Victimisation Rate

Previous studies highlighted the positive effect on the level of conflict behaviour. In this case, the effect of foreign aid on a protest against armed actors might also be mediated by the victimisation rate. Since foreign aid might escalate violence in municipalities, foreign aid could indirectly impact mobilisation given its effect on the level of violence. Therefore, I estimated a causal mediation model and tested if this model violated the sequential ignorability assumption by employing a sensitivity analysis (Imai, Keele, Tingley, and Yamamoto 2011).[4] Following this strategy, I more precisely evaluated the underlying causal mechanisms between foreign aid and protests against armed actors.

[4] I ran the sensitivity analysis through 1,000 simulations.

I input two equations to estimate the model. The first equation evaluated the effect of the treatment variable—foreign aid—on the mediator, namely the victimisation rate. I included as control variables the presence of violence during *La Violencia*; number of left parties on the local council; square kilometres of roads in the town measured in 2006 based on the National Institute of Roads; rate of Unsatisfied Basic Needs in 2005 from DANE; number of seats of left parties on the local council based on the National Civil Registry; population projection of the town (ln) from DANE; and the existence of gems, oil, coca crops, and palm oil in the municipality. I estimated this equation by employing an OLS model. The second equation evaluated the effect of the treatment—foreign aid—on the outcome, namely mobilisation against armed actors. Mobilisation against armed actors equals '1' when there are protests against any armed group in the municipality and '0' otherwise. I used the same independent variables as in the previous models, and estimated this equation using a probit model.

The results of the estimation show that foreign aid has both a direct and indirect effect on the probability of having a protest in the municipality. The allocation of foreign aid in the municipality impacts protest behaviour through the victimisation rate. However, this impact only accounts for 2% of the total effect of foreign aid on mobilisation against armed actors (see Table 12). Therefore, most of the effect of foreign aid on protest behaviour stems from the direct effects explained in this paper. On the other hand, the sensitivity analysis revealed that the results of the causal mediation model did not break the sequential ignorability assumption (see Table 13 and Figure 4).

Table 12 Causal Mediation Model (OLS and Probit): Victimisation Rate and Protest against Armed Actors, 1998-2010

	Model 12	
	β	Std. Error
Protest Agst. Armed Actors (ln)		
Ethnic Autonomies	.027**	.010
Foreign Aid	.057**	.023
Victimisation Rate	148.673**	33.561
Victimisation Rate^2	-2590.903**	700.869
Protests Unrelated to the War	.068**	.025
Catholic and Christian Churches	.011	.011
Population Density (ln)	.043	.041
Unmet Basic Needs Index	-.005*	.002
Capital	.696*	.314
$\propto_1$	-1.539**	.211
Victimisation Rate		
Foreign Aid	.00001*	5.38e-06
La Violencia	.00003	.00004
Presence of Left Parties	.00001	.00002
Oil	.0001	.0001
Coca Crops (ln)	.0002**	.00004

Gems	-.00002	.0001
Paved Roads	-2.77e-07	5.64e-07
Altitude	-3.10e-08	2.41e-08
Unmet Basic Needs Index (2005)	2.17e-06	1.42e-06
Oil Palm	-.00004	.0001
Population(ln)	-.00004*	.00002
$\propto_2$	.0008**	.0002
Log-Likelihood	-1582.3172	
N	5278	

Robust standard errors clustered by municipality; significance tests are one-tailed, *p < .05; **p < .01.

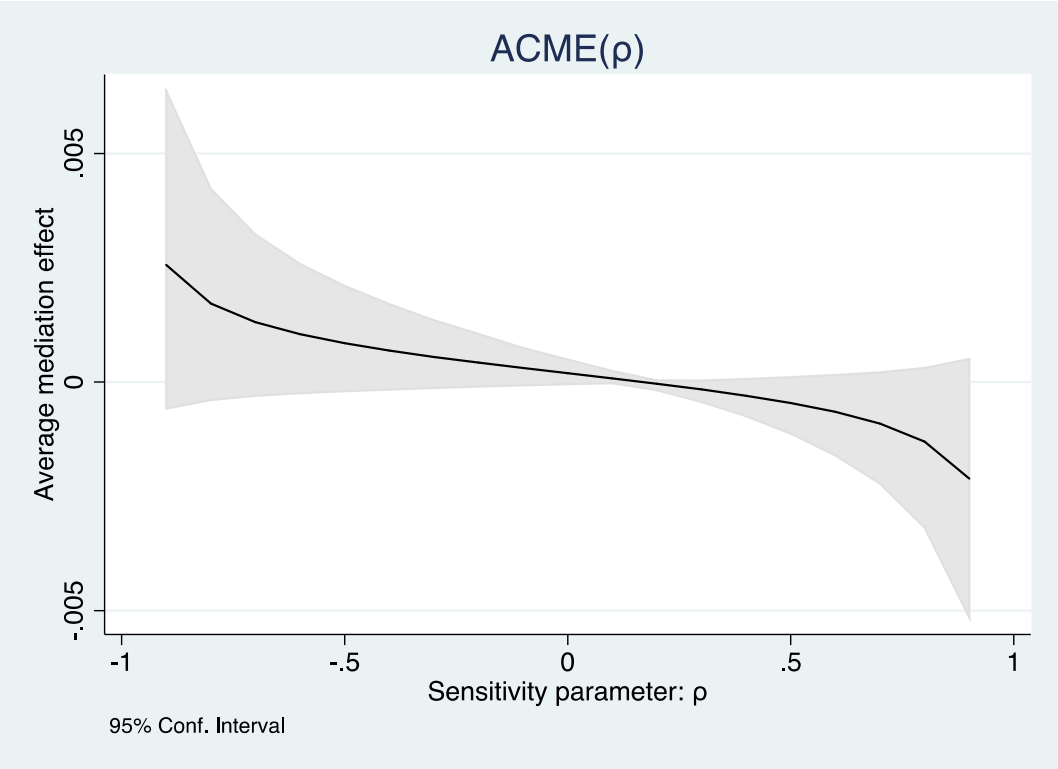
Table 13 Causal Mediation Model (OLS and Probit) with Sensitivity Analysis: Victimisation Rate and Protest against Armed Actors, 1998-2010

	Model 13	
	β	Std. Error
Mobilization agst. Armed Actors		
Ethnic Autonomies	.027**	.007
Foreign Aid	.057**	.006
Victimisation Rate	148.678**	34.976
Victimisation Rate^2	-2590.903**	840.516
Protests Unrelated to the War	.068**	.014
Catholic and Christian Churches	.011*	.005
Population Density (ln)	.043	.027
Unmet Basic Needs Index (2005)	-.005**	.001
Capital	.696**	.151
$\propto_1$	-1.539**	.140
Log-Likelihood	-1582.3172	
x^2	655.07**	
N	5278	
Victimisation Rate		
Foreign Aid	.00001	6.87e-06

La Violencia	.00003	.00004
Presence of Left Parties	.00002	.00002
Oil	.0001	.0001
Coca Crops (ln)	.0002**	4.20e-06
Gems	-.00002	.0001
Paved Roads	-2.77e-07	6.35e-07
Altitude	-3.10e-08	2.68e-08
Unmet Basic Needs Index (2005)	2.17e-06*	1.17e-06
Oil Palm	-.00004	.0001
Population(ln)	-.00005*	.00002
$\propto_2$	.0008**	.0003
R^2	.01	
N	5278	

Significance tests are one-tailed, *p < .05; **p < .01.

Figure 10 Sensitivity analysis for Victimisation Rate/Mobilization agst. Armed Actors, 1998-2010



Mediation Effect of Victimisation Rate on Protest Behaviour through Foreign Aid

For some scholars, violence might influence the arrival of foreign aid. The levels of violence might induce the arrival of more foreign aid, and as a consequence, the arrival of more foreign aid might trigger protest against armed actors. Therefore, I estimated a causal mediation model and tested if this model violated the sequential ignorability assumption by employing a sensitivity analysis (Imai, Keele, Tingley, and Yamamoto 2011).[5] Following this strategy, I

[5] I ran the sensitivity analysis through 1,000 simulations.

could more precisely evaluate the underlying causal mechanisms between violence, foreign aid, and protests against armed actors.

I input two equations to estimate the model. The first equation evaluated the effect of the treatment variable—Victimisation Rate—on the mediator, namely Foreign Aid. I logged Foreign Aid to estimate an OLS model in the first equation. I included as control variables the number of Protests Unrelated to the War; the number of Christian and Catholic Churches in the municipality; population density of the municipality (ln) from DANE; the area of the municipality (ln); the presence of gems and oil in the municipality; the coca hectares (ln); square kilometres of roads in the town measured in 2006 based on the National Institute of Roads; rate of Unsatisfied Basic Needs in 2005 from DANE; the lag of the dependent variable; and a dummy that has a value of 1 if the municipality is a departmental capital, and 0 otherwise. The second equation evaluated the effect of the treatment—Foreign Aid (ln)—on the outcome, namely mobilisation against armed actors. Mobilisation against armed actors equals '1' when there are protests against any armed group in the municipality and '0' otherwise. I used the same independent variables as in the previous models, and estimated this equation using a probit model.

The results of the estimation show that the variable Victimisation Rate has no statistical effect on the number of foreign aid projects implemented in the municipality (See Table 14 and 15). It is not possible then to affirm that violence has a mediated effect on the number of protests against armed actor through foreign aid. The effect of Victimisation Rate comes from its direct effect.

Table 14 Causal Mediation Model (OLS and Probit): Foreign Aid and Protest against Armed Actors, 1998-2010

	Model 14	
	β	Std. Error
Mobilization agst. Armed Actors		
Ethnic Autonomies	.025**	.006
Foreign Aid (ln)	.036**	.004
Victimisation Rate	141.083**	26.963
Victimisation Rate^2	-2594.341**	587.168
Protests Unrelated to the War	.087**	.021
Catholic and Christian Churches	-.0002	.004
Population Density (ln)	.0003	.027
Unmet Basic Needs Index (2005)	-.002	.001
Capital	.966**	.146
$\propto_1$	-1.212**	.142
Log-Likelihood	-3016.313	
x^2	485.46**	
N	10426	
Foreign Aid (ln)		
Victimisation Rate	.514	14.576
Protests Unrelated to the War	.037*	.019

Catholic and Christian Churches	-.005*	.003
Population Density (ln)	.405**	.041
Area (ln)	.328**	.043
Oil	-.270**	.103
Coca Crops (ln)	.027**	.007
Gems	.157	.122
Paved Roads (ln)	-.051	.046
Capital	-.218	.160
Unmet Basic Needs Index (2005)	.006**	.002
Foreign Aid (ln) t-1	.815**	.005
$\propto_2$	-3.727**	.514
R^2	.670	
N	10426	

Robust standard errors clustered by municipality; significance tests are one-tailed, *p < .05; **p < .01.

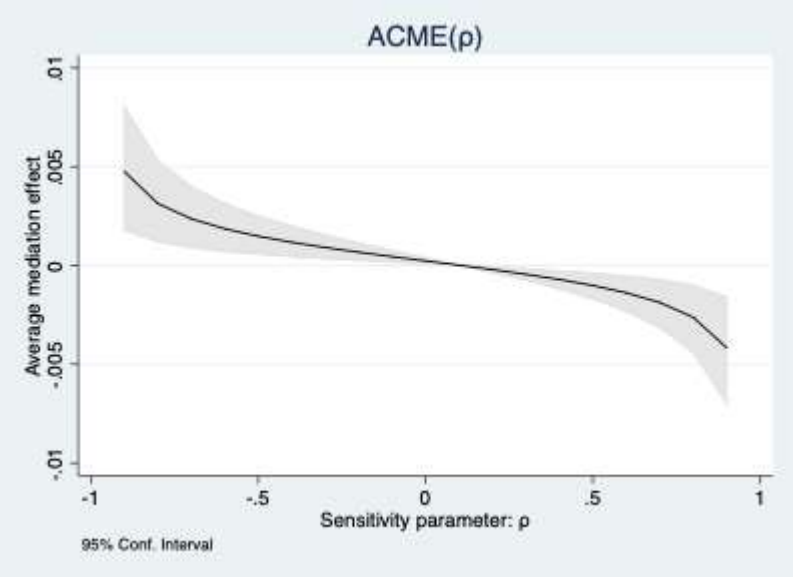
Table 15 Causal Mediation Model (OLS and Probit) with Sensitivity Analysis: Foreign Aid and Protest against Armed Actors, 1998-2010

	Model 15	
	β	Std. Error
Mobilization agst. Armed Actors		
Ethnic Autonomies	.025**	.005
Foreign Aid (ln)	.036**	.003
Victimisation Rate	141.083**	27.291
Victimisation Rate^2	-2594.341**	705.56
Protests Unrelated to the War	.087**	.010
Catholic and Christian Churches	-.0002	.001
Population Density (ln)	.0003	.018
Unmet Basic Needs Index (2005)	-.002*	.001
Capital	.966**	.087
$\propto_1$	-1.212**	.101
Log-Likelihood	-3016.313	
x^2	1164.18**	
N	10426	
Foreign Aid (ln)		
Victimisation Rate	.513	27.476

Protests Unrelated to the War	.038**	.012
Catholic and Christian Churches	-.005**	.002
Population Density (ln)	.405**	.045
Area (ln)	.328**	.048
Oil	-.270**	.104
Coca Crops (ln)	.027**	.008
Gems	.157	.136
Paved Roads (ln)	-.051	.053
Capital	-.218	.214
Unmet Basic Needs Index (2005)	.006**	.002
Foreign Aid (ln) t-1	.815**	.006
$\propto_2$	-3.727**	.565
R^2	.670	
N	10426	

Significance tests are one-tailed, *p < .05; **p < .01.

Figure 11 Sensitivity analysis for Foreign Aid (ln)/Mobilization agst. Armed Actors, 1998-2010



References

Acemoglu, Daron, James A Robinson, and Rafael J Santos.

2013 "The monopoly of violence: Evidence from Colombia." *Journal of the European Economic Association* 11: 5-44.

Alvarez, R Michael, and Jonathan Nagler.

1998 "When politics and models collide: Estimating models of multiparty elections." *American Journal of Political Science* 42(1): 55-96.

Archila N, Mauricio, Álvaro Delgado G, Martha Cecilia García V, and Esmeralda Prada M.

2002 *25 años de luchas sociales en Colombia 1975-2000.* Bogotá: CINEP, 2002.

Archila Neira, Mauricio.

2003 *Idas y Venidas, Vueltas y Revueltas: Protestas Sociales En Colombia 1958-1990.* Bogotá: ICANH, CINEP, 2003.

Cappellari, Lorenzo, and Stephen Jenkins.

2003 "Multivariate probit regression using simulated maximum likelihood." *The Stata Journal* 3(3): 278-294.

Castillo Valencia, María Del Pilar.

2009 "La decisión de desplazarse: un modelo teórico a partir de un estudio de caso." *Análisis Político* 22(65) : 33-52.

Clark, David H, and William Reed.

2005 "The strategic sources of foreign policy substitution." *American Journal of Political Science* 49(3): 609-624.

Dueñas, Ximena, Paola Palacios, and Blanca Zuluaga

2014 "Forced Displacement in Colombia: What Determines Expulsion and Reception in Municipalities?." *Peace Economics, Peace Science and Public Policy* 20(4): 585-597.

Engel Stefanie and Ana María Ibañez

2007 "Displacement Due to Violence in Colombia: A Household-Level Analysis." *Economic Development and Cultural Change*, 55(2):335-365

Granada, Soledad, Jorge A. Restrepo, and Andrés Vargas

2009 "El Agotamiento de la Política de Seguridad: evalución y transformaciones recientes en el conflicto armado colombiano". In *Guerra y Violencias en Colombia: herramientas e interpretaciones,* edited by Jorge A. Restrepo, and David Aponte, 27-124. Bogotá: Editorial Pontificia Universidad Javeriana.

Gutiérrez Sanín, Francisco.

2008 "Telling the difference: guerrillas and paramilitaries in the Colombian war." *Politics & Society* 36(1): 3-34.

Hilbe, Joseph M.

2011 *Negative Binomial Regression.* Cambridge:Cambridge University Press.

Human Rights Watch.

2001 *The "Sixth Division": Military-paramilitary Ties and US Policy in Colombia.* New York: Human Rights Watch.

Imai, Kosuke, Luke Keele, Dustin Tingley, and Teppei Yamamoto.

2011 "Unpacking the black box of causality: Learning about causal mechanisms from experimental and observational studies." *American Political Science Review* 105(4): 765-789.

LeGrand, Catherine.

1984 "Labor acquisition and social conflict on the Colombian frontier, 1850–1936." *Journal of Latin American Studies* 16(1): 27-49.

Medina Gallego, Carlos.

1990 *Autodefensas, paramilitares y narcotráfico en Colombia: origen, desarrollo y consolidación, el caso Puerto Boyacá.* Bogotá: Editorial Documentos Periodísticos.

Oslender, Ulrich.

2008 "Another history of violence: the production of “geographies of terror” in Colombia's Pacific Coast region." *Latin American Perspectives* 35(5): 77-102.

Romero, Mauricio.

2003 *Paramilitares y autodefensas: 1982-2003.* Bogotá: Editorial Planeta SA.